ROLE STRESS OF WOMEN IN AGRICULTURE- AN ECOLOGICAL PERSPECTIVE

BY
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2004

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Mrs. **K.SUMAN KALYANI** has satisfactorily prosecuted the course of research and the thesis entitled **"ROLE STRESS OF WOMEN IN AGRICULTURE – AN ECOLOGICAL PERSPECTIVE".**

Submitted is the result of original research work and is of sufficiently high standard to warrant its presentation to the examination. I also certify that the thesis or part thereof has not been previously submitted by her for a degree of any university.

The assistance and help received during the course of investigation have been fully acknowledged.

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This is to certify that the thesis entitled **"ROLE STRESS OF WOMEN IN AGRICULTURE – AN ECOLOGICAL PERSPECTIVE"** submitted in partial fulfillment of the requirements for the degree of **DOCTOR OF PHILOSOPHY IN HOME SCIENCE** of the Acharya N.G.Ranga Agricultural University, Hyderabad, is a record of the bonafied research work carried out by Mrs. **K.SUMAN KALYANI** under my guidance and supervision. The subject of the thesis has been approved by Student's Advisory Committee.

No part of the thesis has been submitted for any a degree or diploma. The published part has been fully acknowledged. All the assistance and help received during the course of investigation have been duly acknowledged by the author of the thesis.

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ABSTRACT

Women constitute almost half of the world's population, account for 60 percent of the working hours, contribute up to 30 percent of the official labour force, yet receive only ten percent of the income and own less than one percent of the world's property (Anon, 1980; Rao, 2001; Yadav, 2001). It is believed by historians that it was women who first initiated farming by domesticating crop plants. While men went out for hunting, women started gathering the seeds of plants and began cultivating them to meet their food, fibre and fuel needs (Swaminathan, 1985). The problem of role stress in women, particularly farm women is an important aspect of the process of social change in India. The role stress experienced by the women is multi dimensional and needs deep probing. Emerging studies suggest that if the role stress is not properly coped with, it affects the performance in a dysfunctional style resulting in exhaustion, irritation, ineffectiveness and inaction. To understand the exact role of farm women it would be appropriate to study the women in process- person context model or ecological model in relation to time and space.

Recent studies highlight that increasing number of rural women in India are not simply housewives, but are in fact farmers (Vandana, 1991). The rural farm women have multifarious roles which demand more time and effort. The present study makes an attempt to analyse the role stress of farm women in an ecological perspective. The total

sample of the study comprised of 240 farm women drawn purposively by Quota sampling method from 12 different villages of 4 mandals from 2 districts (Guntur & Kurnool) of Andhra Pradesh. Keeping the role stress as dependent variable, the independent variables viz., personality (self-efficacy, self esteem, locus of control, physical health and gender role orientation), family process (family size, family type and family environment), coping (coping strategies and support system) and the demographic variables (age, education, caste, income, land holding, socio economic status, farming experience, age at marriage, marital status and number of children) were considered for the study. The percentages, means, correlations, multiple regressions and path analysis were the different statistical procedures adopted for present study.

To study the role stress of farm women, a scale on role stress has been developed by the investigator. Demographic variables were studied through a general information schedule. The self-efficacy, self esteem, locus of control, family environment, coping and support scales were used to measure respective psychological traits. The profile analysis of farm women with respect to the demographic characteristics revealed that a majority of the farm women were middle aged, illiterates, had low income, belonged to small farmer category, had low material possession with low socio-economic status, medium family size, nuclear families, married earlier, with a high farming experience.

Regarding personality traits, a majority of the farmwomen had low self-efficacy, low self-esteem, high femininity and chance control as their locus of control trait. The results of the study indicated that the farm women had low physical health, low reproductive health and moderate physiological health. The farmwomen had high femininity, cohesion, expression, conflicts, acceptance and caring as the components of family environment. The results indicated that the farm women had high avoidance coping behaviour compared to the approach strategies.

The farm women had low instrumental, informational and service support with high socio emotional support. They perceived high role stress in micro, exo and macro sub systems, where as in the meso system, moderate stress was observed. They had higher role overload with moderate role expectation conflict, inter role distance, role erosion, role conflicts and low role stagnation & self-role distance.

Significant differences were observed between educated and uneducated sample of the women with regard to self-efficacy, self-esteem, locus of control, androgyny, logical thinking, positive appraisal, micro system role stress, exo system role stress, and macro system role stress. Descriptive analysis in the dimensions of self-efficacy, locus of control and androgyny and coping strategies of cultivators and wage workers shows substantial differences. The cultivators significantly differed with labourers in all the role stress aspects of micro, meso, exo and macro sub systems with labourers having higher role stress.

Among all the demographic factors, education, income, caste, socio economic status, number of children and land holding were significantly and negatively correlated with role stress. The personality variables self-efficacy, locus of Control (IC), health, and androgyny were found to have significant and negative correlation whereas femininity had a positive correlation with the role stress. Family processes; cohesion, expressiveness, acceptance and caring and the total family environment had a negative and significant correlation. Almost half of the selected variables have shown significant

correlations with the role stress. All the subsystems were well correlated with each other in the process of role stress.

It is interesting to note that the demographic variables in the micro system did explain about a substantial amount of 50 percent variation in role stress of micro system, where, maximum contribution was explained by the variables education, income, socio-economic status. The personality variables in the micro-system had contributed a maximum amount of 58 percent variation in the micro- system, in which the coping, support and self-efficacy had exerted maximum influence on the role stress.

In meso-system, the demographic variables explained only 4 percent of variation whereas personality variables explained about 28 percent variation. The variables socio-economic status, self-efficacy, masculinity, androgyny, expressiveness and support were found to exert impact on the role stress dimension.

Among exo-system, the demographic variables explained 52 percent of the variation. Caste, Socio-economic status, marital status and family size were found to be maximum contributing variables. The personality variables in the exo-system did explain about a maximum amount of 62 percent variation. The variables self-efficacy, self-esteem, androgyny, coping and support were found to exert maximum impact on role stress of exo-system.

In macro-system the variation of 42 percent was observed by demographic variables where education, caste, land holding, SES and family type have significant regression coefficients. The personality variables in the macro-system did explain about an amount of 21 percent variation in the macro- system, where the self-efficacy, self-esteem, femininity, coping and support were found to contribute substantially.

Overall systemic role stress variables explained 27 percent of variation by demographic variables, where education, caste, land holding and SES were found to contribute to a large extent. The personality variables in the overall systems did explain about a maximum amount 33 percent variation in the overall systems, where the self-efficacy, self-esteem, cohesion, coping and support were found dominant. The demographic variables explained at about 13 percent variation of the role conflicts. Education, Family type, age at marriage, number of children were dominant demographic variables contributing to role stress. The personality variables of role conflicts explained about 16 percent variation in the micro- system, where the self-efficacy, self-esteem, femininity, expressiveness and acceptance & caring were found to play the major role in reducing the stress component.

It is fascinating to note that coping and support were drastically reducing the role stress of farm women among all the sub-systems. More over, each subset of the variables is interrelated and intra-related leading to a common factor, role stress. A change in the independent variables may have a tremendous impact on the role stress.

The present study opens avenues to sociologists and extension workers in the society in recognizing the exact role of farm women, their capabilities, strengths, weaknesses, opportunities, threats, working conditions and role stress from a systemic point of view. The study paves way for researchers and policy makers to plan and design women friendly environment, free from gender atrocities, enriched with resources in the context of socio economic scenario.

****

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To my Lord,
God's gift graced on me,
This bouquet, the replica of my brain,
What can I offer for You,
A floret of service to the needful.

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CHAPTER - I

INTRODUCTION

The nation would not march forward if the women are left behind
– Swami Vivekananda

It is believed by some historians that it was women who first initiated farming by domesticating crop plants. While men went out for hunting, women started gathering the seeds of plants and began cultivating them to meet their food, fibre and fuel needs (Swami Nathan, 1985).Women constitute almost half of the world's population, account for 60 percent of the working hours, contribute up to 30 percent of the official labour force, yet receive only ten percent of the income and own less than one percent of the world's property (Anon, 1980; Rao, 2001; Yadav, 2001). In India, Out of 90 millions, about 5.23 million women are engaged in organized sector and 85 million women in the unorganized sector particularly in the agricultural sector, comprising a formidable 88 percent.

In developing countries, women in rural areas are often considered as invisible farmers (Yadav, 2001). Besides engaging themselves in a variety of activities both on the farm and at home, the farm women also contribute to the family income through their wage earnings. In poor households, their earnings form a major part of their family income. They contribute a larger share of what they earn to basic family maintenance than men (Mencher, 1987; Sinha, 1999; Nair & Siddagangamma, 2000). A majority of the economically active women are from the marginal and smallholder categories (Duvvury, 1989). Nearly 84% of the economically active women in India are engaged in agriculture as compared to 63% of men. Emerging studies suggest that increasing number of rural women in India are not simply housewives, but are in fact farmers (Vandana, 1991).

The rural women participate in a broad range of agricultural activities such as production, processing, preservation, and utilization of food (Singh et al., 1996). They play key roles in the entire food system, starting from the selection of seeds through sowing, manuring, weeding, harvesting, threshing, winnowing, drying, stacking to feeding the family from the harvested produce (Hegde, 1999; Malik, 1999; Lalitha, 2000; Rao, 2001). Most importantly, they play a major role in the decision making process at the farm household level, influencing the desirable features of a particular commodity or crop or animal species. They influence adoption, implementation of new technologies, management or decision making process and related production oriented features (Sreedevi & Rao, 1997). It has been shown that whether it is shifting cultivation, subsistence and low input agriculture, or high input agriculture, women work longer and harder than men though they are paid less (Bhati and Singh, 1987; Menon, 1987; Kelkar, 1981; Singh, 1987).

The problem of role stress in women, particularly agricultural women is an important aspect of the process of social change in India. Traditionally, Indian women worked within the framework of the family system. Today they have joined their hands with men in the work force in the organization. The consequent outcome is that the women live in two systems and need to perform both familial as well as occupational roles. This in turn leads to a number of role stresses among the farm women (Hemalatha & Suryanarayana, 1983; Christopher, 2001). As the working women need to perform multiple roles, they are highly prone to stress (Sinha, 1987; Mathur, 1992; Viswanathan, 1994; Narang, 1996; Thomas & Vindhya, 2000). The farm woman faces an obvious dilemma between traditional and emerging roles both by the family and the society. As a mother and wife she must conform to the traditions and ideal of hard working on one side and she must be result oriented, independent, persistent and innovative on the other hand. There may be tensions and conflicts on account of this multifarious nature of work. The domestic role requires a cooperative attitude as opposed to the competitive spirit demanded by the work role. Thus two personalities need to be combined in performing the multifarious roles. Dilemmas may arise due to the conflicts in obligations, attachments, desires and so on related to one's network of relatives on one hand and the work associated on the other.

The farm women perform extremely tedious, time and labour intensive work and spend long hours on these operations resulting in fatigue and drudgery as most of the jobs are done manually (Verma, 1998). Apart from long hours of productive physical labour and feelings of exhaustion, they perform both domestic and co-provider's role and are exposed to high personal stress (Laxmi Devi, 1988; Punia, 1991; Singh, 1996; Dash, 2000; Ghosh, 2000; Meti, 2001). The multiple roles like home maker, mother, and daughter- in law, family care giver, decision maker, bread winner, farm worker or manager often create tension and anxiety in the farm women in fulfillment and doing justice to the multiple and simultaneous roles (Kaur and Punia, 1984; Knaub et al., 1988; Sundaram et al., 1984). Research studies have emphasized that the farm women are exposed to lot of physical, psychological, and occupational health hazards which in turn cause lot of stress (Rajani, 1988; Venkatesan & Karunanithi, 1988; Suman & Maurya, 1993; Prasad & Balaguru, 1994; Kalyani, 1998).

The multifarious work situations of the farm women are unpredictable and uncontrollable. Climatic vagaries and natural calamities during crisis situation may bring time pressure upon them. The women have to delicately balance their work schedule with the unpredictable nature of the calamities. Thus the increased and varied activities demand extra time, energy and effort. There may be a practical difficulty of combining the work commitment at farm with their roles at home. There may be physical and psychological strain to balance the workload due to the challenges present in different subsystems of the

environment. Apart from this, the men folk often express their anger and emotions on the women. Thus women are the shock absorbers of the stress and strain of the present day life.

The role stress experienced by the women is multi dimensional and needs deep probing. Emerging studies suggest that if the role stress is not properly coped with, it affects the performance in a dysfunctional style resulting in exhaustion, irritation, ineffectiveness and inaction. To understand the exact role of women it would be appropriate to study the women in process- person context model or ecological model in relation to time and space. In this model, the woman is studied in relation to her activities, roles, relationships, significant persons, social relationships, institutions and the events affecting her development across different sub systems of her environment. The role stress is analytically studied under four different ecological subsystems; micro, meso, exo and the macro environments.

In spite of their enormous contributions to farming, and innumerable number of welfare programmes and developmental projects, women are still left behind as secondary citizens. In spite of the sensitivity of the researchers and extension workers to gender issues in agriculture, they focus their attention on male members of the household. Most people fail to recognize the work, which the women do in agriculture (Waring, 1988). Women's participation in agricultural research, extension and training is next to insignificant (Vandana, 1991). The literature on women's subordination has identified the family as a site for the reproduction of relations of power, sexual division of labour and the meaning of gender (Borah, 1994).

NEED AND SCOPE OF THE STUDY

- Women especially in rural India are highly exploited, oppressed and neglected group and require concentrated efforts in designing appropriate research areas to suggest developmental programmes contextual to their social and emotional levels.

- Understanding the women's role in various issues of rural productive activities helps in designing appropriate drudgery and stress free technologies. The study helps the researchers to plan and design women friendly technologies.
- The psychosocial problems of women are receiving much attention from researchers and policy makers. Married farm women are forced to perform both domestic and co-provider roles with their primary role setup of wife and mother and a bread winner's role. As a result, the concept of women's development has been changed dramatically over the years from welfare, development and now to empowerment.

- Even though there are quite a number of studies related to farm women, the role stress of farm women in ecological framework has not been studied so far. The study of farm

women in ecological context provides an opportunity to understand the intensity of the problem clearly and accurately. Hence, it is worthwhile to explore this area in order to get a clear picture of stress of the farm women.

- Women are forced to do menial and unskilled jobs in which their capacities and are under-estimated and under-utilized. 90 percent of the total female work force is employed in unorganized sectors where social benefits and economic returns are low.

- A series of research studies, national and international seminars conducted during last two decades have emphasized that the farm women are exposed to lot of physical, psychological and occupational health hazards which in turn cause lot of stress (Kalyani, 1998; Rajini, 1989; Mrunalini, 1999).

The study has been undertaken with the subsequent objectives

GENERAL OBJECTIVE :

To study the role stress of farm women in an ecological perspective.

SPECIFIC OBJECTIVES :

- To study the selected personality dimensions of farm women; self efficacy, self esteem, locus of control, physical health and gender role orientation.
- To study the family processes of farm women; family environment, support system and coping strategies.
- To construct a role stress inventory of farm women, in an ecological perspective.
- To measure the role stress of farm women across different sub systems and the relationship between the role stress and different subsystems.
- To examine the relationship if any between the selected personality dimensions, family processes and the role stress.
- To study the relative contribution of demographic factors, personality factors and family processes on the role stress of farm women.

OPERATIONAL DEFINITIONS:

Operational definitions are necessary for studying the psychological and social issues as these definitions may give a deep probing and understanding into the concept for classification, analysis and for drawing relationships further in the present study. Some of the definitions given by the theorists have been modified to suit the present study.

Ecological Environment:

It is conceived as the nested arrangement of concentric structures, each contained within the next. These structures are referred to as the micro, meso, exo and macro systems (Bronfenbrenner, 1979), which are placed like a set of Russian dolls (concentric rings) one inside the other. Each layer of the environment is viewed as having a powerful impact on the development of the individual. The ecological environment is composed of four structural levels, which range from the most immediate settings to the more remote contexts. These systems and the relationships among them can change over the course of development.

Micro System:

According to the present study, the micro system refers to a pattern of activities, roles and interpersonal relations experienced by the farm woman in a given setting with particular physical and material characteristics. This is the lower order subsystem from which the interactions are initiated. Micro system constitutes the immediate environment comprising of agricultural, household, biological, economic and social roles as its components.

Meso System:

According to the present context, the meso system refers to the system comprising the interrelations among two or more settings in which the woman actively participates. It comprises interrelationship between all the sub systems crossing the boundaries. It is a translucent system where the roles are not explicitly seen. The interrelations among different subsystems were considered under meso system.

Exo System:

Exo system refers to the system, in which the farm woman does not involve as an active participant but the events occurring in this system may affect the roles of woman indirectly. The Panchayat programmes, bank, school, community services, hospital, social welfare programmes and health services are the components of the exo system. The other set includes husband's occupation, his workplace, his co- workers and his habits (bad\ good).

Macro System:
According to the present study, this system refers to the consistencies in the form and content of lower order systems. It consists of the most general values, beliefs and ideologies that influence the other subsystems of ecology. This is the higher order subsystem where all the other subsystems are specific and concrete manifestations. It is the overarching institutional patterns of culture. The social issues like culture, values, religion, illiteracy, poverty and caste system are the components of macro system.

Women in Agriculture:
According to the present study, women having Agriculture as their main occupation with one or more secondary allied agricultural occupations like Animal Husbandry and/or Poultry and/or Horticulture.

Role:
A pattern of consistent behaviour or a position a woman in agriculture holds in a specific social setting. Havighurst and Neugarten (1962) have defined role as a coherent pattern of behaviour common to all persons who fill the same position or place in society and a pattern of behaviour expected by other members of the society. Goffman (1969) observed that the role consists of the activity that the incumbent would be engaged to act solely in terms of normative demands upon someone in his position. Mitchell's Dictionary of Sociology (1968) defined that a social role is the expected behaviour associated with a social position. Role is a relational term. It is individual, who plays roles and occupy positions.

Role Stress:
It refers to the unjust psychological pressure, threat or strain perceived and experienced by the woman in performance of her roles either independently or due to a number of mutually exclusive or incompatible roles simultaneously from various distances from her role space (Pareek, 1983) (the system of roles she occupies and performs e.g., Micro System in the present context) or from her role set (the system of various roles of which her role is a part e.g. outer systems in the human ecological environment).

Based on the aforesaid definition, the following definitions are evolved by adopting the two theories from the literature, viz. Ecological theory of Bronfenbrenner, 1979; and Role Stress Dimensions by Pareek, 1983.

Ecological Role Stress:
It refers to the stress perceived by the farmwoman in performance of different roles independently in her role space. The stress in role performance may be from different factors present in different sub systems; micro, meso, exo and macro systems.

a) Role Stress due to Micro System:
Stress perceived by the woman in performance of her roles due to the various factors present in her immediate environment. This is further categorized in to agricultural roles, household roles, biological roles, economic roles and social roles.

b) Role Stress due to Meso System:
Stress perceived by the woman in fulfillment of her roles in maintenance of interrelations between different settings.

c) Role Stress due to Exo System:
The stress perceived by the farm woman in her roles due to the existence of passive harmful factors, where the woman is not involved as a direct participant.

d) Role Stress due to Macro System:
The stress experienced by the farm woman in her roles due to the presence of macro forces present in the outermost system.

Conflictive Role Stress:
It refers to the unjust psychological pressure, threat or strain perceived and experienced by the woman in performance of her roles either independently or due to a number of mutually exclusive or incompatible roles simultaneously (Pareek, 1983). The concept of self is central to the concept of role. The various roles occupied and performed by the farm woman are patterned around the self. The roles are at various distances from the self and from each other. These relationships define the role space. The distance between the role and the self will indicate the extent to which the role is integrated with the self. The role space can be defined as the dynamic interrelationship both between the self and the various roles the farm woman occupies, and amongst these roles. The identified role conflicts in the role space of the farm woman are as follows:

a) Role Overload (RO):
It is the feeling that there are too many expectations from different significant roles in her role set (Pareek, 1983).
i). Quantitative Over load: The role stress raised when there is too much work to do in different fields due to physical and psychological strain.
ii). Qualitative Overload: The role stress aroused, when the tasks are too difficult and there is accountability in the role due to physical and psychological strain.

b) Role Expectation Conflict (REC):
It refers to the stress generated due to different expectations by different significant persons about her role and the feeling of ambivalence as to whom she should please (Pareek, 1983).

c) Inter Role Distance (IRD):
It is the perception of stress when there is a conflict between occupational roles and non-occupational roles (Pareek, 1983).

d) Role Stagnation (RS):
It refers to the feeling of a woman that there is no opportunity for further progress of her career and being stuck in the same role (Pareek, 1983).

e) Self-Role Distance (SRD):
It is the perception of stress when there is mismatch between the woman's self-concept and her present role (Pareek, 1983).

f) Role Erosion (RE):
It is the feeling of a woman that some functions, which should properly belong to her role, are transferred to or performed by some other role. This may also happen when the functions are performed by the woman herself but the credit goes to someone else (Pareek, 1983).

Self-Efficacy:
It refers to the comprehensive sense of one's own capacity or capability, effectiveness, strength or power to solve the problem and to attain desired results as perceived by the woman herself (Ralf Schwarger and Matthias Jerusalem 1993).

Self Esteem:
It refers to the extent to which a person likes and respects herself. It is an attitude of self-acceptance, self-approval and self-respect. It indicates the extent to which the woman believes herself as capable, significant, successful and worthy (Kapadia and Verma 1989).

Locus of Control:
It refers to the degree to which the woman believes that she is the master of her own fate. It is the centre of responsibility for control of behaviour (Levenson, 1992).
Internal locus of control:
It refers to the conviction that one can use one's behaviour to achieve desired goals.

External locus of control:
It refers to the belief that real power resides outside the individual, and that forces other than oneself determine one's life.

Health:
It refers to the status of physical, physiological reproductive and overall health status of the farm woman. According to WHO definition, health is a state of complete physical, mental and social well-being and not merely the absence of disease. It is physical fitness plus well-balanced emotions. Health data can be classified as a) psychological, b) psychosomatic and c) physiological.

Gender Role Orientation:
It refers to the pattern of masculine or feminine behaviour that characterizes an individual in terms accepted by the particular culture. The gender role is largely determined by one's rearing and may or may not conform to the individual's biologically determined sexual identity (Kapadia and Verma, 1989).

Androgynous sex role:
It refers to a mixture of sex roles in which there is a confusion or uncertainty about gender identity and behaviour that may be labeled both masculine and feminine. It is a combination of male and female characteristics in one individual.

Family Environment:
It refers to the socio- emotional climate of the family, which measures the interrelationships in the family (Bhatia and Chadda, 1996). It includes relationship dimensions of family cohesion, expressiveness, conflict, acceptance and caring.

Coping Strategy:
It refers to the person's cognitive and behavioural efforts to manage, reduce, minimize master or tolerates the internal or external demands aroused due to the person- environment transaction that is appraised as taxing or exceeding the resources. It may be problem focused, emotion focused, or perception focused (Lazarus & Folkman 1984).

Support System:
It refers to the system, which gives instrumental, socio- emotional, informational and service support to the individual from various sources of the society. It refers to the functions performed for a distressed individual by significant others such as family members, relatives and friends etc.
The investigator attempted to study the role stress present in different sub systems by various tools and methods elucidated in subsequent chapter.

RATIONALE

Statistical data from studies in various countries demonstrates that there is a progressive increase in the number of women involved in agriculture both as cultivators and wageworkers. More than 550 million women or 60 percent of the world's population live below the poverty line in rural areas. Women in rural India are highly exploited and hence require concentrated efforts in designing appropriate research areas to suggest developmental programmes contextual to their social and educational levels.

In recent years, the secondary status of women, the psycho-social problems and their multiple roles are receiving more attention from researchers and policy makers. The study of farm women in relation to her ecological settings is given prior importance, which provides an opportunity to understand the intensity of the problem.

Married farm women are married women first with their primary role set of wife and mother, and then they are farm women performing their secondary role of agricultural operations. They have conflicts and tensions on both these accounts. How the two roles in the two spheres – home and farm-fit together or contradict one another is yet an unrehearsed phenomenon, into which the present study has thrown light.

LIMITATIONS OF THE STUDY

The study has its own limitations

- The present study is confined to a limited sample of subjects and hence may not be generalized for all situations.
- Role stress of farm women is a psychological variable and hence may not be replicable and may vary from time to time.
- Personality is a dynamic and unique organization within the individual and hence the personality components may also have their own impact on role stress according to time and circumstance.
- The environment is not a static force that affects the person in a uniform way. Instead, it is dynamic and ever changing and hence time and space are essential elements in determining the factors leading to different psychological components.

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CHAPTER II
REVIEW OF LITERATURE

A comprehensive review of literature provides background information and clear insight in the area of research, which aids the investigator in designing and analyzing the research work and thereby preventing duplication of studies (Gay, 1987). The range and breadth of stress scholarship during the past few decades is impressive in terms of empirical output as well as conceptual and methodological advances. Among the major themes that characterize the literature, the dynamic role of demographic, and personality and coping process variables on role stress is given recurrent prominence. Hence the literature in the field of role stress for the past few decades was dwelled upon and presented in this chapter under the following heads.

2.1. Conceptual Perspective on Stress
2.2. Historical Perspective on Stress
2.3. Theoretical Perspective on Stress
2.4. Approaches to study Stress
2.5. Role Stress & Demographic Variables
2.6. Role Stress & Personality Variables
2.7. Role Stress & Coping Process Variables
2.8. Studies on Role Stress Dimensions
2.9. Studies on Women in Agriculture

2.1 STRESS – THE CONCEPTUAL PERSPECTIVE

Although stress is a concept that has interested psychologists for many years, early studies of stress were done within the field of medicine. In the first decade of this century, physicians described the relationship between certain personality patterns and subsequent diseases. A concept of homeostasis, that an individual's internal system should ideally remain constant in spite of external changes was proposed by Walter Canon (1935). The concept of homeostasis has relevance for stress when we think about ourselves as a system that balances specific resources with the demands imposed upon us.

The link between external factors and the body's internal responses was furthered by Wolf and Wolff (1943), the study of changes in stomach activity that accompanied various emotions. Physiological changes, such as altered blood flow and changes in gastric secretions were associated with changes in emotions. Much of their research was later developed into modern medicine's scientific study of psychosomatic diseases such as ulcers or asthma. In Psychology, stress refers to a state of the organism resulting from some interaction with the environment. In Psycho- physiology, stress is that stimulus which imposes detectable strain that cannot be easily accommodated by the body and so presents itself as impaired health or behaviour. Stress as a concept has been studied for almost 100

years. This history of research and theory has given us several different ways to think about stress, since the research that has been reported has considered the experience of stress from several different perspectives.

The modern world, which is said to be a world of achievements, is also a world of stress (Tyagi and Sen, 2000). One finds stress everywhere, in the world from the womb to tomb. Right from the time of birth till the last day of life, an individual is invariably exposed to various stressful situations. The stress may get affected by many positive and negative factors, which are also called as pull and push factors ultimately leading the individual to be balanced between these factors.

Stress is derived from the Latin word 'stringer', which means to draw tight and popularly used in the seventeenth century to mean hardship, adversity or affliction. It was used in the eighteenth and nineteenth centuries to denote force, pressure, strain or strong effort with reference to an object or person. Stress has been conceptualized in the following ways: i) as a stimulus or an external force which is perceived as threatening ii) as response to a situation demanding an individual to adopt to change, physically or psychologically iii) as an interactional outcome of the external demand and internal resources and the resistance opposed to the external demand iv) as a personal response to a certain variation in the environment and more comprehensive combinations of the above factors. As a comprehensive definition, the stress is a dynamic condition in which an individual is confronted with an opportunity, constraint, or demand related to what he or she desires and for which the outcome is perceived to be both uncertain and important.
Various definitions given by different psychologists are compiled below.

Walter canon (1935) defined stress as a fight or flight syndrome that is when an organism is stressed either it responds by fighting with the stress or running away from it.

The concept of stress was first introduced in the life sciences by Hans Selye (1956). Selye, the father of modern stress research explained stress phenomenon in a comprehensive model stating that when an organism is confronted with a threat, the general physiological response occurs in three stages; alarm reaction (shock phase), resistance (adaptation phase), exhaustion (declining phase). Selye (1956) defined stress as any external event or internal drive which threatens to upset the organismic equilibrium. Selye made a distinction between positive stress, called eustress and negative stress, called distress.

Kahn, Wolf, Quinn, Snock, & Rosenthal (1964) defined stress as an event or some thing that places demands on the individual. They proposed three main role stresses i.e. role conflict, role ambiguity and role overload. They have indicated that the role behaviour is usually role taking behaviour of the people in the organizational milieu.

Kahn et al. (1964) defined role stress as the degree of incompatibility of expectations communicated to a focal person by his role sender. It is through the role that the individual interacts with and gets integrated with the system.

Lazarus (1966) viewed that stress occurs when there are demands on the person, which tax or exceed his adjustment resources.

Janis and Leventhal (1968) identified stress as an unpleasant emotional experience associated with elements of fear, dread, anxiety, irritation, annoyance, anger, sadness, grief and depression. They viewed stress as an intervening variable with antecedent causes and behavioural consequences.

Wolf (1968) described stress as an inherent characteristic of life. He has given considerable importance to the idea that different stressors will have different meaning for different individuals in life with his past experiences and his personal characteristics.

Mc Grath (1970) defined stress as a perceived imbalance between demand and response capability under conditions where failure to meet demands has important consequences.

Mc Grath (1976) explains that there is a potential for stress when an environmental situation is perceived as presenting a demand which threatens to exceed the person's capacities and resources for meeting it, under condition where he has expected a substantial differential in the rewards and cost from meeting the demand versus not meeting it.

According to Kaplan, French, French, Harrison, & Pinneau, (1975) the stress refers to any characteristic of the job environment that causes a threat to the individual.

Manson (1975) defined stress as constituent of a) stimulus (external force acting on the organism) b) response (changes in the physiological functions) c) interaction (interaction between an external force and the resistance opposed to it) and d) more comprehensive combinations of the above factors.

McLean (1979) explained that stress is neither a stimulus, nor a response, nor an intervening variable, but rather a collective term, which deals with any demands, that tax the system (physiological, psychological or social) and the response of that system to the taxing demands.

Cherniss (1980) conceptualizes burnout as a transactional process consisting of three stages. 1) An imbalance between resources and demands (stress); 2) immediate, short-term emotional response to this imbalance (strain); the response characterized by feelings of anxiety, fatigue and (emotional) exhaustion and 3) a number of changes in attitude and behaviour.

Cooper and Marshall (1978) explained that stress is essentially individually defined and so must be understood with reference to characteristics of both the individual and his environment.

Beehr and Newman (1978) defined stress in terms of interaction of the person with job related factors, which disrupt or enhance his or her psychological and physiological condition.

Cox (1978) defined stress as perceptual phenomenon arising from a comparison between the demand on the person and his ability to cope. An imbalance in this mechanism when coping is important gives rise to the experience of stress.

Agarwala, Malhan and Singh (1979) believe that stress is the term used variously by scholars of different disciplines. Thus, in physics, stress is an external force, which acts on a body to produce strain. In physiology the various changes in the physiological functions in response to evocative agents denote stress. In psychology, stress refers to a state of the organism resulting from some interaction with the environment. In Psycho – Physiology, stress is that stimulus which imposes detectable strain that can be easily accommodated by the body and so presents itself as impaired health or behaviour.

During the last 20 years the term stress has come to be widely used in relation to work organizations.

Schuler (1980) defined stress as a dynamic condition in which an individual is confronted with an opportunity, constraint or demand related to what he desires and so for which the outcome is perceived to be both uncertain and important.

Caplan (1981) defined stress as a condition in which there is a marked discrepancy between the demands made on an organism and the organism's capacity to respond, the consequences of which will be detrimental to conditions essential to its well being.

Sanders (1983) defined stress as a discrepancy between effort and energy adjustment mechanism. According to him stress arises whenever the effort mechanism of organism is either overloaded, overtime or falls altogether short in accomplishing the necessary energy adjustments.

Selye (1984) defined stress as a response. He defined stress as a non – specific response of the body to any demand made up on it.

Lazarus and Folkman (1984) defined stress as relationship between person and the environment that is perceived by the person as taxing or exceeding his or her resources and endangering his or her well being. This definition emphasizes i) that the job stress is an interactive process, involving the combined effects of individual characteristics on the one hand and physical and psychosocial stressors in the work setting on the other ii) that the psychological effects of job stress include both affective distress (e.g. anxiety, burnout, job dissatisfaction) and behavioural changes (e.g. in eating habits, alcohol use and smoking) and iii) that continued exposure to adverse work conditions may lead to long-term medical problems (such as hypertension, cardio – vascular disease or chronic depression).

Cox (1988) defined stress as the process of cognitive appraisal involving continual monitoring of at least four aspects of the person's transactions with his environment and a continual balance between them. These four aspects are a) demands made on the person b) their personal characteristics and coping resources, their knowledge, attitudes and behavioural style c) constraints under which they have to cope and d) the support they receiver from others in coping

Golembiewski and Munzenrider (1988) said that burnout might be prompted by sudden exposure to severe stress. They suggest that chronic burnout is more likely to derive from the work setting while acute burnout is more likely to derive from personal trauma.

Everly (1989) claimed that stress was a physiological response. He argued that stress was a response to biological or psychosocial stressors.

Rice (1992) defined stress from three perspectives namely environmental, (external to the body), as a mental state of tension or internal and the body's own physical reaction.

Srivastava (1993) defined stress as a dynamic condition in which an individual is confronted with an opportunity, constraint or demand related to what he or she desires and for which the outcome is perceived to be both uncertain and important.

Coleman (1996) briefed that the seventeenth century has been called the age of enlightenment, the eighteenth the age of reason, the nineteenth the age of progress and the twentieth the age of anxiety and stress. Thus it is not surprising that interest in stress has been rising with the advancement of the present century.

Pareek (1997) defined that stress is like electricity. It can make a bulb light up and provide brilliant illumination. However, if the voltage is higher than what the bulb taxes and the coping mechanism for higher voltage like regulators are ineffective, it can burn out the bulb. The phenomenon of burnout is the harmful effect of stress resulting in a loss of effectiveness. Burnout can be defined as the end result of stress experienced, but not properly coped with, resulting in exhaustion, irritation, ineffectiveness, inaction, discounting of self and others and problems of health. The opposite phenomenon of glow up occurs when stress is properly channelized, resulting in a feeling of challenge, job satisfaction, creativity, effectiveness and a better adjustment to work and life.

2.2 STRESS – THE HISTORICAL PERSPECTIVE

Stress is derived from the Latin word Stringer, which means to draw tight and was popularly used in the seventeenth century to mean hardship, straits, adversity or affliction. In physical science, the term stress refers to the internal force generated within a solid body by the action of any external force.

During the late 18th century, stress denoted 'force, pressure, strain, or strong effort', referring primarily to an individual or to an individual's organs or mental powers.

The Traditional Indian Thought:

The Indian scholarly tradition includes a vast field of history, philosophy, culture and religion. This country has a long history and some of the scriptures referred to as Indian tradition date as far back as 1000 BC. The systems of thought include Vedas, Upanishads, Puranas, Tantras, Agamas, Darsanas, Ayurveda, Dharmasastra, Bhaktisastra, Natyasastra etc. In India, Manu's sociology clearly put women at a disadvantaged position. Kautilya, in his Arthashastra assigned them inferior position. Although the authors of the Vedas and other ancient scriptures of the Hindus had venerated women as goddesses and bestowals of happiness, peace and prosperity to men, the post vedic and later periods of Indian history, particularly the medieval period dominated by Muslim and Rajput rulers, created innumerable problems and difficulties for the Indian women and made them pathetic, exploited and oppressive group of society. The history, social philosophy, and the theories are more important aspects in tracing out the present condition of women.

The concept of stress in the modern sense is not easily found in the traditional texts of Indian culture and tradition such as Charak Samhita, Patanjali's Yogasutras and Bhagawad Gita. However, a number of concepts developed by ancient Indian scholars relate to appear similar to the phenomenon of stress. Some of these are Dukha (pain, misery or suffering), Klesa (afflictions), Kama or Trishna (desires), Atman and Ahamkara (self and ego), Adhi

(mental aberrations) and Prajna paradha (failure to lapse of consciousness). It is interesting to note that the body – mind relationship, characteristic of modern stress studies, is emphasized in the Ayurvedic (Indian) system of medicine.

The Samkhya postulates that the feeling of Dukha or stress is experienced by the individual in the course of his interaction with the world around him. This system mentions three types of stresses Personal (Adhyatmik), Situational (Adhibholik) and Environmental (Adhidevik). Personal stresses can again be of two types namely physiological and psychological. Physiological stresses are born out of imbalances between the three fundamental physiologic constituents namely Vata, Pitta and Kaph. Psychological stresses are caused by emotional states of lust, hatred, greed, fear, jealousy and depression. Situational stresses are usually caused by unwholesome interpersonal transactions, which may include conflicts, competitiveness, aggression etc. The environmental stresses are occasioned by natural calamities, extremes of temperatures, storms etc. The Yogasutra also explains that Klesa operates through four stages starting from dormant to operative modes. The Yogasutra presents a comprehensive model incorporating cognitive structuring, affective or emotional stages and adaptive reactions. It also presents a concept of Kriya Yoga, which is aimed at reducing the number and intensity of stressors and facilitates related conservation of mental energy devoid of tension, which is defined as Samadhi bhavana.

According to classical Indian thought, it is the duty of every individual to develop an internal control through being a Yogi. The Yogi is one who is either in the process of realizing or has already realized his oneness with Brahman, the absolute power behind the entire creation. Patanjali has asserted that Yoga is the means of overcoming Dukha due to Klesha. He asserts, Resort to Yoga to reduce Klesha, for achieving higher states of consciousness and for developing higher capabilities (Patanjali Yoga Sutra, 11-12).

Yoga is explained as a way of life, which disciplines a person for the higher purpose of life. Five types of Yoga have been recommended. These five types of Yoga are not alternatives to one another but are complementary in nature in all senses that one has to follow the other to give the true benefit. The five forms of Yoga are, `Hath Yoga, Karma Yoga, Jyan Yoga, Dhyan Yoga and Bhakti Yoga. Hath Yoga comprises of a series of exercises which provide a readiness for other forms of Yoga. Karma Yoga may be equated to behavioral coping aimed at minimization of Dukha. Karma yoga is nothing but selfless action as is clearly described in Gita. Jyan Yoga comprises the Yoga of intellect. It demands a cognitive approach to life. A Jyan Yogi strives to attain oneness with the absolute through an intuitive realization; self-realization comes through a lengthy process of cognitive learning where by every object and every experience is given a new meaning. Any one traversing the path of Jyan Yoga must overcome the temptation of lust, pain or anger. The Dhyan Yoga comprises the Yoga of Dhyanam or meditation. The Bhakti Yoga or the Yoga of devotion

can be described as a positive emotional attachment to one's personal God or to one's mentor. Any one who follows the path of Bhakti Yoga gets intoxicated with love to the extent that the yogi sees God in every object and everywhere and in every lairing and non - twing thing. Dhyan Yoga is overcoming, the troubles by acquiring the concentration through Dhyanam.

Thus in ancient Indian scriptures, the problem of stress were viewed from various perspectives ranging from stimulus oriented to response and psychodynamic points of view. The yoga is explained as a way of life, which moderates the process of stress.

2.3 THEORETICAL PERSPECTIVE OF STRESS

In the past two decades, empirical researches on the theme of stress have increased manifold. One of the major areas of research in India appears to be the organizational stress in general and the role stress in particular. Many major theories of stress reflect the basic principles of stimulus, response and the interaction processes. There should be internal consistency in theories to make meaningful use of principles and also to make important predictions about the role stress. Several major theories have been proposed about the role stress.

The Ecological Systems Theory, Family Stress Theory, Theory of General Adaptation Syndrome, Work Environment Model, Work Family Boundary Model, Cybernetic Theory are the different theories that are presented to have an insight into the theoretical aspects to understand the study more accurately.

The theory of Ecological systems was proposed by Bronfenbrenner (1979), on which the present study is based. The rest of the stress theories give an insight into the stress mechanism of the individual. As the present study is a blended approach where the mechanism of the stress has been viewed under different ecological systems, various theoretical conceptions related to the study are presented.

ECOLOGICAL SYSTEMS THEORY:

The Ecology is the study of interactions between living systems and their environment. Ecology is the term first coined by a German zoologist, Ernst Haeckel (1866). Human ecology links together people and their environments, as well as process, structure, space, energy and time (man's effects on the biosphere and the implications of these effects for man). The human development is a product of interaction between the growing human

organism and its environment. Ecological systems theory views the developing individual within a complex system of relationships affected by multiple levels of the surrounding environment.

Bronfenbrenner (1979) proposed the theory of human ecology. He first used the word ecology, to refer to the interaction of the person and his or her social and physical setting (environment). Bronfenbrenner defined the ecology of human development as the scientific study of progressive, mutual accommodation through out the life course between an active growing human being and the changing properties of the immediate settings in which the developing person lives as this process is affected by the relations between these settings and by the larger contexts in which the settings are embedded.

The ecology of human development is the study of mutual interaction between the developing person and the settings of contexts of development. The ecological environment is conceived as a nested arrangement of concentric structures, each contained within the other. Each layer of the environment is viewed as having a powerful impact on the development of the individual. The ecological environment is composed of four structural levels, which range from the most immediate settings to the more remote contexts. These systems and the relationships among them can change over the course of development.

The micro system: This system involves the interaction between the developing person in an immediate setting or context. It refers to the actual setting in which the developing individual lives and interacts with people. (For example, the relationship between a child and teacher or peers in the school and the relationship between an adolescent and his employer in a work setting are topics of micro system analysis). Within the micro system, interaction between any two individuals is influenced by the presence of third parties. If significant individuals in the setting are supportive, the quality of relationships is enhanced.

The micro system is a pattern of activities, roles and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics.

The meso system: The second outer layer is called the meso system. The meso system involves the relationships among the various settings or contexts in which the developing person actively finds himself or herself. (For example, for a school child the meso system involves the relationship between the school and the family or their relationship between the family and the peer group).

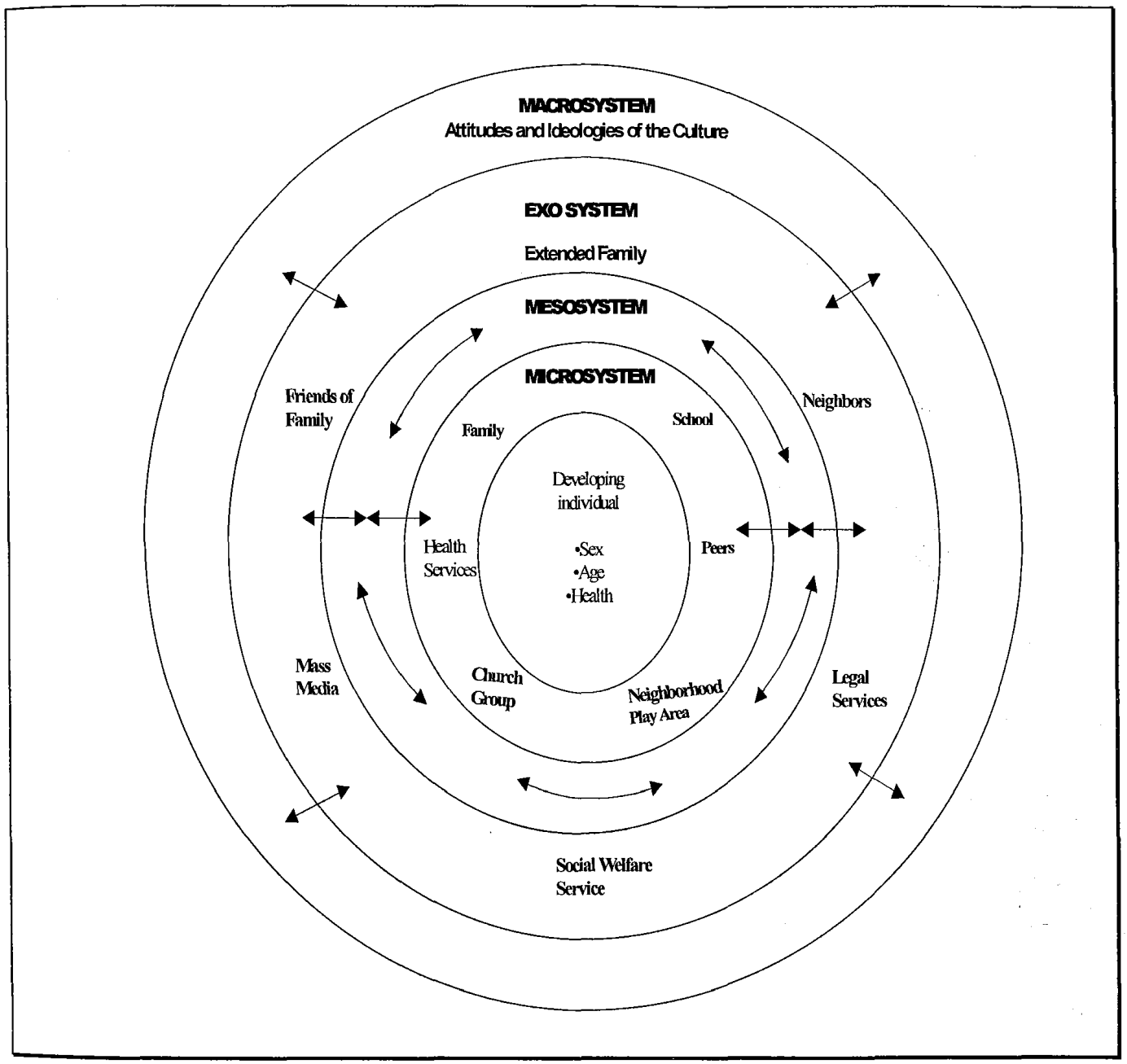
The meso system comprises the interrelations among two or more settings in which the developing person actively participates.

The Exo system: The exo system has been defined as consisting of one or more settings that do not involve the developing person as an active participant, but in which events occur that affect or are affected by what happens in the setting containing the developing person. This system includes the primary social structures that influence the developing person. The exo system would be the formal and informal institutions such as political/ governmental structures, neighborhood and community organizations, transportation networks and the informal communication networks within neighborhoods, communities and work places.

The Macro system: The macro system is the overarching institutional patterns of a culture (e.g., the economic, educational, legal, social and political systems of which the micro, meso and exo systems are specific and concrete manifestations. The macro system consists of the more general values, beliefs and ideologies that influence the ways in which special institutions are organized and therefore, the way in which human development occurs. (For example, the treatment of individual children and families in specific situations depends on the value that a particular culture or society places on the child or the family).

The macro system refers to consistencies, in the form and content of lower order systems that exists or could exist at the level of sub culture as a whole, along with any belief systems or ideology underlying such consistencies.

Figure 2.1 Ecological sub systems



Bronfennbrenner's revised view

According to Bronfenbrenner (1989), the environment is not a static force that affects the person in an uniform way. Instead, it is dynamic and ever-changing. Important events, such as the birth of a sibling, entering school, or moving to a new neighborhood, modify existing

relationships between children and their environments, creating new conditions that affect development. In addition, the timing of environmental change affects its impact.

The three significant features of the definitions according to Bronfenbrenner are as follows.

1. The developing person is viewed as a growing active individual that progressively moves into and restructures the milieu in which he/she resides.

2. The interaction between the developing person and the environment is a two directional or reciprocal relationship. In other words, there is a process of mutual accommodation to which both person and environment make contributions.

3. The environment that is relevant to human development is not limited to a single, immediate setting (home, school or work). Rather the ecological environment is much broader and includes immediate settings and interaction between immediate settings (the relationship between home and school or home and work place) and larger settings, including the culture (which influences specific settings).

Individuals select, modify and create some of their own settings and experiences. How they do so depends on their age, their physical, intellectual and personality characteristics and the environmental opportunities available to them. Therefore in ecological systems theory, development is neither driven by inner forces nor controlled by environmental circumstances. Instead, children are both products and producers of their environments, both of which form a network of interdependent effects.

This theory suggests that interventions at any level of the environment can enhance development. Bronfenbrenner (1989) emphasizes that change at the level of the macro system affects all other environmental levels, revising established values and government programmes in ways more favourable to the development has most far-reaching impact on child's well being.

FAMILY STRESS THEORY

The ABC – X model has been the dominant family stress theory for almost half a century (Boss, 1988). Family stress theory was proposed by Boss,(1988) which was originated from theory of Reuben Hill (1958).

The ABC – X of family stress:

Reuben Hill (1958) formulated the ABC-X model, which has provided a substantial base for scientific inquiry of family stress. His framework for family stress theory focuses on three variables. This model has been the dominant family stress theory for almost half a century (Boss, 1987-1988; Christeensen, 1964).

A - The provoking event or stressor

B - The family's resources or strengths at the time of the event

C – The meaning attached to the event by the family (The family's perception of an event - individually and collectively).

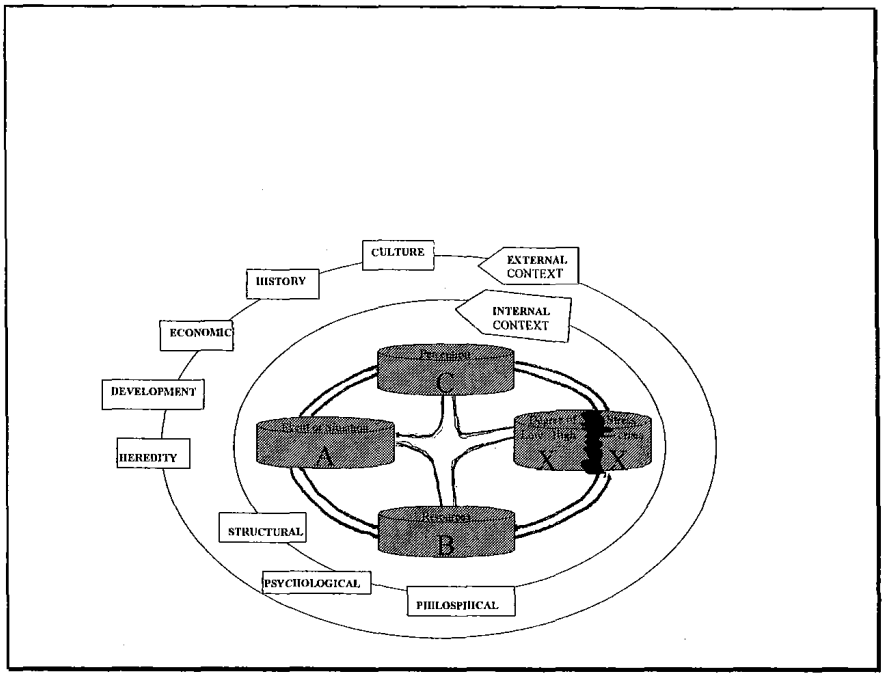
X The stress or the crisis situation (outcome of the resulting degree of stress).A linear equation for understanding family stress is no longer valid. But the elements of the context remain useful. The family's perception of the event (C) is the most important part of the stress equation.

These three variables are the foundation of family stress theory proposed by Boss (1988). According to this theory, families do not live in isolation; they are a part of larger context. The principle becomes the critical element in understanding the family stress management process. This theory divides the context into two ecological models, external context (as meso, exo and macro systems in Bronfenbrenner's model) and the internal context.

The family's external context: The external context is made up of components over which the family has no control. It includes the environment in which the family is embedded, also called the family's eco system. It consists of the constraints of the development and genetics as well as economics, history and culture. The external context has tremendous influence on how the family perceives events and manages whatever stress is produced. It talks about the time and place in which the family finds itself.

a) Historical context: The historical context of family stress is the time in history in which the event occurs in the family. The historical context identifies the climate in which a stressful event occurs in the family.

Figure 2.2 The contextual Model of Family Stress



b) Economic context: The community's or society's economy forms the family's economic context, the state of the economy influences how the family reacts to a stressful event.

c) Developmental context: The developmental context for the family is the stage in the life cycle of both the individuals and the family when the stressful event occurs. The different levels of family stress caused by the same event can be explained by developmental context. The developmental context in which an event occurs mediates the perception of events as much as the event itself.

d) Hereditary context: The family's biological and genetic context affects the health and physical strength of the family members. Some people are genetically stronger than others. Such families have more stamina and resilience when under pressure. As a result, they have more energy to deal with an event, but also the strength to persevere and continue dealing with high stress, when a stressful situation is of long duration.

e) Cultural context: The cultural context consists of the predominant ideas, values and ideals that give a distinct character to the larger society in which the family lives. Although the family's private beliefs and values are under their control and part of the internal context, the cultural context provides the canons and mores by which families define the way they live. The cultural context also defines the larger society's rules for problem solving, management styles and accepted methods of managing stress. The larger culture then

provides the rules by which the family operates at its micro level. The ethnic minority and immigrant families are often highly stressed as the incongruity between the rules of family's subculture and those in the mainstream culture.

The family's internal context:

The five dimensions of the family's external context impinge stress on a family's internal context. But unlike the external context it is made up of elements that the family can change and control. The internal context is made up of three dimensions: the structural, the psychological and the philosophical (The micro system of Bronfenbrenner, 1979).

The structural context refers to the form and function of the family's boundaries, role assignments and rules regarding who is within and who is outside those boundaries. The psychological context refers to the family's perception, appraisal, definition or assessment of stressful event.

The philosophical context refers to its values and beliefs at a micro level. Family stress means change in the equilibrium of the family system. Family stress may be a change in the regular pattern which the family enjoys or avoids Family stress does not necessarily lead to crisis. Family crisis is brought about by severe stress that the family cannot function. Then the family hits the bottom and may reach a turning point at which the recovery process begins. This time the family can end up even stronger than before the crisis situation.

THEORY OF GENERAL ADAPTATION SYNDROME

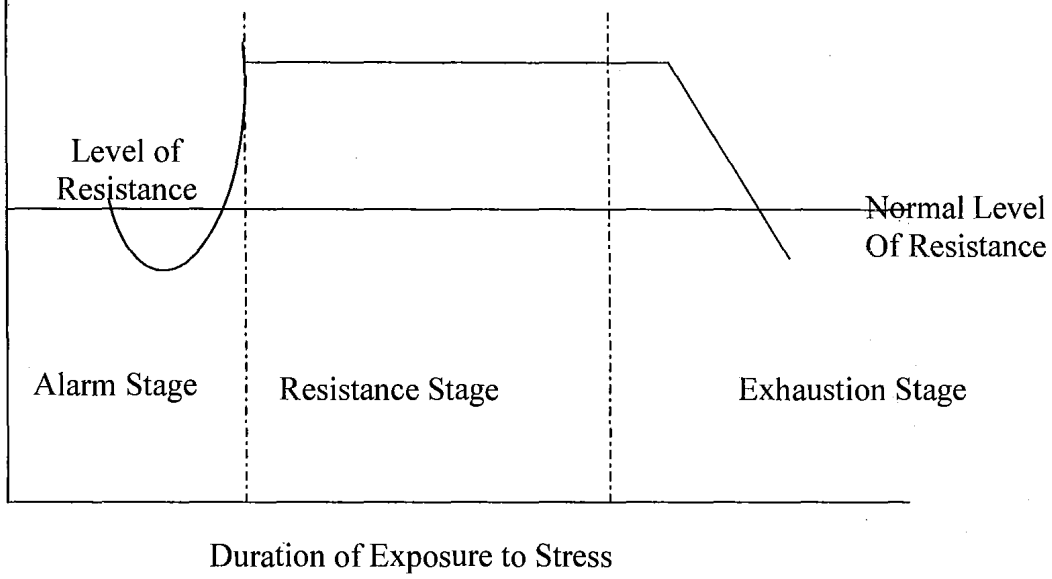
Hans Selye (1956) explained stress phenomenon in a comprehensive model. This three-stage model states that when an organism is confronted with a threat, the general physiological response occurs in three stages.

Alarm reaction: The first phase includes an initial shock phase in which resistance is lowered and a `counter – shock phase' in which defensive mechanisms become active. Alarm reaction is characterized by autonomous excitability, adrenalin discharge, increased heart rate, muscle tone, blood content and gastro intestinal ulceration. The periods of resistance vary depending on the nature and intensity of the threat and condition of the organism.

Stage of resistance: Maximum adaptation occurs during this stage. The bodily signs characteristic of the alarm reaction disappear. Resistance increases to levels of above normal. If the stressor persists, or the defensive reaction proves ineffective, the organism deteriorates to the next stage.

Stage of exhaustion: Adaptation energy is exhausted. Sings of the alarm reaction reappear and the resistance level begins to decline irreversibly. The organism collapses. Thus the third stage is characterized by a loss of resistance to the stressor, exhaustion, collapse and even death can occur.

Figure 2.3 .General Adaptation Syndrome



WORK ENVIRONMENT MODEL (Bounce Model)

Pestonjee (1992) has attempted to present the nature and consequences of stress phenomenon. He has identified three important sectors of life in which stress originates. These are a) jobs and the organization, b) the social sector and c) intra – psychic sector. The first refers to the totality of the work environment (task, responsibility, power and accountability, working hours, atmosphere, colleagues, compensations and policies etc.). The social sector refers to the social / cultural context of one's life. It may include religion, caste, language, dress and other such factors. The intra psychic sector encompasses those things, which are intimate and personal like temperament, attitudes, values, abilities, beliefs, aspirations, desires and health. It is contended that stresses can originate in any of these three sectors or in combinations there of.

Honeymoon stage:

This stage can be described as accounting for the euphoric feeling of encounter with the new job such as excitement, enthusiasm, challenge and pride. Dysfunctional features emerge in two ways. First, the energy reserves are gradually depleted in coping with the demands of a challenging environment. Second, habits and strategies for coping with stress are formed in this stage, which is often not useful in coping with later challenge. . In the figure 2.4, it can be seen that the magnitude of stress emanating from the three sectors of life are in consonance with the stress tolerance limit of the individual to handle these stresses. This indicates a balanced state.

Figure 2.4 Organisation- Individual Normal Interaction Pattern

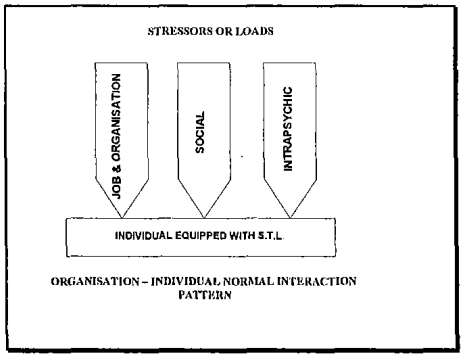
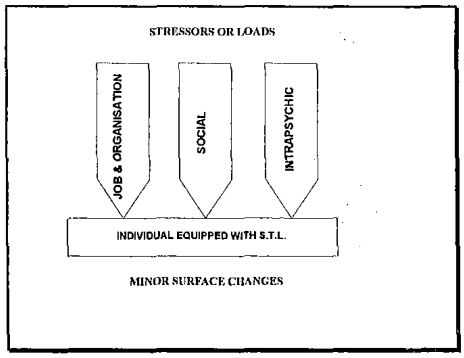


Figure 2.5 Minor Surface Changes



Fuel shortage stage:

This stage can be identified as composed of the value feeling of loss, fatigue and confusion arising from the individual's overdraw on reserves of adaptation energy. Other symptoms are dissatisfaction, inefficiency, and fatigue and sleep disturbances leading to escape activities such as eating, drinking and smoking.

In the figure (2.5), we find that job and organization loads have increased and have made a dent in the personality. In this stage, we find minor surface changes taking place which are quite manageable.

Chronic symptoms stage:

Fuel shortage stage is followed by physiological symptoms which become more pronounced and demand attention and help at this stage. Common symptoms are chronic exhaustion, physical health, anger and depression. A sense of fatigue and exhaustion overtakes the individual.

Figure 2.6 Major Surface Disfiguration

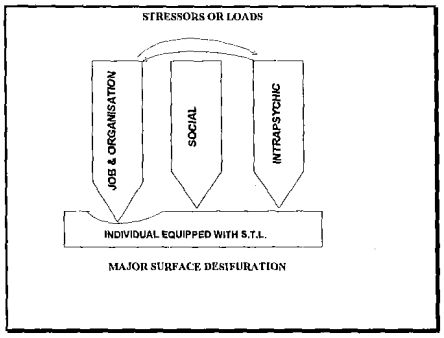
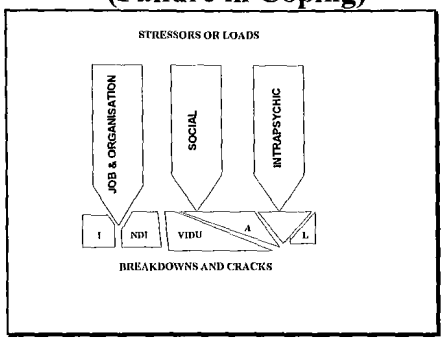


Figure 2.7 Breakdowns and Cracks (Failure in Coping)



In the figure (2.6), we find that job and organizational loads have become unmanageable and interact with intra psychic loads. This is the stage at which the negative consequences of stress become apparent. Most of the stress related diseases emerge at this point.

Crisis stage:

When these feelings and physiological symptoms persist over a period of time, the individual enters the stage of crisis. At this stage, he develops escape mentality and feels oppressed. Heightened pessimism, self-doubting tendency, peptic ulcers, tension headaches, chronic backaches; high blood pressure and difficulty in sleeping are other characteristics of this stage.

In the figure (2.7), we start operating beyond the stress tolerance limit. Several types of breakdowns and cracks are observable. If unchecked, the situation may culminate into the last and most intense phase(Figure 2.8) where in complete disintegration of personality takes place. At this stage, the individual requires proper psychological and medical care (Pestonjee, 1983).

Figure 2.8 Disintegration or Falling Apart

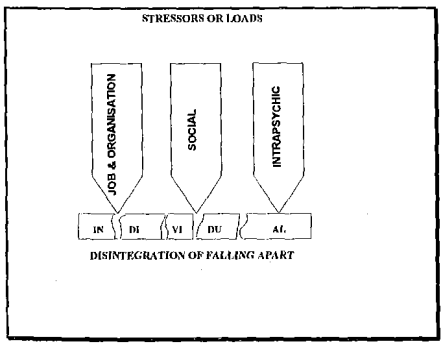
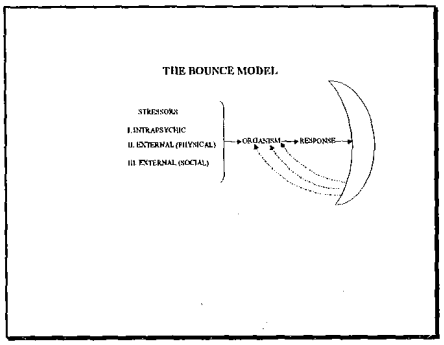


Figure 2.9 The Bounce Model



Hitting the wall stage:

This stage of BOSS (Burnout stress syndrome) is characterized by total exhaustion of one's adaptation energy, which may mark the end of one's professional career. While recovery from this stage may elude some, others may be resourceful enough to tide over the crisis. It leads to depletion of energy reserves, lowered resistance to illness, increased dissatisfaction and pessimism and increased absenteeism and inefficiency at work.

It is called the bounce model because the behavioural decompensation taking place due to stress.(Figure 2.9) tends to get reflected in interpersonal and other reactions. The reactions are received and analysed by the environment, which in turn bounces back signals to the individual to bring about a change either at the organismic level or at the response level.

Contrary to BOSS, Rust out stress syndrome (ROSS) is another phenomenon, which is indicative of the stress under load. It occurs when there is a gap between what the executive is capable of doing and what he is required to do.

WORK ENVIRONMENT MODEL

Parkes (1996) proposed work environmental model, which is different form the model proposed by Pestonjee. As a concept of interaction, he proposed three different models.

Additive Effects Model: It explains the nature of additive and interactive relationships between an independent variable (e.g. Personality) and a job stressor dimension. It represents an additive combination in which the personality and stressor variables independently predict adverse health outcome, each making a separate and unique contribution to the explained variance. Here the magnitude and effect of personality on health depends on environmental characteristics.

Vulnerability model of interaction: In this model, the relationship is such that adverse outcomes occur only when high levels of maladaptive trait are combined with high levels of environmental stressor neither personality nor stressor alone gives rise to impaired well being. Conversely, the form of this model can be viewed as one in which an adaptive personality trait acts to buffer the positive relation between stressor and health impairment.

Person environment fit model: It gives a perfect match between personality and environment. Thus, the two instances of person – environment congruence are associated with more favourable outcomes than those, which represent incongruence. More complex

patterns of interaction may be observed. Interactive effects may also occur in conjunction with other forms of relationship (e.g. mediating effects) in models developed to represent multiple causal path ways (e.g. Edwards, Naglioni, Cooper, 1990; Evans, Shapiro, & Lewis, 1993).

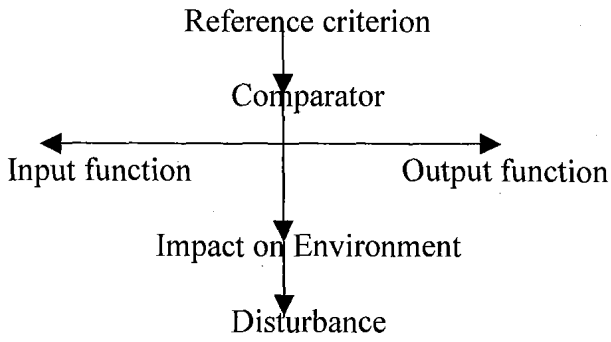
Thus in both research and application, it is important to know whether all individuals exposed to particular environmental stressors will be affected to the same extent, or whether some of those exposed will be more adversely affected than others.

CYBERNATIC THEORY OF STRESS

Cybernetics or control theory is becoming widely accepted as a general theoretical framework for understanding human behaviour. However, the principles, most notably the negative feedback loop, are rarely examined in empirical organizational stress research.

The operation of the negative feed back loop is as follows: The input function senses the environmental stimuli and transmits this signal to the comparator, which evaluates the sensed environment against a relevant reference criterion. The effects of the comparator on the output function represent the motivational properties of discrepancies between current status and desired end states (goals). If this comparison indicates a discrepancy between the sensed environment and the reference criterion, the output function attempts to alter the environment to reduce or eliminate the discrepancy. The bounce model also attempts to explain stress reactions on similar lines. In the bounce model the behavioural decompensation takes place due to stress. The discrepancy between the sensed environment and reference criterion tends to get reflected in interpersonal and other reactions. The reactions are received and analysed by the negative feedback loop, which, in turn, bounces back signals to the individual to bring about a change either at the organismic level or at the response level. Likewise, the effects of the output function on the environment represent attempts to change the organization and hence resolve perceived discrepancies.

Figure 2.10 Cybernatic Model of Stress



The different principles of cybernetics are evident in numerous organizational role stress theories. Of these, four are widely cited, which include Role stress theory (Kahn, Wolf, Quinn, Snock, & Rosenthal, 1964); Facet Model (Beehr and New man, 1978); Stress Cycle Model (Mc Grath) and Person – Environment Fit Theory (French, Caplan, & Harrison, 1982).

This theory defines stress as a discrepancy between an employee's perceived state and desired state, provided that the presence of this discrepancy is considered important by the employee. Stress damages psychological and physical well-being and activates coping attempts to reduce the negative impact of stress by altering the perceptions, desires and importance constituting the stressful discrepancy and by improving well– being directly.

The stress and coping process is viewed as dynamic system of interrelated negative feed back loops, in which multiple discrepancies between perceptions and desires damage well-being and activate coping and changes in the magnitude of one discrepancy influence the magnitude and or the importance of others (Edwards, 1992).

2.4 APPROACHES TO STUDY STRESS

Asthana (1983) opined that various psychologists of different persuasions have given various approaches like a) stimulus – oriented approach b) response oriented approach and c) psycho dynamic approach.

Stimulus – oriented approach:

Stress is regarded as an external force, which is perceived as threatening. Some scientists like Khan et al. (1964); Kaplan et al. (1975) view threat itself as stress. According

to Selye, any external event or any internal drive, which threatens to upset the organismic equilibrium, is known as stress.

Response oriented interpretations:

The response oriented approaches by Selye (1974) & Everly (1989) describe how stress is reacted to and how people function under stress. The way it is presumably experienced is inferred from the response made to it. The biologically oriented approach to stress is also response oriented, it views the reactions of the organism as attempts to come to terms with the environment.

Psychodynamic approach:

This approach considers events external or internal which pose a threat to the integrity of the organism leading to the disorganization of personality as stress. Stress may be induced by interpersonal or intra psychic factors resulting in anxiety.

The socially oriented psychologists believe that the intra psychic needs call into play mechanisms of perceptual selection, defense and vigilance. There are wide variations in reactions to stress and the capacity to tolerate it between persons and in the same individual on different occasions. The feeling of stress is an act in which there is a reference, not a causal relation, to an object that is intended or intentionally presents. The psychologists like Lazarus (1966), House (1981), French et al. (1982) represented various patterns of relationships which underlie work stress processes. Such models have highlighted the importance of both person and job characteristics, and the nature of the interplay between these factors, particularly the degree of person – environment fit.

While the theories of research inculcate certain analysis and deep thinking, the review of literature in the field of role stress provides a tool for conceptualizing the interrelational analysis.

2.5 ROLE STRESS AND DEMOGRAPHIC VARIABLES

Gender and Role Stress

Several research studies indicated that female subjects experienced more role stress compared to males in performing multifarious roles (Kumar and Prakash, 1986; Uma, 1988;Tyagi & Sen, 2000). On the other hand, in some of the studies males experienced more stress in occupations (Sultan, Akhtar and Vadra, 1989). Men had greater stress in social

relationships where as women had stress in the areas of health and economic aspects (Reddy & Rama Murthy, 1992).

However in few studies there was no significant sex difference obtained (Sen, 1981; Shejwal and Ram, 1983; Pandya, 1999). Studies observed that men are generally found to be independent, instrumental, aggressive, active ambitious and logical and women be weak, dependent, passive, gentle, tactful and expressive (Williams & Best, 1982; Carol Gilligan, 1985).

Working women and Role stress

Research studies highlight that the working women felt that their occupational roles interfered with their family role performance, particularly in the mother role followed by social and wife roles (Kapur, 1969: Bhagat, 1983; Gupta & Murthy, 1984; Vadra & Akhtar, 1989; Akhtar & Vadra, 1990). Working women suffer from role conflicts and experience high level of anxiety which affect their marital compatibility (Gupta, 1982; Gupta and Murthy, 1984; Srivastava & Srivastava, 1985; Guaba, 1985; Sinha, 1987; Sobhavarthamma, 1991; Narang, 1996; Devi, 2000). Employed women who held more traditional social values and whose primary motivation is to earn money perceived a higher degree of role conflict (Kapur, 1969). Professional working women experienced greater work related stress than non-professional women (Tharakan, 1992). Dual career couples experience more stress as compared to traditional couples in terms of role conflicts, role ambiguity, marital adjustment and social relations. Working women reported more hassles, less support, more psycho-social adjustment problems and a higher level of mental health hazards(Jain, Neeta, Gunthey & Ravi,2001).

The stressors of working women were conflicts between work and home, travel to work and home, travel to work place, lack of opportunity and challenge and child care problems. The major strains experienced were anxiety followed by tension, fatigue, lack of concentration, irritation, physical health problems (Kumar & Murthy, 1998). A maximum number of women take up employment for the economic reasons and the women at higher posts are career oriented than C and D grade women (Khwaja,R.C. & Chandra, 1999).

Women with pre school children and Role Stress

Several gender studies in Indian context suggest that the women experience certain stressors to a greater degree and with different effects during childbearing age. Women with preschool children experienced higher role conflict and higher role strain (Cooper & Davidson, 1982; Gupta and Murthy, 1984; Guaba, 1985; Rosalind & Grace, 1985; Wortman et al., 1991; Radhika, 1999). Few studies indicated that the number of children that the

couple possesses had no significant relation with the role stress (Srivastava and Srivastava, 1985).

Areas of Role Stress

The stress for women may be aroused in carrying out multifarious roles. The women may have stress in different roles of household roles, occupational roles and marital roles (Shenoy, 1987). A sample of rural women were studied in role stress dimensions in a study. The subjects having higher psychological distress on GHQ (General health Questionnaire) were named case group were retorted to have greater number of stress symptoms. The role stress was studied in different areas constituting occupational, marital, familial, bereavement, health, financial, social and miscellaneous. The findings indicated that the case group reported a significantly greater number of unexpected events, which were rated as negative. The significant stressors were in the areas of marital and familial stress (Verma, 1989).

Age and Role Stress

Research studies across several decades of 20th Century carried out in India indicated that the age and the role stress are negatively correlated (Holmes and Masuda, 1974; Sen, 1981; Gupta and Murthy, 1984; Khanna, 1985;Kumari & Prakash, 1986; Srilatha, 1988; Dwivedi, 1989; Jamuna & Usha Sree, 1990; Chaudhary, 1990; Pandey, 1997; Srivastav, 1997). The younger group experienced more physical stress than their seniors where as elder group exhibited more psychological stress due to the responsibilities and pressure (Khwaja & Chandra, 1999). However some of the studies have demonstrated that the age factor failed to relate the role stress dimensions and the overall roles stress (Surti, 1982; Apte, 1984; Ahmed et al., 1985; Bhatnagar and Bose, 1985; Srivastava and Srivastava, 1985; Jasmine, 1987; Gupta, 1989; Pandey, 1997; Sharma et al., 2001). Few studies indicated that age showed a positive relationship with the role stress dimensions (Bhandarker and Singh, 1986; Srivastava, A.K, 1993; Fernandes and Murthy, 1989; Thomas et al., 2000).

Education and Role stress

Earlier studies investigated that the amount of formal education was negatively related to the role stress dimensions (Dwivedi, 1989). Majority of the females suffering from Hystreia had no education (Shirali and Bharti, 1986). The studies by Bhaskar(1986), Shirali and and Dwivedi(1989), Dwivedi (1989), Bharti(1986) and Sadangi, Mishra & Patel (1996) indicated the negative and significant relationship between education and the role stress.

On the other hand, several studies witnessed that there was no significant relationship between education and the role stress dimensions (Surti, 1982; Ahmad, Bhardwaj, & Narula,

1985; Gupta, 1989; Pandey, 1997). Studies pointed out that psychological stress increased with the education and official hierarchy in working women (Khwaja & Chandra, 1999).

Income and Role Stress

Analyses conducted in the past decades in India repeatedly confirmed that the income was the crucial factor in deciding the role stress component of women (Sen, 1981; Sri Vastava and Sri Vastava 1985; Shrali and Bharti, 1986; Jasmine, 1987; Dwivedi, 1989). However in few studies, income was found to be unrelated with the role stress among executives (Ahmad et al., 1985; Apte, 1984).

Caste and Role Stress:

Studies emphasized that increased caste status reduced the time spent in agriculture and the stress (Sadangi, Mishra & Patel, 1996).

Socio – Economic status and Role Stress

Several studies conducted during the last three decades indicated that several social factors like marital tensions, economic crisis and strained relationship were directly associated with the incidence of hypertension (Sharma and Dubey, 1977; Bharti, 1986). Socio – economic status is in significance with the amount of time spent in Agricultural activities (Borah, 1998). A higher incidence of heart diseases was observed in urbanized areas than in rural areas due to the socio- economic reasons (Dubey & Sharma, 1977). Socio-economic constraints limit the work productivity and the role in employment and income generating activities resulting in role stress (Sabri, 1998).

Marital status and Role stress

Empirical findings based on marital status revealed some interesting points. Married entrepreneurs experienced more role stress compared to non-married and unmarried executives (Surti and Sarupriya, 1981; Gupta, 1989). Executives married to working women were observed to experience significantly high total role stress in comparison to executives married to house wives (Kumar, 1989). Working married women were significantly higher on stress dimensions (Cooper & Davidson, 1982; Khanna, 1986; Fernandes and Murthy, 1989). Life events such as marriage and change of work situations produced negative life stress for females (Shriali and Bharti, 1986; Akhtar and Vadra, 1990; Thomas & Vindhya, 2000). However some of the studies indicated that the marital status was found to be non significant with the role stress among executives (Ahmed et al., 1985; Shejwal and Ram, 1983; Shenoy, 1987).

Few studies found that unmarried executives experienced more stress (Sen, 1981; Kumar, 1989). Supportive marriage would provide more stability and increased commitment to both job as well as the family (Sahgal, 1999). Separated and widowed subjects experienced significantly more undesirable and total life events than the married and unmarried subjects (Thomas & Vindhya, 2000).

Family Type and Role Stress

The traditional joint families had almost disappeared from the urban setting and the employed women felt stress and strain due to the dual role performance (Ramanamma, 1979, Gupta, 1989). Studies traced out that nuclear family entrepreneurs experienced more role stress compared to joint family entrepreneurs (Surti & Sarupriya, 1981; Srivastava & Srivastava, 1985). Women working for economic motives, living in joint families, having low work commitment and low need for achievement but were non traditional in their attitudes towards women's role were more likely to experience role conflict than others (Gupta & Murthy, 1984).

Family size and Role Stress

Studies asserted that family size was positively related to the role stress (Sen, 1981; Bhandarker and Singh, 1986).

Age & Number of Children

Studies explored that the stress increases with the age and number of children (Guelzow et al.,1991).

Experience and Role Stress

The research supports the existence of relationship between experience and role stress. Linear increase in the role stress was observed in the role stress as a function of service length among BHEL executives (Gupta and Pratap, 1987). Experience showed a positive and significant relationship with the dimensions of role stress (Pandey, 1997).

Experience showed a negative correlation with the role conflict of working women and positive among non-working women (Gupta and Murthy, 1984; Palnitkar, 1987; Dwivedi, 1989). In some of the studies, experience was found to be unrelated to the role stress among executives (Surti, 1982; Ahmad et al., 1985).

2.6 STUDIES ON PERSONALITY VARIABLES

Self Efficacy and Role Stress :

A series of studies indicated that the strong expectations of personal mastery or self efficacy is related to positive coping with stress (Fleishman, 1984; Jimmieson, 2000), outcome studies of stress management programmes for working woman have demonstrated increased general self efficacy with reduced anxiety (Long & Haney, 1988). Self-efficacy is a precursor to instrumental coping (Bandura, 1977 & 1982). Self-efficacy may be partially promoted by the income (Downey and Moen, 1987). Organisational stress dimensions were significantly and negatively correlated with self-sufficiency and ego strength (Srilata, 1988). A strong negative relationship was found between self-efficacy and role stress dimensions (Kahn et al., 1964; Pandey, 1997). The perception of greater opportunities in the role might have decreased the role related stress (Sayeed, 1985a & 1985b; Pareek, 1987).

Self Esteem and Role Stress :

There is a significant positive correlation between self esteem and role overload (Mishra, Mehta and Bhardwaj, 1997). A set of research studies indicated that the role stress is high when the self-esteem is low (Geller, 1995; Singh, 1998; Sen, 1999, Thomas & Vindhya, 2000). Self-esteem was associated with the demographic variables like age, marital status, longer marital life and education (Thomas & Vindhya, 2000). Self-esteem had a more significant impact on depression, in working class subjects than those in middle class occupations (Thomas & Vindhya, 2000).

Locus of Control and Role Stress

Several research studies conducted in India reported that there is a significant impact of locus of control on the role stress (Sen, 1981; Rao, 1986; Nath; 1988; Gupta, 1989; Uma, 1992; Srivastava, 1998). Subjects with internal locus of control showed significantly higher occupational and role stress (Palnitkar, 1987), particularly on the dimension of resource inadequacy (Shejwal, 1984b; Gupta, 1989). Internality had positive significant correlation with inter role distance and role overload dimensions of role stress (Mathur, 1997). Internality had negative correlation with personal inadequacy (Mathur, 1997). The persons with internal locus of control can easily adapt to the stressful events to reduce their stress (Chandraiah, 1996). High internals manifest more health related activity and cope better with illness than externals (Pareek, 2000). Internals used higher degree of special support than externals (Caldwell, Pearson & Chin, 1987).

Externality is one of the important dimensions in relation to role stress (Joshi and Singhvi, 1997). The external group was found to have low role stress (Shejwal, 1984b; Bhandarkar & Singh, 1986). Externality by chance has positive correlation with role expectation conflict, self-role distance and role isolation (Mathur, 1997). Externality by chance has negative correlation with role overload (Mathur, 1997). However, Kaur and Murthy (1986) found that there were no significant differences with regard to locus of control and role stress dimensions. Pestonjee and Singh (1981) reflected in the similar way by reporting that there was no significant difference between the stress strain relationship for low and high scoring groups on locus of control.

Masculinity, Femininity and Role stress

A comprehensive work done by different researchers indicated that the masculine women reported significantly lower trait anxiety, vocational, psychological and physical strain and less work impairment compared with low masculine women (Long, 1989). A set of researchers reported that masculinity is related to instrumentality (Spence & Helmrich, 1981) and masculine females are engaged in problem focussed than the emotion focussed coping in response to stressful situations (Nezu & Ronan, 1985; Nezu and Nezu, 1987). Women in masculine sex typed occupations may perceive them as more self efficacious, use more coping strategies and experience less strain regardless of sex role orientation (Terborg, 1985; Long, 1989). Women in masculine sex typed professional and white collar jobs are likely to have more effective coping strategies, and to have fewer role conflicts as they are more likely to be single or childless and receive greater income and status (Terborg, 1985), where as the secretaries (traditional female occupation) had the second highest incidence of stress-related diseases (Colligan et al., 1977). The internal responses to stressful situations are mediated by a learned sex role orientation(Bem, 1981a).

Data also suggest those women with high scores on measures of masculinity report low anxiety, little depression, and few mental health symptoms (DeGregorio & Carver, 1980; Olds& Shaver, 1980). In few studies, high masculine women were found to have higher role conflicts (Gupta and Murthy, 1984). Gender role socialization may lead males and females to place different value on goals and activities (Eccles, 1987). Expectations regarding appropriate characteristics and behaviors are deeply ingrained in our farming society (Reble & Ruble, 1980). Thus, gender – role socialization may lead males and females to place different value on goals and activities (Eccles, 1987).

The masculine traits, which are more highly valued, suggest competence, rationality and assertion, whereas feminine traits form a cluster of behaviors that suggest warmth and expressiveness (Brovermen et. al; 1972). Further more, there is som e evidence that high feminine females (sex – typed individuals avoid and are uncomfortable performing cross –

sex tasks because cross – sex behavior is incongruent with their sex – role orientation (Bem, 1975). More over, when such individuals perform cross – sex activities, they report psychological discomfort and more negative feelings about themselves.

High levels of adjustment and low distress have a strong relationship to masculine sex role orientation, but almost no correlation with femininity (Feather, 1985; Nezu & Nezu, 1987; Taylor & Hall, 1982; Whitley, 1984). They explained that the differences in well-being and emotional distress as a function of masculinity but not femininity. Furthermore, feminine traits contribute to self perceived effectiveness and enjoyment of social interaction and satisfaction with one's interpersonal relationships (Orlofsky & Stake, 1981; Zeldow et al., 1985). Hysterics who had higher stress had low scores on feminity where as normal women were found to be more androgynous (Bharti, 1986). People with certain androgynous characteristics are not prone to stress (Deigo, 1980; Chandraiah et al., 1996; Pestongee, 1999).

Health and Role stress

Stress has also been linked with many types of physical illness or disorder. Disorders such as heart disease, gastro intestinal disorders (e.g. peptic ulcer and irritable bowel syndrome), respiratory disorders (e.g. allergies and bronchial asthma), muscular problems (e.g., Back pain and tension headache), skin problems (e.g. eczema and acne), and cancer are said to be associated with or caused by or accentuated by stress (Everly, 1989; Matteson & Ivancerich, 1987). Adaptive coping reduces stress and promotes long-term health. Researchers have argued that occupational stress, either as a result of its detrimental effect on the health of the individual directly, also leads to low productivity and high dissatisfaction (Cooper & Marshall, 1978; Matteson & Ivancevich, 1987). Highly stressed individuals suffer from psychological, psychosomatic and physical problems as a result of their occupational stress (Cooper& Marshall, 1978; Srivastava, 1991).

Research evidence showed a positive relationship between life events and subsequent illness (Holmes & Rahe, 1974). The patients who complained amenorrhoea found that psychic stress such as overwork, anxiety, and change in occupation, confinement were the prime factors responsible for such a disorder (Chaudhuri, 1977). Clinical observations and experimental evidence have indicated that stress produces increased adrenocortical secretions which results in the formation and severity of gastric ulcers (Gupta, Sundar, Jain, Dubey, & Udupa, 1977, Verma , Singh, Gupta, & Udupa, 1977; Ahmad and Rao, 1977; Srivastava, 1998). Stress was positively related with bronchial asthma (Jha, Udupa, & Kumar, 1977). Anxiety neurosis was found to be high in persons with high stress (Rai, 1977; Singh, 1977). Stress caused diseases includes thyrotoxicosis, hypertension, peptic ulcer, ulcerative colitis, bronchial asthma, rheumatoid arthritis and coronary heart diseases (Wolf, 1968; Kumar,

Chandel, Singh, & Pant, 1977). The glands like Pituitary gland, Pineal gland, Adrenal gland, and Thyroid gland are affected by stress (Subrahmanyan, 1977; Devi, Subramaniam, & Shrinivasan, 1977; Chattopadhyaya, Prasad, Uniyal, & Nanda, 1977; Rao, Chansouria, Srinivasan, & Udupa, 1977).

There exists a positive relationship between stressful life events and subsequent illness (Schmalo and Engel, 1967; Holmes and Rahe, 1967; Grant, 1974). Rao (1977) proposed that children who have earlier protein deficient diets attempt to adapt to nutritional stress by growth retardation. A significant negative relationship was observed between general health score and stress score (Kumari and Prakash, 1986). Healthy individuals can tolerate and fight back against the problems so that they do not cause any severe stress (Srivastava, 1998). Health was found to be the best predictor of stress (Srinivasan, 1986; Albuquerque, 1987; Agrawal and Kaur, 1989). Stress may be associated with many psychological factors, which in turn are manifested in symptoms such as shortness of breath, dizziness, nausea and headache (Bauer et al., 1992; Rothman & Weintraub, 1995; Ryan and Morrow, 1992; Black et al., 1993). Daughter's marriage and financial problems lead to anxiety and depression among the women with gynecological problems (Goyal, 1997). The moderate job stress group was less prone to psychological depression, manifested less neurotic symptoms and had better mental health as compared to low or high stress groups (Sharma et al., 2001). Occupational health hazards and drudgery in farm women were reported by Grover, 1988; Borah, 1988; Mrunalini, 1989 and Sita & Kamalamma, 1999.

Family Environment

There is ample evidence that the relationship exists between family environment and stress (Mc Cubbin, 1979; Boss, 1987). Several studies have been reported that expression in the families reduce the stress parameters (Caplan, 1964; Kaplan et al, 1973; Mc Cubbin et al, 1976; Mc Cubbin & Figley, 1983; Gilbert, 1989). Considerable evidence demonstrates that the acceptance and caring of the family has a negative impact on the stress(Caplan, 1964; Kaplan et al., 1973; Mc Cubbin & Figley, 1983; Gilbert, 1989). Family cohesion may help the individual to combat the stressful situation (Mc Cubbin & Figley, 1983).

Conflicts arise because of opposite forces acting in the situation or because of two different goals evoking incompatible response tendencies may give rise to stress (Srivastava, 1998). The relationship between conflict and stress was found to be positive and statistically significant which is indicative of the fact that the presence of conflict in marriage is accompanied by stress in both males and females (Apte, 1984;Srivastava and Srivastava, 1985).

2.7 STUDIES ON COPING PROCESS VARIABLES

Coping and Role Stress:

Lazarus (1974) found that the word coping has two connotations in literature. The term has been used to denote the way of dealing with stress, or the effort to master conditions of harm, threat or challenge when a routine or automatic response is not readily available.

Mc grath (1976) believed that an array of Covert and overt behaviour patterns, which can help prevent, alleviate or respond to stressful experiences, is known as Coping.

According to Lazarus and Launlier (1978), Coping is the efforts, both action oriented and intra-psychic to manage (to master, tolerate, reduce and minimize) environmental and internal demands and conflicts among them which exceeds a person's resources.

Dewe, Guest and Williams (1979) defined Coping as an individual's attempted response to reduce the feeling of discomfort.

Folkman and Lazarus (1980) defined Coping as the cognitive and behavioural efforts made to master, tolerate or reduce external and internal demands and conflict among them.

Coping is dependent on the individual's perception of the environment. It is the process of gathering information, generating alternatives, weighing and then selecting alternatives, implementing or evolving strategies. Coping thus requires an analysis of one's own needs as well as of the situation.

Coping as an Internal Response:

Many theorists have considered characteristics of people who seem to cope effectively with a range of difficult situations in an effort to identify personality traits linked with successful coping. One such trait is a 'sense of coherence', proposed by Antonovsky (1987).

There are three themes in the sense of coherence. Comprehensibility, manageability and meaningfulness. People high on comprehensibility believe their life and the experiences in it are ordered, structured and predictable as opposed to random and confusing. The theme of manageability means that people believe they have resources at their disposal that are adequate to meet the demands placed up on them. Meaningfulness speaks to the way in which people believe life and their experiences make sense to them, and also that many of life's problems and challenges are worth their investment of time and energy. The concept would suggest that a person with a strong sense of coherence would accomplish this transition more effectively than a person with a weak sense of coherence.

Coping as Environment Resources:

Coping with stressors and difficulties can be eased by having resources available in the environment. One such resource is the availability of social support (Cobb, 1976). The role of the social support plays in assisting individuals to deal with stressor has been termed the buffering effect. Social support buffers the individual against the potential negative effects of stressors (Cohen and wills, 1985).

Coping as an interaction:

Coping is a complex compilation of things that people use to deal with stress. The coping process is termed transactional (Lazarus and Folkman, 1984).

Types of Coping:

Coping as any response to external life strains that serves to prevent, avoid or control emotional distress. External events experienced by the person can stimulate the coping efforts as well as the person's inner environment, the thoughts and feelings the person is experiencing in relation to the event and the coping response.

Lazarus (1975) suggested two categories of coping, viz., direct action and palliative modes. The first category includes the behaviour or actions, which are performed by the organism when it is in the face of a stressful situation. Palliative modes of coping refer to

those thoughts or actions, which purport to relieve the organism of any emotional impact of stress.

Pareek (1977& 1997) proposed two types of coping strategies, which people use to deal with stress. One category consists of persons who decide to suffer from, accept or deny the experienced stress, or put the blame on somebody (self or others) or something for being in that stressful situation. These are passive or avoidance strategies and are termed as 'dysfunctional styles'of coping with stress situations. The other category consists of persons facing the realities of stress consciously, and taking some action to solve the problems themselves or with the help of other people. These are active approaches and are termed as 'functional styles' of dealing with stressful situations. These are supposed to be more effective and healthy when compared to the 'dysfunctional styles'.

In general, dysfunctional modes of coping may be damaging when they prevent essential direct action, but may be extremely useful in helping a person maintain a sense of well being, integration, or hope under conditions otherwise likely to encourage psychological disintegration.

Folkman, Lazarus, Dunkel, Schetter, Delongis, & Gruen, (1986) have proposed eight coping strategies based on factor analysis of an instrument. They are confrontive coping, distancing, and self-control; seeking social support, accepting responsibility, escape avoidance, planful problem solving and positive reappraisal.

Pareek(1993) proposed eight types of coping strategies and styles (four dystunctional and four functional). These can be scored from responses to an instrument, called Role Pics.

1. Impunitive (M) has a combination of low internality, low externality and avoidance.
2. Intropunitive (I) is characterized by high internality low externality and avoidance. Blame and aggression is directed by the respondent against himself.
3. Extrapunitive(E) is characterized by high internality, low eternality and avoidance.
4. Defensive (D) is characterized by high internality, high externality and avoidance. With the involvement of both the self and others, but by using the avoidance mode, the respondent avoids aggression or blame with the help of defensive mechanisms.
5. Impersistive(M) is characterized by low internality, low externality and approach. Patience and conformity are its characters.
6. Intropersistive(i) is characterized by high internality, low externality and approach.
7. Extrapersistive(e) is characterized by low internality, high externality and approach. Statements of request made to someone for solving the problem or indicating expectations that the solution will come from the other people are marked.
8. Interpersistive(n) is characterized by high internality, high externality and approach.

Wilder & Plutchik (1982) have suggested a preventive strategy for burnout through NAC (Need Assessment and Coping Assesment) training method. The following steps are suggested.

1. Sensitize the individuals to their own needs (personality needs viz., recognition. stimulation, family and social life, achievement, competence, autonomy, advancement and collegiality; Job related needs viz., ambience and working conditions, variety and change, security, workload, emotional demands, participation in decisions, time pressures and deadlines, and interpersonal relations.
2. Help the individuals to asses the need fulfilling characteristics of a potential job.
3. Increase the probability of an appropriate match between and individual and a job.
4. Focus individuals' attention on the areas they should work on to provide maximum satisfaction on the job.

Plutchik (1982) has proposed eight basic coping styles to reduce stress. They are, suppression (avoid the stressor), help seeking, replacement (engage in direct stress-reducing activities), blame (others and system), substitution (engage in direct stress reducing activities), mapping (collect more information), reversal (act opposite to the way one feels), and minimization (minimize the importance of stressful situation).

The effective management of stress involves channelizing stress towards productive purposes, preparing role occupants to understand the nature of stress, helping them to understand their strength and usual styles and equipping them to develop approach strategies for coping with stress. An approach or functional strategy of dealing with the stress is to attempt role integration. The individual may analyze the various aspects of the roles which cause self role distance, and may begin to acquire skills which help him to bridge this gap, or carry his own self into the role by defining some aspects of the role according to his own strength.

The word coping has been used mainly with two meanings. Ways of dealing with stress and the effort to master conditions of harm, threat or challenge. Generally, effective coping strategies are 'approach strategies', which confront the problem of stress as a challenge and increase the capacity of dealing within. Ineffective coping strategies are 'escape' or 'avoidance strategies' which reduce the feeling of stress by denying the reality of stress, or through the use of alcohol, drugs or other aids to escapism. Approach or effective strategies of coping include efforts to increase physical and mental preparedness for coping (through physical exercises, yoga, meditation and diet management), creative diversions for emotional enrichment (music, art, theatre etc.) and strategies of dealing with the basic problems.

Approaches to study Coping styles or strategies:

Coping process is multi faceted. The difficulties posed by the environment and the coping strategies used by the individual evolve in meaningful ways during a stressful encounter.

Different approaches to study the coping have been pursued by various investigators, On the one hand some researches (e.g., Byrne, 1964; Goldstein, 1973) have emphasized general coping traits, styles or dispositions, while on the other hand, some investigators (e.g., Cohen and Lazarus, 1973; Katz, Weiner, Gallagher and Hellman, 1970; Wolf and Goodell, 1968) have preferred to study the active ongoing strategies in a particular stress situation.

Coping and Role stress:

Recent research has focused on coping as a determinant of the stress experience. Coping in a broader sense, encompasses at least two distinct concepts- coping resources and coping strategies. Resources refer to personal material and social assets that people have in varying quantities while strategies refer to habitual, behavioural and cognitive style in approaching a problem. Mullen and Suls (1992) found the avoidance strategies to be effective when outcome measures were immediate or short term, where as approach strategies were more effective where outcome measures were long term.

According to Pearlin and Schooler (1978), a coping response would be effective if it reduced the relationship between stressors and strains. They concluded that no single coping response was strikingly protective across life and work areas but that having a larger and more varied coping repertoire was effective in reducing stressor strain relationships. The absence of coping strategy may lead to ineffectiveness (Hall, 1972). Coping is also related to the quality and intensity of emotional reactions (Lazarus, 1974). Coping styles or strategies can either be seen as general trait or a disposition applicable to most situations, or as a disposition applicable to specific stress situations. The macho model in which aggressive coping by individual is emphasized, may lead to serious health problems (Friedman and Rosenman, 1974).

McCubbin and Patterson (1982) introduced the concept of stress pile up. This concept refers to experiencing simultaneous multiple stressor events and having new stressors occur before old ones are eliminated. They studied the event of father missing because of the Vietnam War and found that non-normative stressors such as hardships inherent in separation stress from the normal development of family members over time, and trial and error efforts to manage stressful situations accumulated over time. This pile up increase the difficulty of

the stress families had to handle. Mc Cubbin (1979) introduced the concept of coping strategies; it is now a central part concept in the family stress literature.

The family coping resources are its individual and collective strengths at the time the stressor event occurs. Examples are economic security, health, intelligence, job skills, proximity, and spirit of cooperation, relationship skills, network and social supports. The family's resources therefore are the sociological, economic, psychological, emotional and physical assets on which the members can draw in response to a single stressor event or an accumulation of events.

Studies have revealed that instrumental or problem focused coping, as compared to emotion focused coping serves as an important buffer for the negative emotional consequences of stress (Billings & Moos, 1981; Nezu & Ronan, 1985). Coping behaviour was identified as a function of sex role orientation (Long, 1989). Preventive coping appears to be a function of both high masculine and high feminine sex role orientation (Long, 1989). Men technocrats used a defensive style more often and females largely used the approach style of coping (Ahmad, 1991). Recent views tend to formulate the cause – effect relationships between stress, coping and efficacy variables as circular (Lazarus and Folkman, 1984).Prblem focused coping and emotional discharge increases with the age (Rani, Lakshmi, & Mishra,2001).

Studies indicated that most of the people use both emotion-focused and problem focused coping to deal with the stressors of daily life (Folkman and Lazarus, 1980; Lazarus and Folkman, 1984). Individuals at higher level of stress abandon problem-solving coping and turn to emotion focused coping strategies (Anderson, 1976). Some of the studies emphasized that the coping through physical fitness and aerobic exercises were found to have significant impact in controlling the stress (Holmes and Mcgilley, 1987). Some of the studies reported that cognitive coping was directly associated and avoidance coping was indirectly associated with the health (Robert et al., 1990). Cognitive coping and the social support were the strategies that were followed by different executives (Ghosh, 2000).

A series of studies reported that there are large individual differences in the way people react to daily hassles (Delongis et al., 1988). Studies reported that there is a positive association between stress, coping and health status (Kenneth, 1989; Moos & Moos, 1999). Personal coping strategies like eating, drinking, smoking, excessive sleeping, exercise, seeking social support were reported as coping strategies in some of the studies (Annapurna, 1998, Kumar & Murthy, 1998). Studies have examined that many coping strategies were adopted by the individuals like yoga, sex, maintenance of better family relationships, recognition of problems, improving the self image, acquiring alternative interests, acquiring

higher qualifications and using better communications etc. (Batlivala, 1990; Srivastava, 1998).

Professional women adopted the defensive style to cope with stress and the dysfunctional or avoidance styles were used twice as often to cope with stress than functional or approach oriented styles by the executives (Gupta and Pratap, 1987; Pestonjee, 1992). Role stress was positively correlated to all dimensions of approach styles and negatively correlated to avoidance styles of coping (Uma, 1992). Avoidance strategies were more used by junior level managers and approach strategies were predominant at senior level (Sen, 1981; Kaur & Murthy, 1986).

Studies suggested that effective approach strategies reduce the role stress (Sen, 1981; Rajagopalan and Khandelwal, 1988; Gupta, 1989; Srivastav, 1997). Avoidance strategies are significantly positively related to the role stress (Sen, 1981; Verma, 1989; Uma, 1992; Srivastav, 1997; Sehgal, 1997). Studies of various coping strategies or styles used in role stress reveal that approach styles have a strong relationship with internality, optimism, role efficacy, job satisfaction, and effective role behaviour in organizations (Westman, 1990; Sahu, 1993; Narang, 1996; Pareek, 1997; Moos&Moos, 1999; Pandey& Srivatava, 2000).

Earlier studies have noticed that no significant result was observed between the interaction of role stress and organizational climate on avoidance and approach coping behaviours (Singh and Singh, 1997). Significant differences were not found with regard to coping strategies and role stress (Kaur and Murthy, 1986). Intrapersistive style of coping was the dominant mode of coping with various role stresses experienced by the women entrepreneurs (Surti and Sarupriya, 1981). The executives at higher level experienced less stress, utilized better coping strategies and enjoyed more positive outcomes. The majority of the college students reported problem oriented coping behaviours (Srinivasan, 1986). Most frequently used adopted ways of coping were problem solving and acceptance (Albuquerque, 1987). Negative coping was the predictor of emotional or psychological stress and non-work stress (Dua, 1997).

Considerable evidence demonstrates that trusting relationship reduces the role stress (Mc Cubbin et al., 1976;Boss et al., 1979;Davis & Boss, 1980). Increased tolerance reduces the stress of the individual (McCubbin & Figley, 1985). Mutual support and access to the family's collective coping experience reduces the stress (Kaplan et. al, 1973). The individuals having good communication and information exchange can reduce their stress parameters (Kaplan et. al., 1973;Boss, 1979; Gilbert, 1989). Reframing the situation and defining in a positive way helps the people in reducing their stress parameters (Gilbert, 1989). Cognitive restructuring delegation of powers and social support were used by women more often than men (Schnittger & Bird, 1990; Guelzow et al., 1991). The coping strategy

should be cognitive centered (Caplan, 1964; Dharitri, 1996). It should be solution oriented (Caplan, 1964; Kaplan et al., 1973; Mc Cubbin & Figley, 1983). Families who cope effectively with stress and either avoid or quickly recover from traumatic experiences (Mc Cubbin & Figley, 1983).

Stress research reported that coping resources were found to be high in the areas of social support and rational cognitive coping in both the groups of physicians and executives (Ghosh et al., 2000). Karma yoga, Yoga nidra, and Raja yoga were the best approaches for stress management (Roy, 2000). Women effectively coped with the disasters like war, communal conflict, violence against women, poverty, homelessness, displacemect and the cultural loss(Lohokare et al., 2000).

Social Support and Role Stress

Social support is an important stress regulator and gender differences in seeking social interaction have been the subject of number of studies. Thoits (1982) has described social support as the degree to which the person's basic and social needs are gratified through interaction with others. Individuals with high levels of perceived support appear to be more resistant to adverse psychological consequences of exposure to stressors.

The support available to a person in times of stress is among the most important of resources. Research indicates that individuals who have a high level of social support are less likely to have stressful transactions with the environment, resulting in the experience of strain and ill health. A supportive person can help by making a more objective assessment of the situation as well as the actual coping process by providing assistance in handling the stressful situation (Srivastava, 1998).

House (1981) explained social support as an interpersonal transaction involving one or more of the following: 1. Emotional concern (liking, love and empathy) 2.instrumental aid (goods or services) 3. Information (about the environment) or appraisal (information relevant to self evaluation).

Cohen and Wills (1985) examined the differential effects of three types of social support. They are categorized below.

1. Emotional support: It consists of the components warmth and friendliness. It reflects the opportunity for expression of concern, confidence and trust. This kind of support is offered when people let others know that they love and care about them (Cohen and Wills, 1985; Jung, 1987).
2. Informational support: It is also been called as advice, appraisal, support and cognitive guidance. Informational support includes access to guidance, advice and

information. This kind of support helps in defining, understanding and coping with problematic events.

3. Instrumental support: It reflects access to practical services and material resources. It refers to actions or materials provided by others and enable the fulfillment of the ordinary role responsibilities.

Recent advances in research (Joe, 1994) on the dimensions and measurement of social support suggest that social support can be classified into four dimensions: a) Social embeddedness (the number of members in the social support network and their characteristics) b). Needed support (support required by an individual) c) Perceived support (perceived availability of support) and d) Actual support (support actually received in the past).Joe categorized social embedded ness as structural support and categorized needed, perceived and actual support as functional support.

There is a growing recognition that social support is a complex, multifaceted phenomenon. Vaux et al. (1986) suggested that social support is best seen as comprising the three components of 1. Social network resources (e.g., the size, structure and relationship characteristics of support networks); 2. Specific supportive acts (e.g., listening, confronting, advising, loaning money, socializing or assisting with tasks) and
3. Subjective appraisals of support.

Cohen and his colleagues (Cohen and Wills, 1985; Cohen and Syme, 1985) proposed a distinction between structural and functional support measures. Structural support refers measures describing the existence of intercorelation between social ties (e.g., marital status, number of relationships). Functional measures assess whether interpersonal relationships serve particular functions (e.g., provide affection, feeling of belonging or material aid). Parasuraman et al. (1992) described three major functions of social support are 1. Health sustaining function 2. Stress prevention function 3. Buffering function.

High social support, high positive coping and low negative coping were associated with high job stress, high non-work stress and poor health. Results showed that social support was the main predictor of physical health and job stress.The teachers who had higher level of support gave them reassurance of their worth reported less emotional exhaustion at work and indicated a greater sense of personal accomplishment (Russel, Altmaier, & Velzen, 1987). Social support moderates stress acting as a buffer against physical and psychological illness (Cohen and Wills, 1985; Cobb,1988; Baker,1989;Kumari & Sharma, 1990; Haines et al., 1991; Bauer et al.,1992; Singh et al., 1995; Nathawat and Rathore, 1996; Sargent & Terry, 2000; Nathawat, 2000). Support may be in terms of emotional, social, tangible, informational, esteem (Cohen and Wills, 1985) and emotional support (Weiss, 1974).

The relations between social-support, stress and strain have been the subjects of numerous studies. Most researchers in this area have shown that perceived support enhances physical health and mental health or adjustment there by reducing the stress (Cohen and Wills, 1985; Cowen, Pedro–Carroll, & Alpert–Gills, 1990; Hobfoll, Shoham, & Ritter, 1991; Kessler, Kendleu, Heath, Neale, & Eaves, 1992; Vetkovic and Koslow, 1994). Sehgal (1991) reported that a supportive marriage provides more stability and increased commitment to both job as well as the family. Women who perceived the attitude of significant others (particularly that of husband and parents- in- law) to be non supportive vis- a vis their role enactment experienced significantly greater role conflicts than women who perceived the attitude of others to be supportive (Gupta and Murthy, 1984).

Several studies proposed that supportive and trusting climate facilitates problem solving and buffer against the harmful effects of stress (Mc Cubbin, 1979; Boss, 1987; Watson and McKersie; Cobb, 1988). Family cohesion helps the individuals to cope effectively (Mc Cubbin & Figley, 1983). The people getting good acceptance and caring can withstand the stress easily (Caplan, 1964; Kaplan et al, 1973; Mc Cubbin & Figley, 1983; Gilbert, 1989). The group that had greater number of unexpected events in their life was reported to have fewer supportive interactions and sought less support from the society (Verma, 1989). Social support acts as a buffering agent in reducing the stress (Kumari and Sharma, 1990;Srivastava, 1991; Ryan and Morrow, 1992; Parasuraman, Greenhaus, & Granrose, 1992;). There is ample evidence suggesting that social support can reduce the level of stress in the working environment (Erera, 1992; Ganster et al., 1986; Lee& Ashforth, 1993 a&b; Lim, 1996; Manning et al., 1996) and in the family environment (Sahgal, 1991; Frone, Russell, & Cooper, 1992; Parasuraman et al., 1992; Park & Dimigen, 1994; Thomas and Ganster, 1995; Moos& Moos, 2000). The emotional support and social undermining acts as predictors of well-being (Singh et al, 1995). Bharti (1986) reported that social support was not related to the life stress in hysteric women.

The variance in rates of child abuse was associated with the degree to which mothers do not possess adequate support systems for parenting and are subjected to economic stress (Garbarino, 1976). Several stress management techniques were proposed at work place (Zastrow, 1984;Bhatia, 1999).

2.8 STUDIES ON ROLE STRESS DIMENSIONS

Role Conflicts:

Role overload and role ambiguity were the factors of stress among Supervisors (Jagdish, 1983). Role overload was the maximum stress factor in Railway & Aviation Officials (Dhadda, 1990).

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Role erosion and resource inadequacy and inter role distance were predominant role stresses experienced by the executives (Sehgal, 1990; Sehgal, 1997). Role erosion followed by resource inadequacy followed by role stagnation was found in executives (Gupta, 1988). Role erosion followed by resource inadequacy was dominant in Managers and System analysts (Pestonjee & Singh, 1987), Nurses and Bank employees than other groups of working women (Surti, 1982). Role erosion followed by role isolation was high in Computer professionals (Singh, 1987). Role erosion followed by inter role distance and role isolation were found to be the stress factors in the bank employees (Bhatnagar & Bose, 1985). Role erosion followed by inter role distance was found to be high in Doctors, where as females had high role overload (Uma, 1992). Role erosion was found to be high in employees (Khanna, 1985; Pandey, 1994). Role erosion was found to be the highest factor and role ambiguity was the lowest factor in bank officers (Chaudhary, 1990). Role erosion followed by role isolation and personal inadequacy was the maximum stress factors among public sector executives (Srivastava, 1993).

Self role distance was experienced mostly by bankers and least by teachers (Surti, 1982). Self-role distance followed by inters role distance and role expectation conflict was the different stress factors (Nath, 1988). Inter role distance was the highest factor (Fullan et al., 1987; Sen, 1981). Inter role distance followed by role erosion were the dominant factors in Managers(Pestonjee, 1987b). Inter role distance and role overload were experienced as dominant where as role ambiguity and role expectation conflict as remote contributors of role stress (Mathur, 1997). Role stagnation was experienced by the maximum number of executives (Gupta & Pratap, 1987), and in lower cadres (Sen, 1981). Role stagnation was highest among nurses followed by bank employees (Surti, 1982). Role stagnation followed by personal inadequacy and self-role distance were higher among lower level executives (Kumar, 1989). Role stagnation followed by role ambiguity and resource inadequacy was found in public organization employees (Sharma, 1987).

Role isolation was experienced more by bank employees, nurses, doctors and gazetted officers (Surti, 1982). Role isolation followed by role ambiguity and self role distance were different stress factors in private and public sector executives (Ahmad et al, 1985). Role inadequacy was found to be experienced by maximum number of people (Gupta, 1989). Role inadequacy stress was experienced mostly by nurses, bank employees and researchers. It was observed that the executives differed significantly from physicians in terms of role insufficiency and responsibility indicating that there was a poor fit between their skills and the job performed (Ghosh,2000).

Women's involvement in multiple roles is high; hence they have three stress indices; role overload, role conflict, and anxiety (Rosalind & Grace, 1985). Total role stress was

experienced most by nurses followed by bank employees where as University and College teachers experienced least role stress (Surti, 1982). School teachers were found to be lower on all kinds of role stresses in comparison to both gazetted officers and bank employees (Pareek and Mehta, 1997). There was no correlation between role conflict and tension. University Employees scored high on both the scales. (Srivastava et al, 2000).

The relationship between the role conflict and tension among university employees was studied the compliance with one demand makes compliance with the other difficult or impossible (Sri vastava, Anjali, Pandey & Ashok Kumar, 2000).
Subjects in the old public sector experienced more role expectation conflict, greater self-role distance and resource inadequacy than the new public sector subjects (Pattanayak, Sarangi, Arpita & Mishra, 2000). Supervisors scored higher on inter role distance, role stagnation and role expectation conflict. Where as managers scored high on role erosion with regard to coping strategies (Tyagi & Sen, 2000). A significant interaction effect of profession and category of job on occupational stress was found. Inter role distance was found significant with the organizational role stress. (Rani, Lakshmi & Mishra, 2001).

Type of Stressor

The personal stressors for working women include unfulfilled commitments, lack of personal care, and the increased personal expenditure. The family stressors include children in care of others, lack of trust worthy servant, children's education, financial expectations of relatives and the food habits of the family. Social stressors include limited social contacts, lack of recreation, degrading comments of the society on working women (Swarnalatha, 2000).

Stress Management

Managers showed a significant decrease in breathing rate after a two-day stress management programme (Vempati, Telles & Shirley,2000). Some of the studies were discussed the physical and mental sources of stress in the work environment and proposes yoga as an approach to stress management for business personnel. Karma yoga, Yoga nidra and Raja yoga are recommended for addressing specific psycho physiological behaviors (Roy,2000).

2.9 STUDIES ON WOMEN IN AGRICULTURE

a. DEMOGRAPHIC VARIABLES OF THE FARM WOMEN:

Analyses conducted during the past two decades found that a majority of the farm women were middle aged, studied up to their primary level, had medium level of Socio Economic Status (Lalitha, Siddaramaiah & Vaster, 2000). A majority of the farm women from Utter Pradesh had medium socio economic status (Cherian, Vats, Aditi & Dixit, 2000).

Age : Earlier research indicated that a majority of the farm women were in the age group of 30-50 years (Anuradha, 1992; Leena, 1993) Panwar & Gupta, 1996; Bhople & Pakti, 1998). Studies observed that a majority of the farm women were middle age category followed by young and old age categories (Suchitra, 1987; Padma, 1987; Rajini, 1989; Reddy, 1990; Puneetha, 1989; Sreedevi, 1996; Amtulwaris, 1997).

Education: Studies concluded that a majority of the respondents belonged to the illiterate category followed by primary and high school education (Padma, 1987; Reddy, 1987; Panwar & Gupta, 1996; Bhople & Pakti, 1998). 70 percent of the farm women fall in the illiterate and below primary level of education (Mohanty, 1995).

Caste: A maximum percentage of the agricultural labourers were from scheduled castes, backward castes and scheduled tribes. These women were poor landless and illiterates when compared to the women of the forward caste (Sobha, 2001). A maximum percentage of 56% of the farm women belonged to OBC category. Two thirds of the farm women belonged to scheduled castes (Bhople & Patki, 1998). The labourers were distributed from all the categories (Amtul waris, 1996; Padmalatha, 1993).

Income: The annual income level of the majority of the respondents were low income group (Rajini, 1989; Leena, 1993; Khodasker, 2001). The size of the average landholding is 1.3 acres and the family size is 5. Small farmer gets an annual income of Rs. 33,000 in Maharashtra. Annual expenditure is about Rs. 16,443. Highest percapita income, consumption, expenditure was enjoyed by small farmers than the off farm labourers and farm labourers (Khodasker, 2001).

Farm Size: Different studies have emphasized that a maximum number of the women labourers belonged to small and marginal farmers category (Padma, 1987; Suchitra, 1987; Anuradha, 1992; Sreedevi, 1992; Bhople & Patki, 1998). A majority of the women respondents owned small farms followed by large and medium farms (Sabitakumari, 1995).

Family Size : The family size in rural set up is decreasing (Reddy, 1990; Padmalatha, 1993; Reddy, 1996). 52% of the families had joint families (Mohanty, 1995).

Farming experience: Studies reported that majority of the farm women had high farming experience followed by medium and low experience (Sreedevi, 1996). Studies reported that most of the farm women have medium material possession followed by low and high (Uma devi, 1992; Reddy, 1996; Sailaja, 1996).

Research studies pointed out that female heads were facing significantly more problems than the respondents from the male headed families in child care, wage work and also during off season\ drought(Rajeswari, Krishnaswamy & Bhat,2001). Education, landholding, material possession, socio- economic status, caste, urban contact and liberalism value were negatively related with role performance, where as leadership status and family norms were positively related (Devi & Reddy, 1984).

Age at marriage: The age at marriage was found to be less than 18 years in Orissa state (Mohanty, 1995).

Poverty: The poverty profiles of female landless labourers were quite miserable. The poverty categories were measured as destitutes, very very poor, very poor and poor. The annual income of Harijans was low when compared with other castes (Rajuladevi, 2000).

Social participation: Majority of the farm women had no social participation and no membership in any organization (Sabita Kumari, 1995; Suchitra, 1987).

b. PARTICIPATION IN FARM ACTIVITIES :

The level of participation of farm women in agriculture is increasing tremendously (Verma et al., 1998). Farm women play major role in fuel collection, cooking, crop selection, intercultural practices, harvest and cold storage. In India, 60 to 80% of the work is done by the women (Rama, 1988). The involvement of farm women is in the activities of dropping the seeds behind the plough, sowing, transplanting, weeding, hoeing and scaring of birds (Bhuyan et al., 1988; Ghosh et al., 1988; Singh et al., 1988; Singh, Lakshmi and Verma, 1996). The nature of participation in post harvest activities are storage of food grains, harvesting, threshing, winnowing and carrying the produce to home (Singh, Lakshmi and Verma, 1996). 92% of the landless farm women and 70 percent of marginal category of farm women have taken up agriculture as primary activity (Mrunalini, 2001).

Several gender studies in Indian context found that 75% of the women were engaged in the preparation of land, raising of seedlings and cleaning of seeds. Where as 25.5% percent women were engaged in bird watching and only 8% in plant protection measures. Rural women spend about 16 percent of her time on agricultural activities and rest of all her time

was spent in allied activities whole the day (Korat, Dodia & Pathak, 1998). Woman spends 640 hours for intercultural operations like weeding, 384 hours for irrigation, 150 hours for transplanting manures and 984 hours for harvesting and threshing for one hectare of land. Her total work of 3485 hours in a year is more than the combined work of man of 1212 hours (Malik, J.S., Narwal, A.S., Dahiya, S. 1998).

During the peak season, an active farm woman spends seven to nine hours per day in the farm (Eswaran, Sekar & Parvathi, 1998; Bhople & Pakti, 1998) and it is ten to twelve hours per full day both at frarm and home (Mohanty, 1995; Mamata and Hiremath,2001). Maximum time was spent in weeding (300 hr\ hr) followed by uprooting (189 hr\ yr), sowing (185 hr\ yr), transplantation (178 hr\ yr) activities of farm women in East Godavari district (Mrunalini, 2001).

The farm women spend majority of their time in harvesting followed by planting, weeding, seed collection, nursery raising, planting vegetables, feeding of animals, poultry birds, and preparation of FYM (Sadangi, Mishra & Patel, 1996). Majority of the time was spent in harvesting followed by transplanting, uprooting of seedlings. Less time was spent in threshing, drying of grains and in weeding. Maximum number of respondents is prone to drudgery very often (Borah, 1998). Women labourers were involved mostly in labour intensive and time consuming activities such as transplanting, weeding, harvesting and winnowing (Sobha, 2001).

Out of the household activities, cooking consumed 30 percent of the energy, which included pre- cleaning, cooking and serving. The remaining activities washing clothes, water collection, household maintenance, fire wood collection, and childcare took 20.7%, 19.8%, 16.5%, 9.5% and 3.3% respectively (Eswaran, Sekar & Parvathi, 1998).

The ratio of women involvement to men is 8:1 in Tobacco cultivation. Growing Tobacco nurseries and the cultural operations in the main field employ about eight women folk to one man. Women are attending 100% of the grading in FCV Tobacco while the preparatory cultivation of the main field is largely by men folk alone (Kumari & Chari, 1988). Every fifth woman in is a farm worker as against every second man.

The women's participation was found to be low in the major cash crop production activities (Cherian et al., 2000). Farm women had poor knowledge about improved implements (Panwar & Gupta, 1996). A majority of the farm women participated in harvesting, picking and plucking of Cotton and Maize (Batish & Oberoi, 1998).

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c. PARTICIPATION IN ALLIED ACTIVITIES OF AGRICULTURE:

All Women Milk Producers Cooperative Societies (AWMPCS), the dairy women from strong AWMPCS have higher knowledge than the members from weak AWMPCS. It was found that the members of strong AWMPCS had higher socio economic status, education, land holding, house, farm power possession,, material possession, herd size, extension contact, level of participation, information seeking behaviour, and technical input service facilities as compared to the members of weak societies(Rao, Reddy, Veera Raghava & Rao, 2000).

Social mores and taboos, excessive burden of household works and responsibilities and distant location of the society were felt as major constraints in Dairy cooperatives (Nisha, & Subramanian, 2000).

Role of women in different activities of agriculture is quite significant (Singh & Punia, 1991; Yadav, 1998; Apparao, 2000; Meghwal & Singhal,2000). They play key roles in the entire food system in Rice based agriculture (Cabanilla, 1990; Mitra, Lahari & Mahapatra, 1990), Plantation crops (Nair & Das, 1990), Forestry (Chinnamani & Chandra, 1990), Horticulture (Pandey & Pareek, 1990), Mushroom (Kumar & Rekhi, 1990), Sericulture (Asuri, & Mahadevappa, 1990), Tobacco (Kumari & Chari, 1990), Post harvest technologies (Kushwaha, Sharma & Srivastava, 1990), Water Shed Management (Saxena & Dhruvanarayana, 1990) and Aquaculture (Sinha, 1990) are recognized and brought out by the scientists.

d. DECISION MAKING OF THE FARM WOMEN:

The decision making of farm women in agriculture is found to be increasing. Majority of the farm women took most rational decisions in the event of disaster (Verma et al., 1998). Women and men farmers were significantly different with regard to decision-making ability, achievement motivation and value orientation (Sreedevi & Rao, 1997). The extent of participation of women in decision making varied in relation to their status in the family and size of the holding was meagre.

The decisions regarding the purchase of farm equipment and the purchase of the animals were done mostly by the farm women (Mohanty, 1995). Majority of the farm women were active in decisions regarding choosing crop variety, frequency of irrigation, wage payment, time of sale of the crop produce(Raju, & Rani, 1990). Involvement of the farm women in decision making is an essential step for national up gradation (Verma , 1998).

e. MASS MEDIA PARTICIPATION OF THE FARM WOMEN:

The wetland farm women were found high adopters of mass media technologies, while the dry land farm women were relatively low adopters. The information seeking behaviour, knowledge about cultivation practices, perception of information and extension contact was found to have a positive, significant correlation with the extent of adoption. (Tamilselvi & Sundaram, 2000). Farm women listen to Radio and watch T.V. programmes most often (Anuradha, 1992; Sailaja, 1996;Meenambigai & Ravichandran, 1999).

The farm women have shown medium cosmopoliteness, organization participation, and shown high level of self reliance and extension agency contact. They have exhibited low-level mass media participation (Sabitakumari,1995; Lalitha, Siddaramaiah & Vaster, 2000).

The mean scores for the morning bulletin were more than that of the programmes of other timings. The mean scores for the women programmes were more followed by the entertainment and rural arts programmes (Meenambigai & Ravichandran, 1999).

f. OCCUPATIONAL HEALTH HAZARDS OF THE FARM WOMEN

Researches repeatedly show that the health status of the farm women is decreasing and there found many occupational health hazards (Lakshmi, 1983; Nair, 1988; Balaguru, 1992; Maurya, 1993). Different occupational hazards of the farm women include that skin irritation, poisoning, cuts, wounds, injuries, sepsis, congestion, breathing problems, swollen and sore hands and feet, sun stroke, body ache, malnutrition, anaemia, physical tiredness, psychological fatigue and eye irritation (Maurya & Maurya, 1993; Suman,1998). Drudgery index was calculated and water fetching was rated as maximum difficulty score, when all the routine activities were compared. A maximum difficulty score was recorded for four activities viz. grinding and pounding, mopping and plastering, washing clothes and bringing firewood (Mrunalini et al, 1999). The body mass index, the hemoglobin levels of the farm women were found to be poor particularly in case of landless women than the cultivators (Eswaran, Sekhar & Parvathi, 1998). 66 percent of the farm women were prone to drudgery in farm work (Mamata & Hiremath, 2001).

The labourers were the victims of the diseases like Tetanus, Anthrax & T.B. They are also the easy prey to respiratory diseases on account of exposure to dust, grains, fibres etc. Women suffer on account of heavy manual work, extreme climatic conditions and problems of posture (Grover, 1988).

Four types of hazards were proposed in different studies llike i) physical (from heat, cold, light, pressure, noise, vibration, radiation, thermal etc. ii) chemical (from dusts, gases, vapours, mists, fumes, acids, alkalis, solvents, etc. iii) biological (from infective and parasitic agents iv) Psychological (from worker's inability to live in peace with environment, both at home and at the place of work v) mechanical (from protruding and moving parts of machinery(Venkatesan & Karunanithi, 1988). Use of improved equipment reduced the drudgery of farm women to a considerable extent (Gite & Agarwal,1999). Green symptoms such as vomiting, giddiness, headache, tiredness, loss of appetite etc. were observed in the women working in Tobacco fields (Ghosh, Parikh, Saiyed, Gokani, Rao, & Takker, 1980, 1987).

g. ECOLOGICAL ENVIRONMENT OF THE FARM WOMEN:

The research studies indicated that the micro system of the farm women comprised of hazardous environment with out any education, entry in agriculture at tender age, with nuclear families are shouldering many responsibilities. Majority of the farm girls were average in both social and intelligence scores. The socio economic status was low with many debts. The income of the girls was found to be a significant contribution of the family. The meso, exo and macro systems were analysed to study the micro environment of the girls (Rayalu and Bhavani, 1999).

h. ENVIRONMENTAL AWARENESS OF FARM WOMEN

The environmental awareness of the urban women and educated women was significantly higher than the environmental awareness of rural women and uneducated women. Residential background and educational status interacts while affecting environmental awareness of the women (Dubey & Samal, 1998).

i. TRAINING ASPECTS OF THE FARM WOMEN

The training needs of the farm women were assessed by quite a number of researchers. Women preferred training in protection, processing, production and marketing. Majority opted for village-based training (Neelam, Roshni and Sheilja, 1998). The women felt that the finance and credit, selection of animals, health care and animal management as the important training needs (Raju, L.D., Nataraju & Murthy, 1999; Sethi & Pant,2001). The training needs of the farm women were increasing with the family size and family type (Bora, Hazarika, Borgohain & Hazarika, 2000).

Quite a number of the researchers reported that lack of time being the constraint expressed by the farm women in taking training followed by unawareness about the procedure of taking loan and refusal of husbands in participation and inconvenient duration of the time (Beena & Chaudhari,2000).

The training needs were assessed in integrated pest management and concluded that enormous efforts are needed to expand the IPM activities by involving the women efficiently and effectively (Verma & Yadav, 1998). A majority of the farm women belonged to medium level of knowledge (Thakor & Patel, 1998).

j. TECHNOLOGY AND THE FARM WOMEN

There is a need to generate gender specific technologies atleast for some of the occupations (Swaminathan, M.S., 1990). Identification and application of the new technologies for farm women is necessary for diversifying agriculture (Sanghi, ,1990; Sanghi & Bhattacharya, 1990).

k. MULTIPLE ROLES OF FARM WOMEN

Farm women, especially those employed off the farm, may be particularly vulnerable to stress because of the large amount of integration between home and occupational spheres increases the likelihood of having multiple and simultaneous roles (Lakshmi Devi, 1983; Knaub, Abbott, Meredith and Parkhurst, 1988). Women work longer and harder than men yet they receive low wages (Kumar & Singh, 2002).

l. EMPOWERMENT OF FARM WOMEN

Several research studies justified that women empowerment can be achieved by income enhancement and value addition by crop livestock integration (Rangnekar, 1997), technological change in farm sector (Agarwal, 1997; Padmanabhan, 2001), creating new opportunities for skilled women by means of employment (Swaminathan, 1997), by engaging them in food production and marketing (Sinha, 1999), for food security (Verma, 1998) by improving educational facilities (Swaminathan, 1997), by recognising gender roles (Regmi & Weber,1997; Balasubramanian,1997) , by organizing them for better productivity and empowerment (Sudharani, Kishori & Surendra, 2000; Narasimhan, 1999), self help groups (Gurumoorthy,2000), by value addition and drudgery reduction through technological intervention for women (Hopper, Kalaiselvi & Bhanumathy, 1997)and technological

empowerment through agricultural mechanization (Singh, 1998) were the ways and means proposed by different studies.

Thus in the field of stress research the industrialists and psychologists have concentrated only on the occupational stress of working women. With the advent of agro based industrialization agricultural scientists and extension specialists began studying the role performance of farm women. Gradually, the scientists have shifted their interests from welfare, development and to empowerment of farm women.

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CHAPTER – III

MATERIALS AND METHODS

This chapter elucidates the methods and materials adopted for the present investigation, which are aimed at analyzing the role stress under different ecological sub systems, ascertaining the relationship among different variables of the study.

The method followed in the course of investigation is presented under the following sections.

3.1. Research Design
3.2. Sampling Procedure
3.2.1 Locale of the Study
3.2.2 Selection of Districts
3.2.3 Selection of Mandals
3.2.4 Selection of Villages
3.2.5 Selection of Sample
3.3. Variables and their empirical measurement
3.4 Tools and techniques used
3.5 Method of data collection
3.5.1 Pre testing of the tools
3.5.2 Final administration
3.6 Statistical Procedures used for the data analysis
3.7 Conceptual framework of the study.

3.1. Research Design:

Expost facto research design was used for the present investigation as the variables and their relationships described in the present scenario reflect the past occurrences in the lives of the individuals studied.

3.2. Sampling Procedure:

The following sampling procedure was adopted for the present study.

3.2.1. Locale of the Study:

Two agro-climatic zones; Krishna Godavari Zone and Scarce Rainfall Zone of Rayalaseema were selected out of a total of seven zones of Andhra Pradesh after a thorough discussion with scientists and subject matter specialists.

Krishna Godavari zone consists of seven districts namely East Godavari (partly), West Godavari, Krishna, Guntur, Khammam (partly), Nalgonda and Prakasam districts. Scarce rainfall of Rayalaseema zone consists of Kurnool, Anantapur, Prakasam (Western parts), Cuddapah (Northern part), Mahaboob nagar (Southern boarder).

3.2.2. Selection of Districts:

Purposive Sampling was adopted in selection of districts for the study. Guntur district from Krishna Godavari Zone and Kurnool district from Scarce Rainfall zone of Andhra Pradesh were selected purposively for the present study.

Guntur District from the Krishna – Godavari zone is endowed with rich variety of soils. The important soils are Black cotton soils (60%), Red sandy & Loamy soils (20%), Krishna Alluvial soils (15%) and Coastal sands (05%)

It is endowed with canal sources of irrigation and occupies an important place in agriculture. Agriculture, Dairy and Poultry are the most important occupations of people in the district. The annual rainfall is a maximum of 800-1100mm. The maximum and minimum temperatures during South-west and North-east monsoon period ranges from 32°c to 36°c and 23 °c to 24° c respectively.

According to statistical abstract report of Andhra Pradesh (2001), 80 per cent of the geographical area of the district is under cultivation of food grains and commercial crops. The area under paddy cultivation for Kharif season is highest in this district i.e., three lakh hectares (A.P.Agriculture Department, 2000). The district occupies first place in cultivating commercial crops like Chillies, Tobacco and Cotton in highest area. The geographical area is 11,32,804 hectares with 3 revenue divisions, 12 agricultural divisions, and 57 revenue mandals followed by 729 revenue villages. Total geographical area is 11,32,804 hectares.

The participation of women in agriculture from small farmers (1,18,098), marginal (3,85,926) and land less categories is high.(Directorate of Agriculture,2000). Since the study is regarding the role stress of rural women in farm and home activities, this district was considered most suitable for investigation, as the agricultural activities are varied and continuous for a major part of the year. The maximum and minimum temperatures during South-west and North-east monsoon period ranges from 32°c to 36°c and 24 °c to 30° c respectively.

The Kurnool district from scarce rainfall zone of Rayalaseema was selected. In contrast to Guntur district, the rainfall is 500 – 750mm. The important soils are red earths and loamy chalka soils. The geographical area under irrigation is 2,23,766

hectares. Andhra Pradesh Training of Women in Agriculture (ANTWA), Phase II welfare programme is being implemented in this district. The ANTWA programme is taken up by the state department, where the farm women are trained in various agricultural activities and taken to exposure visits and field trips. The maximum and minimum temperatures during southwest and north east monsoon ranges from 32 °c to 36 °c. and 24 °c to 30 °c respectively.

Figure: 3.1 SELECTED DISTRICS OF ANDRHRA PRADESH

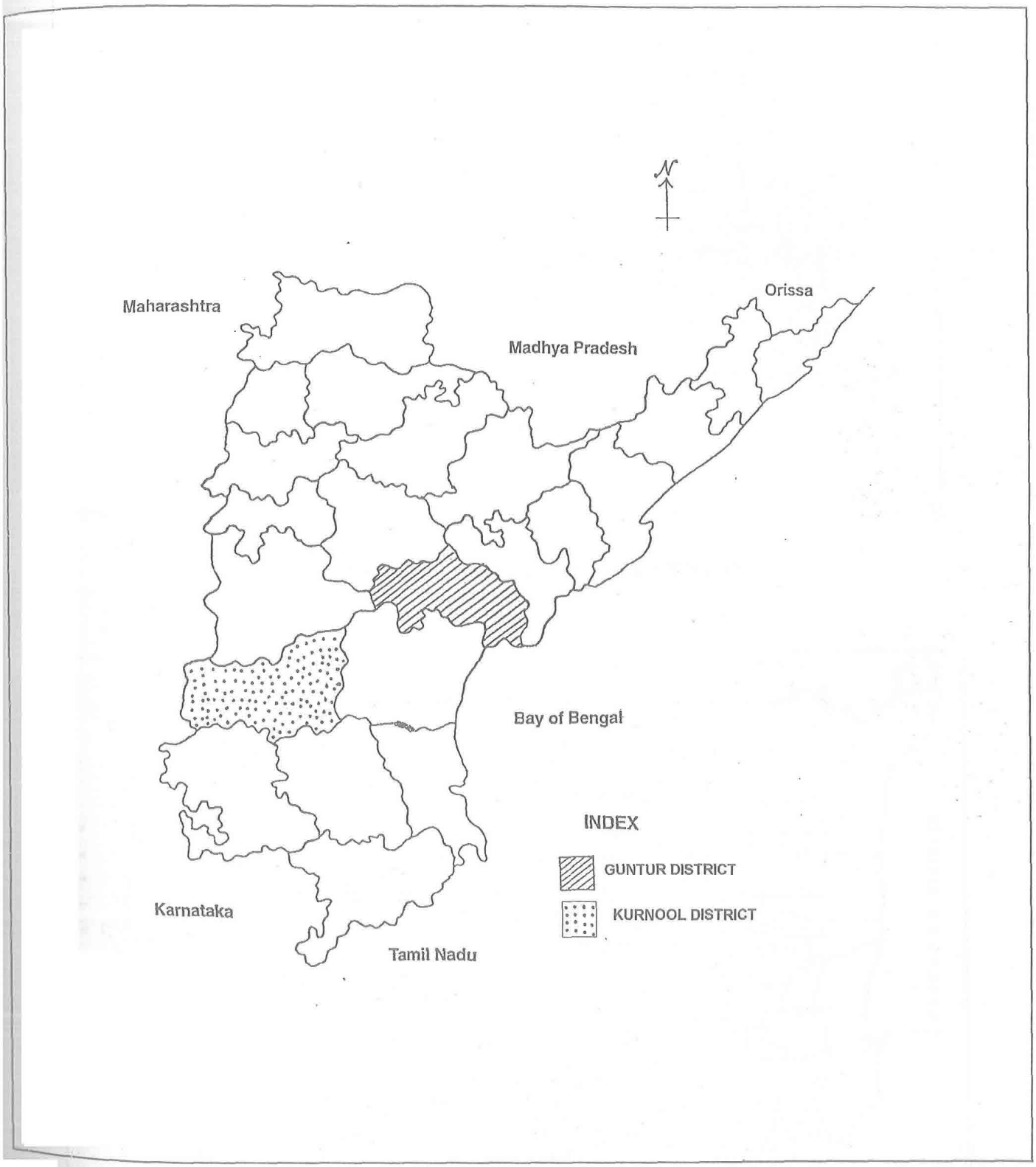


Figure: 3.2 SELECTED MANDALS OF GUNTUR DISTRICT

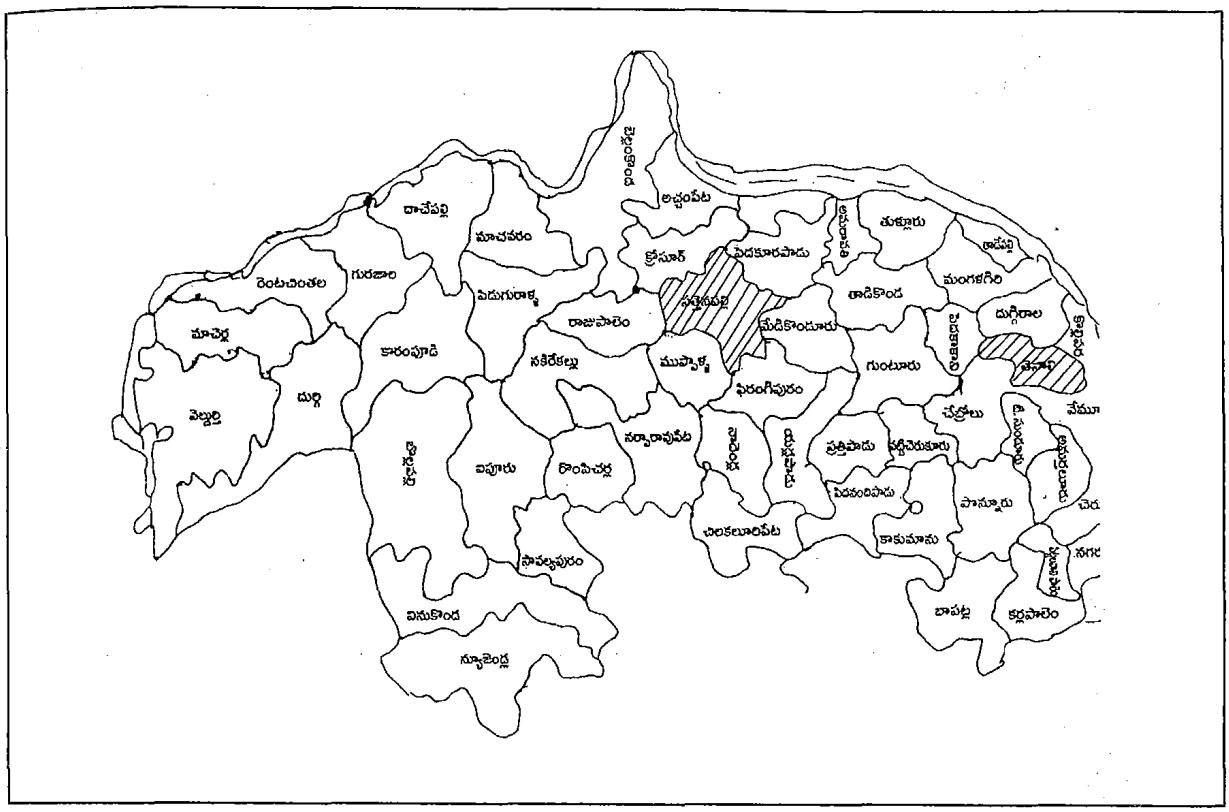
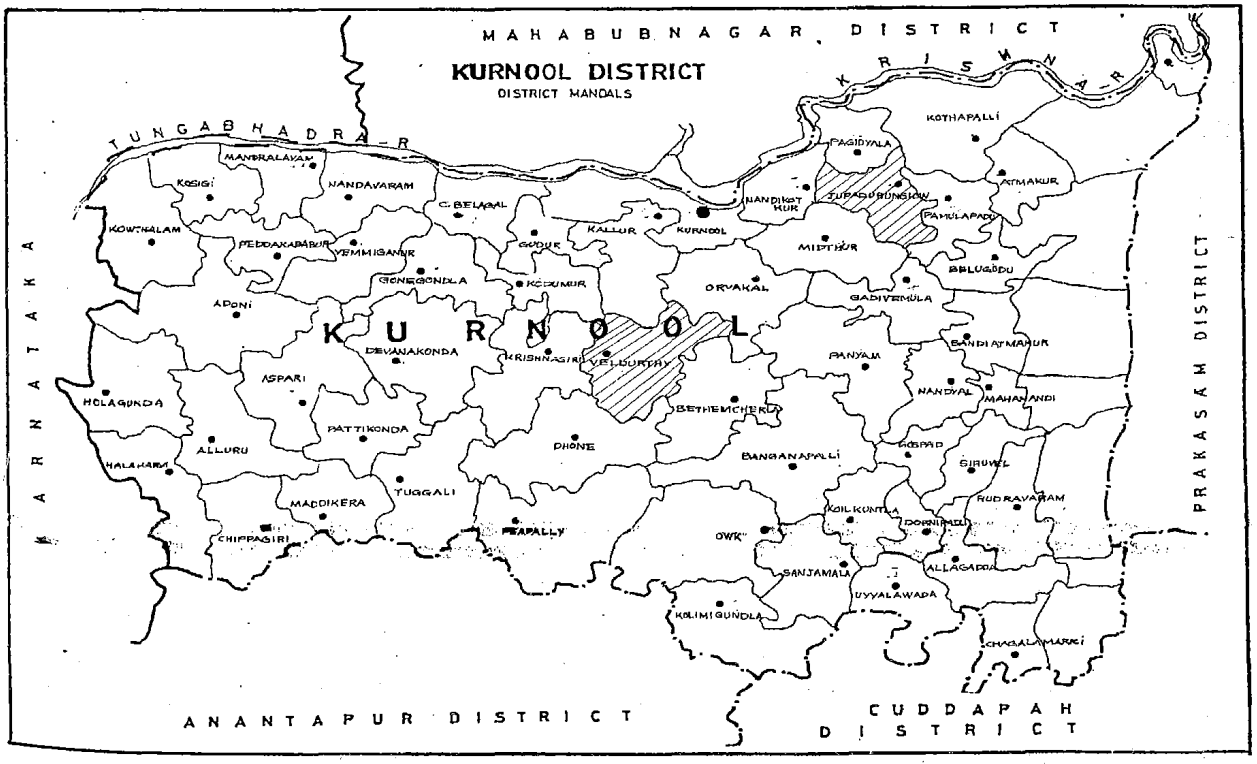


Figure :3.3 SELECTED MANDALS OF KURNOOL DISTRICT



The important crops grown in this district are Paddy, Redgram, Groundnut, Bajra, Sorghum and Jowar. Seasonal unemployment is a major problem here. As most of the land is under forests and left barren due to the lack of irrigation source, the labour force from this district migrate to other districts like Guntur district in search of employment. As the district belongs to an entirely different agro- climatic zone and the activities of the women are varied, this particular district in contrast to Guntur district has been selected purposively. The role stress may be varied according to the work roles, leisure time, employment factors and the other resources like crops and irrigation facilities present in particular area. Hence these two districts from two climatic zones were selected.

3.2.3 Selection of Mandals

Two mandals each from two districts were selected purposively. Based on the information supplemented by the Joint Directors, Directorate of Agriculture, Andhra Pradesh the following mandals were selected purposively. The Sattenapalli mandal has 19 different villages. Paddy occupies highest area (23,517 hectares) followed by Cotton, Chillie, Turmeric, Redgram, Gingelly with a small area of Blackgram, Green gram, Maize, Vegetables and Fodder crops. Tenali mandal has 13 different villages with highest area of Paddy (22,090 hectares) followed by Blackgram, Maize, Turmeric, Greengram, Mango, Banana and Coconut.

From Guntur district, two mandals were selected. These mandals had recorded the highest percentage of agricultural labourers.

- Tenali(WetBelt) –Canal source of irrigation (Krishna Canal) - (Wet crops)
- Sattenapalli (Dry belt) – Mostly rainfed - (Dry crops)

From Kurnool district, two mandals were selected as these mandals recorded the highest percentage of agricultural labourers.

- Jupadu Banglow(Wetbelt)–Canal source of irrigation (K.C.Canal) –(Wet Crops)
- Veldurthi (Dry belt) – Mostly rainfed --(Dry crops)

Mandals having at least 80 per cent of the population depending on agriculture; one from dry belt and another from wet belt have been selected for the study.

3.2.4 Selection of Villages

Villages were selected on the purposive sampling. Agricultural officers were contacted for this purpose at Sub division level. Three villages from each mandal in which farm women were actively involved in the agricultural activities have been selected for study. Thus a total of 12 villages from 4 mandals and 2 districts were selected.

Table 3.1: Selection of villages, mandals and districts.

Zone	District	Mandal	Village
Krishna Godavari Zone	Guntur	Tenali	Sangam Jagarlamudi Angalakuduru Nandivelugu
		Sattenapalli	Panidam Bhatluru Abburu
Scarce Rainfall Zone	Kurnool	Jupadu Banglow	Paramanchala Tangadencha Jupadu Banglow
		Veldurthi	Cherukula padu Ratna Palle L. Manda

3.2.5 Selection of Sample:

The sample size for the present study is 240 where 30 farm women were selected from every selected village by Quota sampling method.

The criteria followed for the sample selection were:

1. Equal number of sample from land less, marginal category and small / medium categories was selected from every village, every mandal and every district.
2. Farm women having agriculture as their main occupation and animal husbandry and/or horticulture as their secondary occupation were selected for the study.
3. Farm women in the age range of 18-45 years with at least two children, one child below the age of 5 years were selected for study.

Table 3.2: Distribution of the sample

District	Mandal	Village	Landless/ Marginal (Number)	Small/ Medium (Number)	Total (Number)
Guntur	Tenali	Sangam Jagarlamudi	10	10	20
		Angalakuduru	10	10	20
		Nandivelugu	10	10	20
	Sattena Palli	Panidam	10	10	20
		Bhathuru	10	10	20
		Abburu	10	10	20
Kurnool	Jupadu Banglow	Paramanchala	10	10	20
		Tangadencha	10	10	20
		Jupadu Banglow	10	10	20
	Veldurthi	Cherukulapadu	10	10	20
		Ratna Palle	10	10	20
		L. Manda	10	10	20
Total number of farm women			**120**	**120**	**240**

Thus the final sample comprised of 240 farm women drawn by Quota sampling from 12 different villages and 4 different mandals and 2 districts of Andhra Pradesh.

3.3 Variables and their empirical measurement

A variable is a symbol to which the numerals or values are assigned. They may be either continuous, dichotomous or polynomials (Kerlinger, 1995).

The variables involved in the present investigation are as follows:

3.3.1 Dependent Variable

The dependent or response variable is the presumed effect, which varies concomitantly with changes or variation in the independent variable (Kerlinger, 1995). The dependent variable in the present investigation is **'ROLE STRESS'.**

3.3.2 Independent Variables

The independent or stimulus variable is the presumed cause, variable or a factor which is measured, manipulated or selected by the researchers to determine its relationship with an observed phenomenon (Kerlinger, 1995). The independent variables selected for the present investigation are categorized into 3 groups.

a. **Personality Variables**

Self-efficacy, self esteem, locus of control, physical health and gender role orientation were different personality variables that were selected for the study.

b. **Family Process Variables**

The family related variables of family size, family type and family environment were considered for the study.

c. **Coping Process Variables**

The variables coping strategies and support system were studied under this category.

3.3.3 Intervening / Demographic Variables

The demographic variables age, education, caste, income, land holding, socio economic status, farming experience, age at marriage, marital status and number of children were considered for the study.

Table 3.3: Variables and their empirical measurement

	Variables	Measuring Instrument	Dimensions measured
a)	**Dependent / outcome variable**		
	Role Stress	**Role stress scale** Developed by the investigator and tested for validity and reliability.	**The scale measures the role stress in different dimensions.** **a) Ecological / Systemic dimensions** 1) Role stress due to micro system factors 2) Role stress due to meso system factors 3) Role stress due to exo system factors 4) Role stress due to macro system factors **b) Conflictive dimensions** 1) Role overload 2) Role expectation conflict 3) Inter role distance 4) Role stagnation 5) Self role distance 6) Role erosion

b)	**Independent / Process variables**		
1)	**Personality variables**		
	Self Efficacy	Scale by Ralf Schwarzer &Jerusalem (1993) was modified and tested for validity and reliability.	It measures the capabilities of women in problem solving.
	Self Esteem	Scale of Kapadia and Verma (1989) was modified simplified and tested for validity and reliability.	It measures the perceived capabilities of the self. It measures a sense of self worth.
	Locus of Control	Levenson's locus of control scale (1992) simplified and tested for validity and reliability.	This scale measures the locus of control in 3 areas – Powerful on others (P) Chance control (C) and Individual control (I).
	General Health	Questionnaire developed by the investigator and tested for validity and reliability.	General health component in the areas of (1) Physical; (2) Physiological (3) Reproductive and (4) Overall health.
	Gender Role Orientation	Scale by Kapadia and Verma (1989) simplified and tested for validity and reliability.	It measures Androgynous, Feminine and Masculine and Undifferentiated characteristics of individuals.
2)	**Family Process Variables**		
	Family Environment	Scale by Bhatia and Chadda (1996) – simplified and tested for validity and reliability.	It measures dimensions Cohesion, Expressiveness, Conflict, Acceptance and caring.
	Family size & family type	General information schedule	It is a tool for collection of general information.
3)	**Coping Process Variables**		
	Coping Strategy	Scale by Moos (1988) was simplified and tested for validity and reliability.	It measures 8 dimensions: Logical analysis, Positive appraisal, Guidance and support, Problem solving, Cognitive avoidance, Acceptance or resignation, Seek alternative rewards and Emotional discharge.
	Support system	Questionnaire developed by the investigator	It measures support in the areas Instrumental & Financial, informational, Service and Socio-emotional aspects.

Variable	Measuring instrument
C. Intervening / Demographic Variables:	
Age Education Caste Income Landholding Material Possession Socio-economic status Farming experience Age at marriage Marital Status Number of children	General information schedule developed by the investigator

3.4 TOOLS AND TECHNIQUES USED FOR THE STUDY

The tools and techniques used for the present investigation are discussed under the following sub heads:

3.4.1 ROLE STRESS SCALE

Role stress scale was designed and developed by the investigator for the purpose of present investigation, as it is one of the objectives.

The role stress scale is an attitude scale developed to measure the role stress perceived by the farm women in performance of their activities in daily routine. The scale ensures an estimate of the farm women's feeling of stress encountered in performance of their roles. The role stress scale measures ten different dimensions. The scale is applicable to farm women in rural situation.

Construction of the scale

Attitude is defined by Thurstone (1946) as the 'degree of positive or negative affect associated with some psychological object'. An individual who has associated with positive affect with some psychological object is said to have a favourable attitude towards the object. An individual who has associated negative affect with the same psychological object is said to have unfavourable attitude towards the object.

In order to study the role stress in detail it was decided to develop a comprehensive role stress scale covering the most important areas of role stress.

Although there were some inventories to measure the role stress of working women, no single inventory is applicable to measure the role stress of women in agriculture. Thus keeping the crucial need in view an attempt has been made to develop role stress scale.

Among the techniques available for construction of scales, the Thurstone's equal appearing internal scale and the Likert's summated rating scale are quite well known. While the Thurstone technique makes use of objective judgement in the selection of items, it requires a large number of judges and is very time consuming. The Likert technique obviates these difficulties. Edwards (1957) comprehensively compared both the scales from the same universe of statements and found the two techniques fairly comparable. Therefore the technique adopted to develop the attitude scale in the present study was of **Likert's Summated ratings** type.

Collection of items / statements

A statement may be defined as anything that is said about a psychological object (Edwards, 1957). A large number of statements (items) on each aspect of attitude to be studied were collected from relevant literature, experts in the field and informal interviews with the farm women, newspaper editorials, magazines, journals, other written articles and by brainstorming the contents of each statement by the investigator.

Thus for the first draft of Role Stress Scale, on the basis of different observations, a total of 250 statements were framed and were categorized under different areas of 10 dimensions of role stress.

Prelude to Item Selection

The statements thus collected were carefully examined in the light of 14 criteria suggested by Edwards (1957) for screening the items.

The guidelines for editing the statements are:

- Avoid statements that refer to the past rather than to the present.
- Avoid statements that are factual or capable of being interpreted as factual.
- Avoid statements that are likely to be endorsed by almost everyone or by almost none.
- Select statements that are believed to cover the entire range of the affective scale of interest.
- Keep the language of the statements simple, clear and direct.

- Each statement should consist of only one complete thought.
- Statement containing universals such as all, always, none and never often introduce ambiguity and should be avoided.
- Words such as only, just, nearly and others of a similar nature should be used with care and moderation in writing statements. Whenever possible, statements should be in the form of simple sentences rather than in the form of compound or complex sentences.
- Avoid the use of words that may not be understood by those who are to be given the completed scale.
- Avoid the use of double negatives.

Thus by keeping all the above points in view, the 250 statements that were framed initially were edited to 210 statements.

Item Classification

The statements were typed in a random sequence and presented to a group of 60 experts from various national and state departments. For this purpose, the experts from the fields of Agriculture, Psychology, Extension and Rural Development were considered as judges, who had enough knowledge about the role of women in agriculture. They were asked to check each of 210 statements carefully for the relevance. The judges were requested to indicate their responses for each statement ranging from highly relevant to not relevant (5 categories of responses viz. highly relevant, relevant, undecided, least relevant, not relevant). The judges were also requested to:

- Check whether the statements included only one basic idea.
- Suggest whether the title of the inventory was appropriate.
- Check whether the content was appropriate to the area of the study.
- Suggest any change in each statement.
- Make any modifications.
- Judge whether semantically the items were accurate or not.
- Comment on the language and grammatical structure of the items.
- Add items in each category, if the judges feel necessary.

In the light of the comments and criticism of the experts, the statements were modified and rewritten. The statements with 75 percent approval of the experts were retained. Thus out of 210 statements, 20 statements were rejected and 190 statements were subjected to item analysis.

Item Analysis & Item Selection:

The next phase considered determining the relevance of a particular statement and eliminating those, which did not discriminate well between persons holding different

attitudes. As a basis of rejecting statements in the method of summated ratings, item analysis method as suggested by Edwards was used.

For item analysis, the items were first administered to a random sample of 48 farm women in Shamshabad panchayat of Ranga Reddy district. The farm women were asked to give their spontaneous answers to each statement on 3 rating points namely Agree, Neutral, and Disagree. As most of the respondents were illiterates, it was difficult for them to express in a 5 point continuum i.e., strongly agree to strongly disagree. Hence the 3 rating points agree, neutral, disagree have been chosen finally. The list of items was tested on farm women and was subsequently modified in the light of responses and interviews. As the construct 'role stress' is quite used in a negative connotation by many of the researchers, the statements were constructed in a negative direction (as most of the stress inventories the statements constitute with negative meaning). For each item if the answer is 'agree', the numeral value of 3.0 is given, if the answer is 'neutral', the value of 2 is given and if the answer is `disagree' the numeral value, 1.0 is given. The score for each individual on the scale was computed by summing the weights of the individual item response. This is why Bird called this type of scale the `method of summated rating'.

The frequency distribution of scores based upon the responses to all the statements was obtained. Following Edwards, all the respondents were arranged in ascending order of total scores on the summated rating responses. There after 25 per cent of the subjects with the highest total scores and also the 25 per cent of the subjects with the lowest total scores were taken assuming that these two groups provided criterion groups in terms of which to evaluate the individual statements. For evaluating the responses of the high and low groups to the individual statements, critical ratio to measure the extent to which a given statement differentiates between the high and low groups of respondents for each statement was calculated by using the following formula.

$$t = \frac{|\bar{X}_H - \bar{X}_L|}{\frac{SH^2}{n_H} + \frac{SL^2}{n_L}}$$

Where $\bar{X}_H$ = the mean score on a given statement for the high group.

$\bar{X}_L$ = the mean score on the same statement for the low group.

SH^2 = the variance of the distribution of responses of the high group to the statement.
SL^2 = the variance of the distribution of responses of the low group to the statement.
N_H = the number of subjects in the high group.
N_L = the number of subjects in the low group.

Since 't' value is the measure of the extent to which a given statement differentiates between the high and low groups, the statement with 't' values above 1.9 was selected for the final draft to Role Stress Scale. Thus out of 190 statements retained after rating, 60 statements were rejected and 130 items were retained for the final form. In the light of findings the role stress items were further split in to two main categories.

Final Selection of statements:

Out of 250 initial statements 130 statements were selected for the final draft of role stress scale based on

- The significant 't' values obtained.
- The feedback and recommendations of experts.
- The guidelines suggested by Edwards (1948).

Thus finalized Role Stress Scale comprising of 130 statements was translated into regional Telugu Language. The scale was judged by 30 experts for its concurrence with English version. The necessary modifications were done in the light of the comments made by judges.

Description of the area of Role Stress Inventory

As per the suggestions of experts the 130 selected items were categorized under different areas of role stress, listed as follows:

Table 3.4: Areas of Role Stress Inventory

	Dimension	**Number of Statements**
a)Ecological/ Systemic Role Stress	1) Role Stress with in the micro system	
	a) Agricultural role stress	15
	b) Household role stress	15
	c) Biological role stress	15
	d) Economic role stress	10
	e) Social/recreational role stress	10
	2) Role stress with in the meso system	10

	3) Role stress with in the exo system 4) Role stress with in the macro system	10 10
b)Conflictive Dimensions	1) Role overload. 2) Role expectation conflict. 3) Inter role distance. 4) Role stagnation. 5) Self role distance. 6) Role erosion.	10 5 5 5 5 5

(A more detailed theoretical description of the areas of role stress is given in Discussion chapter under section 5.1).

Scoring Pattern

Role Stress Scale is an attitude scale containing 130 items categorized into two areas each of which is further divided. The responses range from agree (3), sometimes (2) and never (1) which carry the scores of 3, 2 and 1 respectively.

Thus, a maximum possible score is 390 and minimum score is 130. The scoring pattern for the respective statements is presented in the Table 3.5 given below. The respondent's total score is obtained by adding the scores over all the individual items in the scale. As each area of role stress is unique and distinctive in nature, the number of items under each category varies as per need.

Table3.5: Role Stress Scale – Scoring pattern

S.No.	Dimension	Minimum Score	Maximum Score
a)	**Systemic dimensions**		
1)	Role stress due to micro system	65	195
2)	Role stress due to meso system	10	30
3)	Role stress due to exo system	10	30
4)	Role stress due to macro system	10	30
	Total	**95**	**285**
b)	**Conflictive dimensions**		
1)	Role overload	10	30
2)	Role expectation conflict	5	15
3)	Inter role distance	5	15
4)	Role stagnation	5	15
5)	Self role distance	5	15
6)	Role erosion	5	15
	Total	**35**	**105**
	Grand Total	**130**	**390**

As each area of role stress is unique and distinctive in nature, the number of items under each category varies as per need.

Reliability of the Scale

Reliability is the accuracy or precision of a measuring instrument. It refers to the dependability, stability, consistency, predictability and accuracy of the measuring instrument. Coefficient of stability or dependability was established for the constructed role stress scale through test – retest method. The role stress scale was administered on 30 farm women twice at an interval of fortnight. The agreement between the scores obtained from the two applications for the same scale was determined by means of correlation coefficient or coefficient of stability. The coefficient was highly significant (r = 0.92) which testifies the reliability of the scale.

Validity of the Scale

The validity of the scale of a measuring instrument depends up on the fidelity with which it measures the particular item under assessment. As the content of the scale was derived from a list of statements and experts' opinions as a measure of checks, it was assumed that the scores obtained by administering the attitude scale of this study measured what was intended to measure. More over, the 't' values being significant for the statements constituting the scale explained that the statements had high discriminating values. Therefore, reasonably enough, the scale was taken as a valid measure of the desired dimension. The validity is termed as content validity as mentioned by Guilford.

3.4.2 SELF EFFICACY SCALE

This scale is a Likert type scale with multiple choice responses presented in a continuum. It is an estimate, which measures the 'perceived capacity of farm women to solve the problem efficiently'.

Self-efficacy scale by Ralf Schwarger and Matthias Jerusalem (1993) and self-efficacy scale by Narang (1988) were reviewed and 20 statements were prepared in the first step. These statements were edited and only those, which were to the point and short, were selected. Only culture free statements were considered. Some of the questions were modified to suit the respondents' level of understanding.

The final scale comprised of 10 statements and there are three responses ranging from agree, neutral and disagree, which carry the scores of 3, 2 and 1 respectively.

Reliability of the scale

Coefficient of stability was established for the present scale by administering the scale on 30 farm women twice at an interval of fortnight. The correlation coefficient was found to be highly significant (0.97) which testifies the reliability of the scale.

Validity of the scale

For estimating validity of the scale, the first essential quality is it should be highly reliable. The present scale shows high reliability coefficient. Apart from this, the role stress scale was also validated by 30 experts from various departments for its representative ness. All the experts judged the scale as an appropriate estimate of self-efficacy with high face validity.

3.4.3 SELF ESTEEM SCALE

This scale is a Likert type scale with multiple choice responses presented in a continuum. This scale is an estimate of self-esteem and indicates the extent to which the individual believes herself as capable, successful, significant and worthy.

The above scale was developed based on two scales, Kapadia and Verma (1989) and the scale by Prasad and Thakur (1988). Simple questions, which are appropriate to the rural situation, are considered. The statements, which are short, simple and suitable to the respondents' level, are short-listed. Some of the statements were modified to suit the working atmosphere of the farm women.

The final scale comprised of 11 statements and there are three responses ranging from agree, neutral and disagree which carry the scores 3, 2 and 1 respectively. Thus in the final format the maximum score is 33 and minimum score is 11.

Reliability and validity of the scale

The test is said to be reliable when it measures what it is supposed to measure. The test has high internal consistency as it has been taken from reliable source. For test, retest reliability the test was administered on a sample of 30 farm women twice at an interval of a fortnight. The test retest coefficient was found to be 0.82, which testified to the reliability of the scale.

As the reliability coefficient was found significant, the test must have predictive validity. Apart from this, the concurrent validity was also established with Self Esteem

Inventory by Prasad & Thakur(1988). This was done by giving both the scales one after another with an interval of half an hour in between for the same sample (N=30). Scores of both the scales were correlated with each other and the correlation coefficient was 0.84.

3.4.4 LOCUS OF CONTROL SCALE

The Locus of Control scale is also a Likert type of scale with multiple-choice responses ranging from Agree to Disagree. This is an estimate of the degree or extent to which a person believes that she is a master of her fate.

The Locus of control scale was developed based on the scale by Levenson (1992). Simple questions, which are appropriate to the rural situations, were considered. The statements which are short, simple and those which suit the rural situation were considered. Some of the statements were modified to suit the purpose.

The final scale comprised of 12 statements. In the final scale, 4 statements each for P – Powerful others, C – Chance control and I – Individual control was taken. The test already possesses high split half reliability. There are three responses ranging from agree to Disagree. Thus the maximum score is 36 with a minimum score of 12.

Reliability and Validity of the scale

The test retest reliability of the test was found after administering the test to a sample of 30 farm women twice after a time gap of a fortnight interval. The test retest reliability coefficient was found to be 0.77, which testifies to the reliability of the scale.

As the reliability coefficient was found to be significant, the test should also possess predictive validity. The scale was also validated by the experts for its face validity. The experts judged the scale as an appropriate estimate of locus of control.

3.4.5 GENERAL HEALTH INVENTORY

General Health was measured by the questionnaire containing information about physical, physiological, reproductive, other serious complaints, and over all health aspects. The minimum score is 35 and the maximum score is 105.

The responses were ranged from always, sometimes and never, which indicate the reverse scores of 1,2 and 3 respectively. Maximum score indicates that the subject has

good health. As the score decreases it is understood that the subject has more health problems.

3.4.6 GENDER ROLE ORIENTATION / GENDER STEREOTYPE SCALE

It is a modified version taken from Kapadia and Verma scale (1989). The original scale consists of 19 masculine traits and 20 feminine traits. In the present scale 20 traits, which are relevant, rural oriented and suitable for farm women were selected. 10 traits from masculine and 10 traits from feminine roles were selected for study.

The responses range from agree to disagree. The assignment of scores is in the order of 3, 2 and 1 respectively. The subjects scoring 20 and above on both the traits are called Androgynous subjects. The subjects scoring 20 and above on femininity with a score below 20 on masculinity are called as feminine subjects. The subjects scoring 20 and above on masculinity with a score below 20 on femininity are grouped as masculine subjects. The subjects scoring less than 20 on both masculinity and femininity items are grouped as undifferentiated.

Test retest reliability score was found to be 0.76 after a time interval of fortnight administered on the same sample of farm women (N=30). The instrument was found to have a high face validity and content validity as per the opinion of judges.

3.4.7 FAMILY ENVIRONMENT SCALE

The family environment scale is based on the family environment scale by Bhatia and Chadda (1996). Out of the 8 dimensions of family environment, only 4 dimensions; Cohesion, Expressiveness, Conflict, Acceptance and caring which come under the sub head `Relationship dimensions' are considered for the purpose.

There are about 29 statements for which the responses range from agree, neutral and disagree. It is also a Likert type of summated scale. As the respondents are rural based and most of them are illiterates the response categorization was reduced from 5 to 3. The scoring for the responses are agree (3), neutral (2) and disagree (1). Thus the minimum score is 29 and the maximum score is 87. The maximum score indicates the family has good family environment.

Test retest reliability score was found to be 0.92 after a time interval of one week, administered on the same sample of farm women (N=30). The instrument was found to have both face and content validities according to the experts' opinion. Those items, which have at least 75 percent agreement among the judges, were retained for the final scale.

3.4.8 COPING SCALE

For this purpose, the Coping Response Inventory by Rudolf Moos (1999) was taken as the source. The statements which are appropriate, brief, to the point and suitable to the farm women were selected. Some of the statements were modified to suit the purpose. 3 statements each from 8 categories of coping (Approach to Avoidance) were selected. The three responses agree, neutral and disagree carry the scores 3, 2 and 1 respectively. The total statements are 24. The maximum score is 72 and the minimum score is 24.

The reliability coefficient was found to be 0.82 on test retest method of administration to a sample of 30 farm women after a time interval of fortnight. The validity is established by judging the instrument for its content by 30 judges. The face validity of the instrument was found to be high.

While administering the scale, the respondents were explained about the purpose of the test and about a crisis like flood, drought, harvest failure, epidemic, and presence of a disabled child, death of a near one, domestic violence and unemployment etc. The respondents were given time to think over about the coping strategy they used. High score on the scale indicated higher coping strategies and low scores on the scale indicated lower coping abilities.

3.4.9 SUPPORT SCALE

The areas and sources of support were obtained by a separate schedule. There is scoring procedure from different areas and from different sources of support. The support from the family and society in terms of instrumental, informational, service and socio-emotional and moral support aspects were taken for measurement. NIMH Support scale was taken and modified to suit the purpose. The responses range from Frequently (3) Sometimes (2) and Never (1). The highest possible score is 84 with a minimum score of 28.

3.4.10 GENERAL INFORMATION SCHEDULE

General information schedule was formulated to collect the information on demographic and family related factors. This schedule comprised of the questions to collect the information on age, education, caste, income, land holding, material possession, socio – economic status, family size, family type, marital status, age at marriage, farming experience and number of children.

3.5 METHOD OF DATA COLLECTION

Pre testing of the developed tools was done before administering them on the actual sample of the study. The methods of data collection employed for the present investigation are as follows:

3.5.1 PRE – TESTING / PILOT STUDY

Pre testing was done on 30 farm women of Nidumukkala village, Guntur district to test the suitability of the selected tools for the present investigation. The tools selected were found to be simple, easy to understand and comprehend by the respondents. The average time required for administration of the selected tools were as follows:

Table 3.6: Tools and Time Consumption

S.No.	Tool	Time consumed (Minutes)
1.	General information schedule	10
2.	Role stress scale	25
3.	Self efficacy scale	5
4.	Self esteem scale	5
5.	Locus of control scale	5
6.	General health scale	5
7.	Gender role orientation scale	5
8.	Family environment scale	15
9.	Coping strategy scale	10
10.	Support scale	5
	Total	**90**

Thus slight modifications were done in the scales without disturbing the meaning after conducting the pilot study / pre-testing. The selected tools were finalized for the administration on the actual sample of the investigation.

3.5.2 FINAL ADMINISTRATION

Prior to the data collection, discussions were held with the Joint Directors of the districts and also with the Joint Director, Directorate of Agriculture, Hyderabad regarding the purpose of visit. The tours were properly planned and the concerned agriculture officers were intimated in advance. The necessary arrangements were made in consultation with the agricultural officers.

The key villages were selected where the women are involved actively in agriculture based on the Agriculture Officer's information; the sample was selected with the cooperation of the village president. In order to develop a good rapport with the respondents, the initial visits were planned to their farms, where a large group of women were contacted and explained about the purpose of visit. As a basis of establishing rapport with the women, their pre school children were taught rhymes and stories.

The respondents were given clear-cut instructions and they were explained in detail about the test. The investigator interviewed the respondents individually. It took nearly 3 months to complete the data collection as 3 to 4 respondents were interviewed per day. Sometimes, one respondent was visited twice when she did not have much time. The collected information was coded, scored, tabulated and analyzed using appropriate statistical procedure.

3.6 STATISTICAL PROCEDURE USED FOR DATA ANALYSIS

The data obtained were tabulated and analyzed by using the following statistical procedure.

Frequencies and Percentages:

Frequencies and percentages were computed for distribution of subjects according to the variables under study.

Arithmetic mean (A.M.):

Arithmetic mean is defined as the sum of observations divided by the number of observations.

Arithmetic means were calculated for variables using the formula $\overline{X} = \Sigma X/N$

$\overline{X}$ = Arithmetic mean
ΣX = Summation of individual scores
N = Total number of observations.

Standard deviation (S.D):

Standard deviation is defined as the positive square root of the means of the sum of squared deviations taken from the mean of distribution.

$$\sigma = \sqrt{\frac{1}{n}[\Sigma X^2 - (\Sigma X)^2]}$$

Where σ = Standard deviation
ΣX = Sum of the deviation of the scores from mean
n = Number of items

Standard deviation was used to find out the variation in the scores on variables in categorization of the respondents.

Pearson's product moment correlation (r) :

The degree of association or the extent of relationship is known as the Coefficient of correlation. To find out the relationship among different variables, Pearson's product moment correlation was employed and the formula used is given by.

$$r = \frac{\Sigma XY - \frac{(\Sigma X)(\Sigma Y)}{n}}{\sqrt{(\Sigma X^2 - \frac{(\Sigma X)^2}{n})(\Sigma Y^2 - \frac{(\Sigma Y)^2}{n})}}$$

r : Correlation Coefficient between X and Y.
ΣX : Sum of scores of independent variables X.
ΣY : Sum of scores of dependent variables Y.
ΣXY : Sum of product of X and Y.
ΣX^2 : Sum of squares of X variables.
ΣY^2 : Sum of squares of Y variables.
n : Size of the sample.

The computed r values were compared with the table values of Coefficient of Correlation at 1 and 5 percent level of significance.

Multiple linear regression analysis :

Multiple linear regression analysis is a tool used to determine the degree to which the dependent variable could be predicted with the selected independent variables and also to trace out the contributory influences of independent and dependent variables.The significance of coefficient of multiple determination (R^2) was tested by using the F test,

while the test of significance of partial regression coefficient(b) was tested with the help of students 't' test.
The formula is given by:

$Y = a + b_1x_1 + b_2x_2 + \ldots\ldots\ldots\ldots + bn\ xn.$
a = Constant
b_1 = area regression coefficient
y = Dependent variable
x = Independent variable

The regression coefficient bi was tested for significance using the formula.

$$t\,(n - K - 1)\ df = \frac{bi}{SE\ (bi)}$$

Where n = number of observations
K = number of independent variables.
SE = Standard error
bi = regression Coefficient
t = test criterion for significance.

The Coefficient of multiple determination (R^2) was calculated by

$$R^2 = \frac{\text{Regression sum of squares (RSS)}}{\text{Total sum of squares (TSS)}}$$

Where $(RSS) = bi\ \Sigma X_1Y + b_2\Sigma X_2Y + \ldots\ldots\ldots\ldots + bn\ \Sigma X_nY$
$(TSS) = \Sigma Y^2$

R^2 is always less than unity and expressed in percentage. It measures the extent of variation in dependent variable (Y) which can be explained by the independent variables (xi) together.

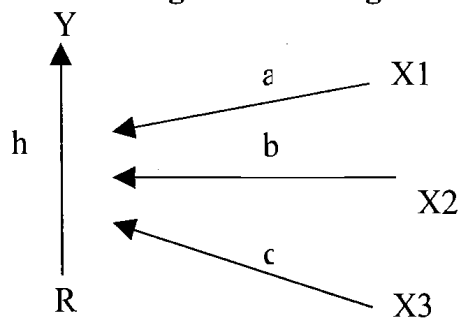
Path analysis

It is a multi equation causal model which makes explicit a researcher's assumption about the sources of co-variation of between exogenous and endogenous variables about the mechanisms through which changes in an exogenous variable may affect a response variable (Kerlinger, 1995).The path coefficients are the standard regression coefficients. Path Cofficients are directional and may be positive or negative and greater than or lesser than unity. The path Coefficients were computed to study the direct,indirect and substantial indirect effect of the independent variables on the dependent variable.

In the present study if it is assumed that role stress Y is the funciton (effect) of various components or causal factors like self efficacy (X_1), self esteem (X_2) and locus of

control (X_3), then the assumed path through which the factors could be associated can be written as

Fig. 3.4 Path Diagram showing the relationship of the variables



From the above figure it is obvious that Y (role stress) is the result of X_1, X_2, X_3 and some other undefined factor designated by 'R'. Further X_1, X_2 and X_3 are in turn correlated, a, b, c and h are the path coefficients due to respective variables. Path coefficient can be defined as the ratio of SD of that effect due to a given cause to the total SD of the effect.

The path Coefficient from X_1 to Y is a = X1\ Y
The path Coefficient from X_2 to Y is b = X2 \ Y
The path Coefficient from X_3 to Y is c = X3\ Y
The path Coefficient from R to Y is h = R \ Y
Where as r (x_1 y) = a + r (x_1 x_2) b + r (x1 x_3) C.

The above equation gives correlation between x_1 and y and its interpretation includes three parts namely.
i) Due to direct effect of X_1 on Y which is equal to 'a'
ii) Indirect effect of X_1 on Y via X_2 which amounts to r (X_1 X_2) b.
iii) Indirect effect of X_1 on Y via X_3 which amounts to r (X_1 X_3) C.
Like wise, correlation between X_2 Y; X_3 Y and RY can also be interpreted.

3.7 CONCEPTUAL FRAMEWORK OF THE STUDY

Conceptual framework provides a global idea of the area under study. It is the backbone for any investigation that specifies the anticipated path through which the objectives of the study can be achieved. According to Gay (1987), review is the key indicator for developing a conceptual framework. Based on the extensive review of literature in the field of role stress as described in the chapter II, the following conceptual framework was designed for the present investigaiton. The conceptual frame work was

constituted with a complex set of variables indicating the postulated relationship among them. A conceptual model was developed to study the relative effectiveness between the dependent variable role stress and independent variables of demographic variables, personality variables, family environment, coping process and support system.

The role stress being the dependent variable is placed at the centre with ecological environments encircling it as concentric rings. All the variables depending on the the proximity are placed outside from the role stress. The variables causing relative effect are placed in the framework showing the relationship. The cause and effect relationship is observed between the variables demographic and the micro role stress, personality variables and micro role stress, support and personality, support and exo system role stress, support and coping, coping and micro role stress, coping and family environment, family environment and micro role stress. Thus it is a predicted symbolic relatioship between different group of variables.

Fig 3.5 CONCEPTUAL FRAME WORK

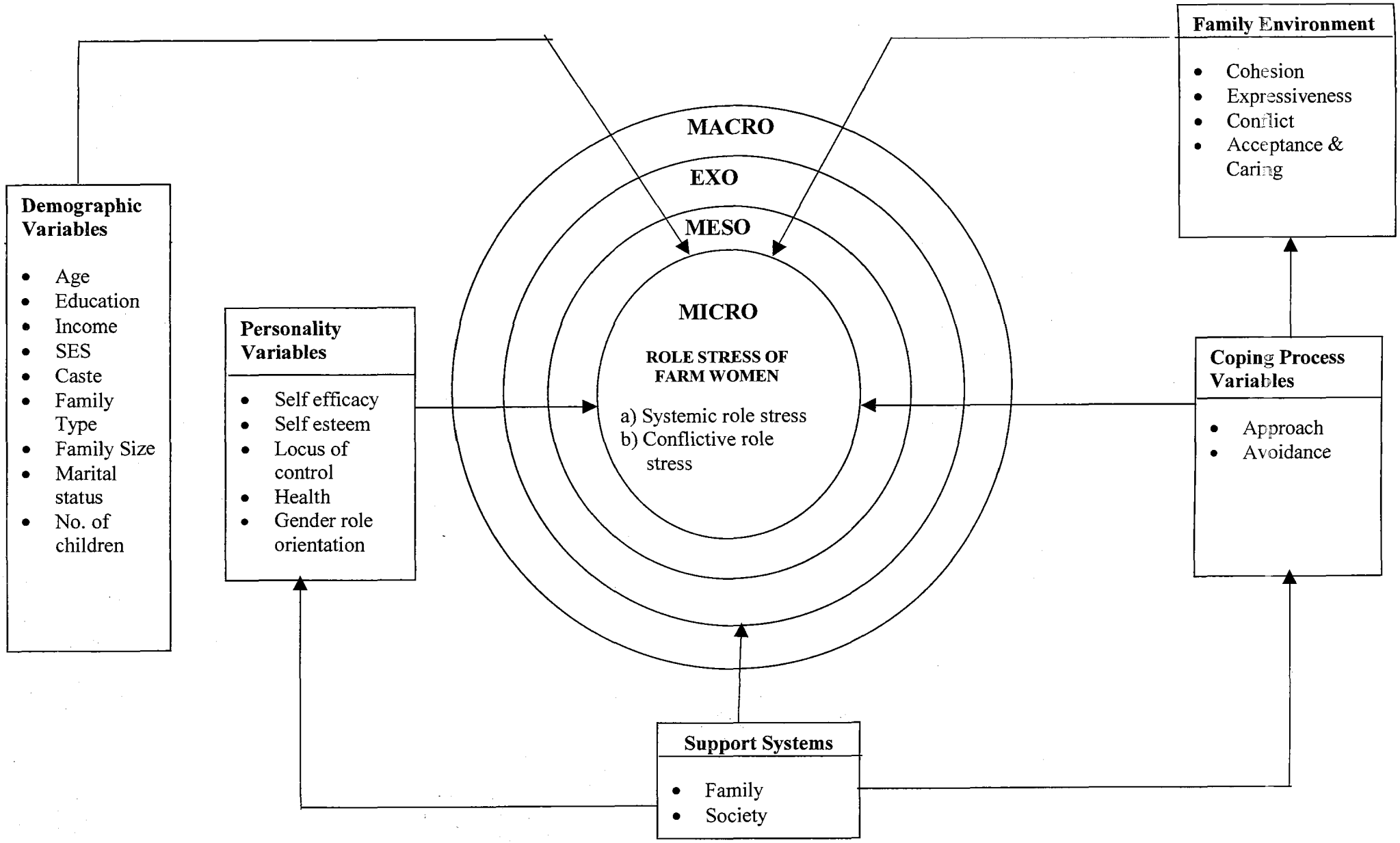


Fig 3.6 A farm woman, cleaning the cattle shed at home

Fig 3.7 Milking, feeding and cleaning the cattle are additional responsibilities

Fig 3.8 Women labourers do not bother about hot sun

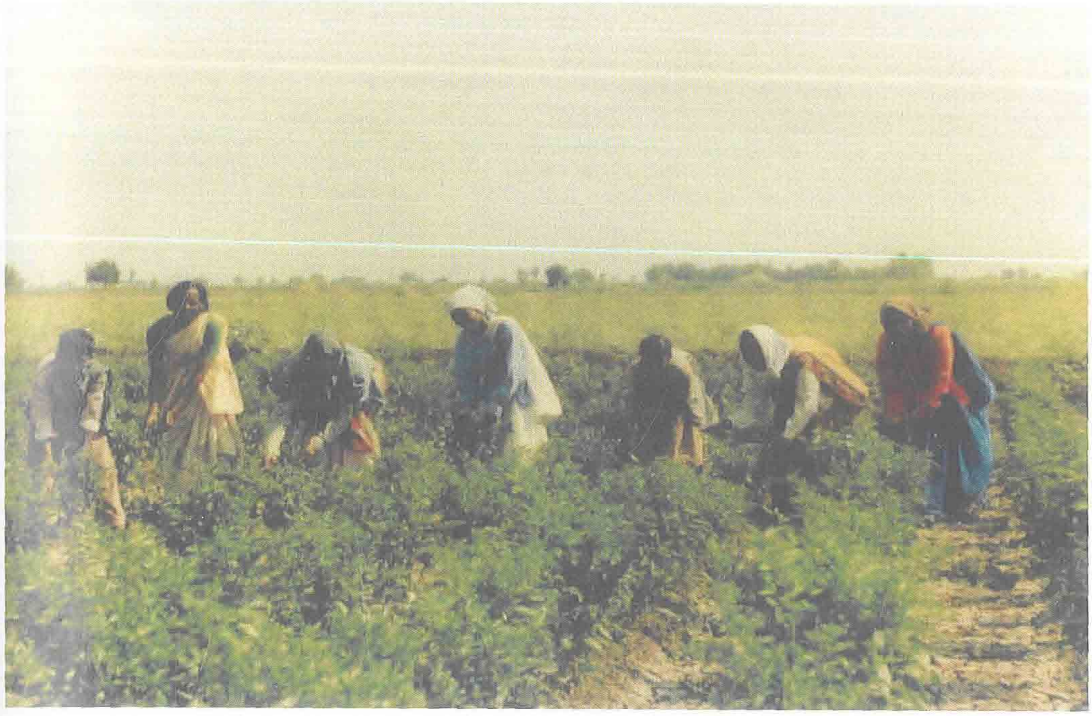


Fig 3.9 Washing clothes-a back breaking job

Fig 3.10 Cooking at smoke filled hearth

Fig 3.11 Fire wood Collection

CHAPTER IV

RESULTS

This chapter illustrates the research findings of the investigation. Keeping the objectives of the study in view, the empirical evidence obtained in terms of factual data was subjected to appropriate statistical tests. Thus the raw data obtained were coded, tabulated and analyzed through appropriate statistical procedures. The results obtained were presented objective wise under the following subheads.

4.1 Construction of role stress scale

4.2 Descriptive analysis of variables under study

- 4.2.1 Study of demographic factors of farm women
- 4.2.2 Study of personality components of farm women
- 4.2.3 Study of family processes of farm women
- 4.2.4 Study of role stress of farm women

4.3 Relationship analysis of selected characteristics and the role stress of farm women.

- 4.3.1 Relationship between demographic factors and the role stress of farm women
- 4.3.2 Relationship between personality components and the role stress of farm women
- 4.3.3 Relationship between family processes and role stress of farm women
- 4.3.4 Relationship between different subsystems of the role stress

4.4 Study of contribution of selected characteristics on the role stress of farm women

- 4.4.1 Contribution of demographic factors on the role stress of farm women
- 4.4.2 Contribution of personality components and family processes on the role stress of farm women

4.5 Effect/Impact of selected characteristics on the role stress of farm women

4.1 Construction of role stress scale

Role stress scale was developed by the investigator for the purpose of present investigation.

The role stress scale is an attitude scale developed to measure the role stress perceived by the farm women in performance of their activities in daily routine. The scale ensures an estimate of the farm women's feeling of stress encountered in performance of their roles. The role stress is measured in ten different dimensions. The scale is applicable to farm women in rural situation.

a. Collection of items / statements:

- A total of 250 statements were framed and were categorized under different areas of 10 dimensions of role stress. The statements that were framed on the basis of literature were edited to 210 statements.

b. Item Classification:

- The statements were arranged in a random sequence and presented to a group of 60 experts from various national and state departments. They were asked to check each of 210 statements carefully for the relevance.

- The judges were requested to indicate their responses for each statement ranging from highly relevant to not relevant (5 categories of responses viz. highly relevant, relevant, undecided, least relevant, not relevant).The judges were also requested to suggest changes, make modifications and to judge the accuracy of the statements.

In the light of the comments and criticism of the experts, the statements were modified and rewritten. The statements with 75 percent approval of the experts were retained. Thus out of 210 statements, 20 statements were rejected and 190 statements were subjected to item analysis.

c. Item Analysis & Item Selection:

- For the purpose of item analysis, the items were first administered to a random sample of 48 farm women in Shamshabad panchayat of Ranga Reddy district. The farm women were asked to give their spontaneous answers to each statement on 3 rating points namely Agree, Neutral, and Disagree.

- The list of items was tested on farm women and was subsequently modified in the light of responses and interviews. As the construct 'role stress' is quite used in a negative connotation by many of the researchers, the statements were constructed in a negative direction (as most of the stress inventories the statements constitute with negative meaning).
- For each item the numeral values of 3, 2 and 1 are given for the answers agree, neutral and disagree. The score for each individual on the scale was computed by summing the weights of the individual item response.
- The frequency distribution of scores based upon the responses to all the statements was obtained. There after 25 per cent of the subjects with the highest total scores and also the 25 per cent of the subjects with the lowest total scores were taken assuming that these two groups provided criterion groups.
- For evaluating the responses of the high and low groups to the individual statements, critical ratio to measure the extent to which a given statement differentiates between the high and low groups of respondents for each state was calculated.

Since `t' value is the measure of the extent to which a given statement differentiates between the high and low groups, the statements with `t' values above 1.9 were selected for the final draft to Role Stress Scale. Thus out of 190 statements retained after rating, 60 statements were rejected and 130 items were retained for the final form.

d. Final Selection of statements:

Out of 250 initial statements 130 statements were selected for the final draft of role stress scale based on the significant `t' values obtained, the feedback and recommendations of experts and the guidelines suggested by Edwards (1948). Thus finalized Role Stress Scale comprising of 130 statements was translated into regional Telugu Language.

e. Description of the area of Role Stress Inventory

As per the suggestions of experts the 130 selected items were categorized under different areas of role stress, listed as follows:

Areas of Role Stress Inventory

	Dimension	Number of Statements	Minimum score	Maximum score
a)Ecological/ Systemic Role Stress	1)Role Stress within the microsystem			
	a) Agricultural role stress	15	15	45
	b) Household role stress	15	15	45
	c) Biological role stress	15	15	45
	d) Economic role stress	10	10	30
	e) Social/recreational role stress	10	10	30
	2) Role stress with in the meso system	10	10	30
	3) Role stress with in the exo system	10	10	30
	4) Role stress with in the macro system	10	10	30
b)Conflictive Dimensions	1) Role overload.	10	10	30
	2) Role expectation conflict.	5	5	15
	3) Inter role distance.	5	5	15
	4) Role stagnation.	5	5	15
	5) Self role distance.	5	5	15
	6) Role erosion.	5	5	15

f. Scoring Pattern

Role Stress Scale is an attitude scale containing 130 items categorized into two areas each of which is further divided. The responses range from agree (3), sometimes (2) and never (1). Thus, a maximum possible score is 390 and minimum score is 130. The respondent's total score is obtained by adding the scores over all the individual items in the scale. As each area of role stress is unique and distinctive in nature, the number of items under each category varies as per need. As each area of role stress is unique and distinctive in nature, the number of items under each category varies as per need.

g. Reliability of the Scale

Reliability is the accuracy or precision of a measuring instrument. It refers to the dependability, stability, consistency, predictability and accuracy of the measuring instrument. Coefficient of stability or dependability was established for the constructed role stress scale through test – retest method. The role stress scale was administered on 30 farm women twice at an interval of fortnight. The agreement between the scores obtained from the two applications for the same scale was determined by means of correlation coefficient or

coefficient of stability. The coefficient was highly significant (r = 0.92) which testifies the reliability of the scale.

h. Validity of the Scale

The validity of the scale of a measuring instrument depends up on the fidelity with which it measures the particular item under assessment. As the content of the scale was derived from a list of statements and experts' opinions as a measure of checks, it was assumed that the scores obtained by administering the attitude scale of this study measured what was intended to measure. More over, the `t' values being significant for the statements constituting the scale explained that the statements had high discriminating values. Therefore, reasonably enough, the scale was taken as a valid measure of the desired dimension. The validity is termed as content validity as mentioned by Guilford.

4.2 Descriptive analysis of variables under study.

Table 4. 1: Study of demographic factors of farm women.

S. No.	Characteristics	Guntur District		Kurnool District		Pooled Sample	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
1.	Age						
	Young adults (18-25 years)	34	28.33	36	30.00	70	29.17
	Adults (26-35 years)	39	32.50	39	32.50	78	32.50
	Middle age (36-45 years)	47	39.17	45	37.50	92	38.33
2.	Education						
	Illiterates	36	30.00	70	58.33	106	44.16
	Literates	35	29.17	20	16.67	55	22.92
	Primary	24	20.22	19	15.84	43	17.92
	Middle School	9	7.50	10	8.33	19	7.92
	Secondary	16	13.33	1	0.83	17	7.08
3.	Caste						
	Scheduled	2	1.67	13	10.83	15	6.25
	Tribes	42	35.00	40	33.37	82	34.17
	Scheduled	28	23.33	32	26.66	60	25.00
	Castes	48	40.00	35	29.17	83	34.58
	Backward Castes						
	Other Castes						

4.	Income						
	Low (<25,000)	68	56.67	75	62.50	143	59.58
	Average (25,000-50,000)	29	24.17	23	19.17	52	21.67
	High (>50,000)	23	19.16	22	18.33	45	18.75
5.	Land Holding\ Farm Size						
	Small (5 acres & less)	72	60.00	81	67.50	153	63.75
	Medium (6 to 10 acres)	32	26.67	28	23.33	60	25.00
	Large (Above 10 acres)	16	13.33	11	9.17	27	11.25
6.	House Type						
	Kachcha	39	32.50	46	38.34	85	35.42
	Semi pucca	40	33.34	35	29.16	68	31.25
	Pucca	41	34.16	39	32.50	80	33.33
7.	Material possession						
	Low	63	52.50	84	61.66	137	57.08
	Medium	31	25.83	11	10.84	44	18.33
	High	26	21.67	25	27.50	59	24.59

8.	Socio-economic status Low Medium High	61 36 23	50.80 30.00 19.20	76 31 13	63.33 25.83 10.84	137 67 36	57.08 27.92 15.00
9.	Family Type Nuclear Joint	83 37	69.17 30.83	63 57	52.50 47.50	145 95	60.42 39.58
10.	Family Size Small (1-5 members) Medium (6-10 members) Large (Above10 members)	57 61 2	47.50 50.83 1.67	40 69 11	33.30 57.50 9.20	97 130 13	40.42 54.17 5.41
11.	Marital Status Married Divorced widowed	107 8 5	89.17 6.66 4.17	104 12 4	86.67 9.99 3.34	211 20 9	87.92 8.33 3.75

12.	Age at marriage						
	Below 18 years	83	69.17	92	76.67	175	72.92
	18 years and above	37	30.83	28	23.33	65	27.08
13.	Number of children						
	1-2 children	45	37.50	31	25.83	76	31.66
	3-4 children	68	56.67	77	64.17	145	60.42
	5 and above	7	5.83	12	10.00	19	7.92
14.	Farming experience						
	Low (5 years and above)	16	13.33	8	6.67	24	10.00
	Medium (6-10 years)	51	42.50	52	43.33	103	42.92
	High (Above 10 years)	53	44.17	60	50.00	113	47.08

A detailed description of the sample profile depicted in table 4.3 is described below.

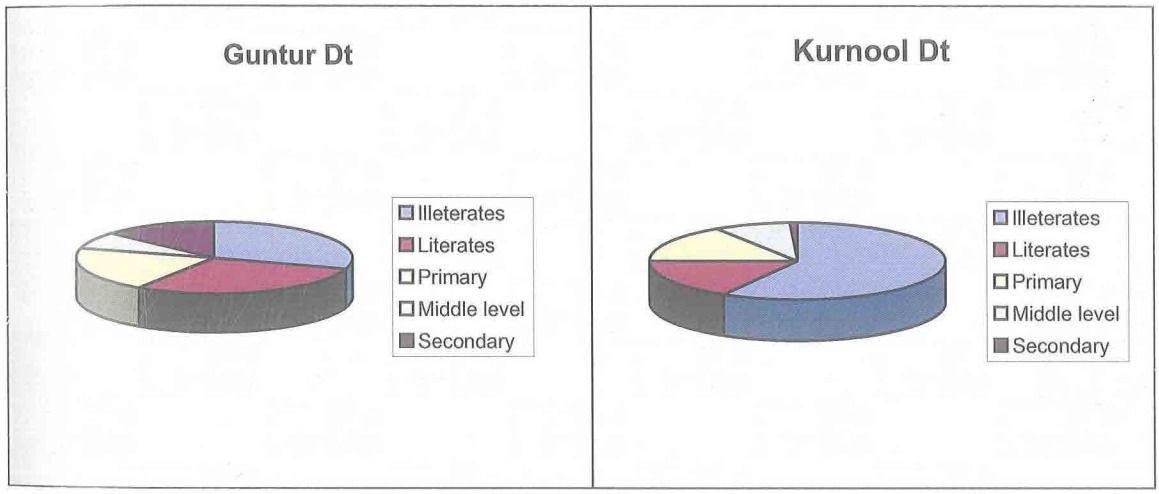
Age:

The table, 4.1 depicts that from pooled sample, a large percentage of farm women belong to middle age category (38.33%) followed by young adults (32.50%) and adults (29.17%). The district profile shows more or less similar distribution as that of pooled sample with a large percentage of farm women in the middle age category (39.17% in Guntur and 37.5% in Kurnool) followed by adulthood (28.33% in Guntur and 30% in Kurnool) and finally by young adults category (32.5% in Guntur and 32.5% in Kurnool).

Education:

With regard to the education of the sample, a large sample of 44.16 percent was illiterates followed by literates (22.92%), primary level (17.92%), middle school education (7.92%) and secondary education (7.08%) from the pooled sample. Illiteracy is predominant in Kurnool district (58.33%) than in Guntur district (30.00%). The literate population is high in Guntur (29.17%) than in Kurnool district (16.67%) followed by primary level (20% in Guntur and 15.84% in Kurnool), middle school education (7.5% in Guntur and 8.33% in Kurnool) and a small fraction of the sample were educated upto their secondary education (13.33% and 0.83% from Guntur and Kurnool districts respectively).

Figure 4.1: Education of The Farm Women

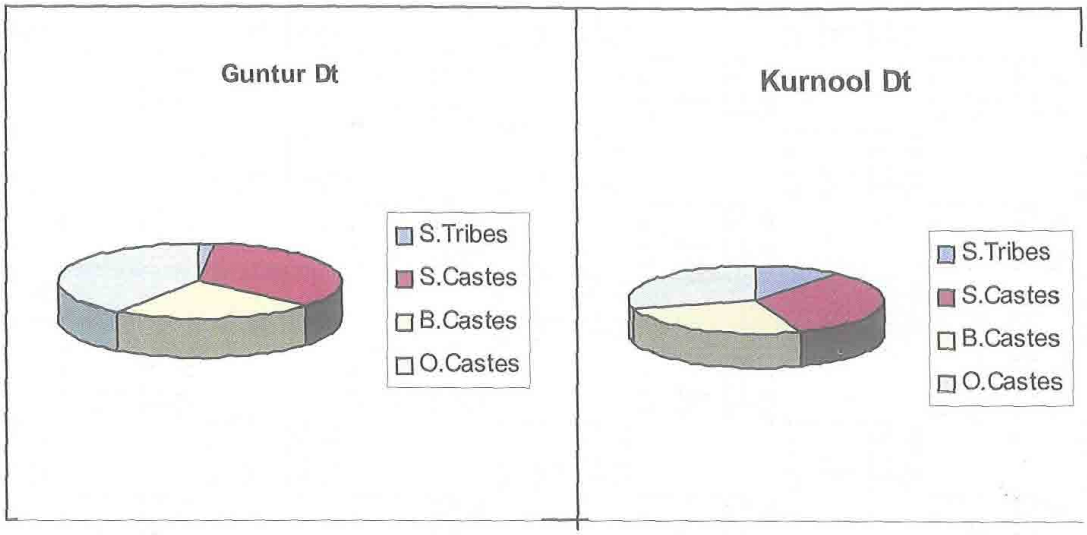


Caste:

The table depicts that quite a large number of the sample were from other castes (34.58%) followed by Scheduled Castes (34.17%), Backward Castes (25%) and Scheduled Tribes (6.25%) from the pooled sample.

The district wise distribution shows a different trend. In Guntur district, a higher proportion of the sample were from other Castes (40%) followed by Scheduled Castes (35%), Backward Castes (23.33%) and finally by Scheduled Tribes (10.83%). In Kurnool district Scheduled Caste population is high (33.37%) followed by other castes (29.17%), Backward Castes (26.66%) and scheduled Tribe Population (10.83%).

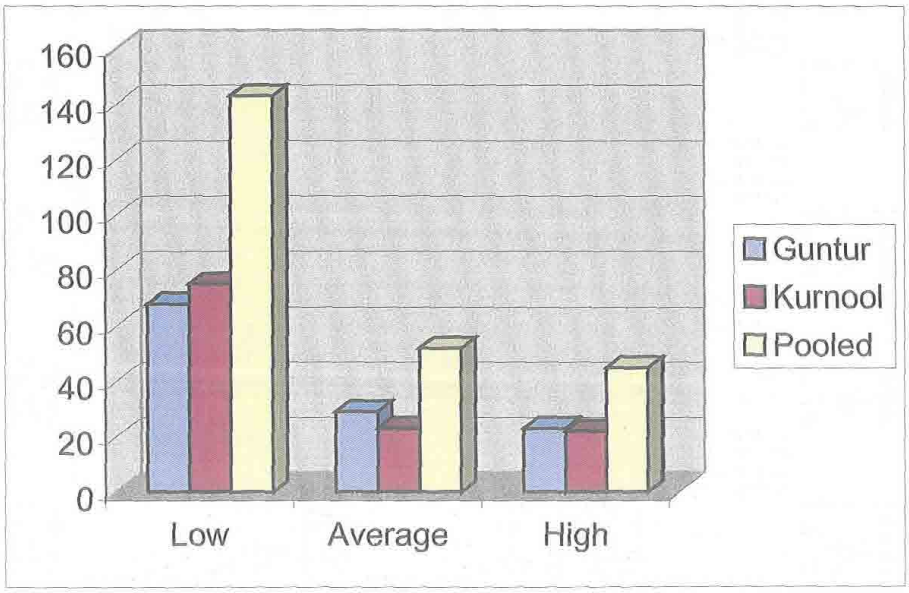
Figure 4.2: Caste wise Distribution of Farm women



Income:

The table clearly depicts that a maximum of 59.58 percent of the pooled sample were from low-income group followed by average income group (21.67%) and high-income group (18.75%). In Guntur district, 56.67 percent was from low-income group followed by average income group (24.17%) and high-income group (19.16%). The Kurnool district follows a similar trend with a high percentage of (62.50%) the respondents from low-income group followed by average income group (19.17%) and high-income group (18.33%).

Figure 4.3: Income Level of Farm Women

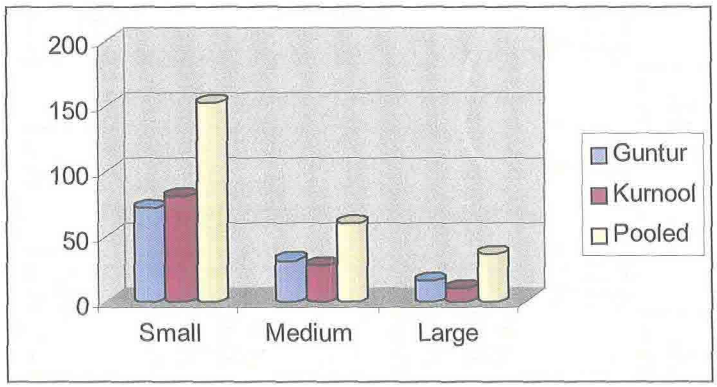


Land holding:

With regard to the land holding, a large sample was from smallholdings category (63.75%) followed by medium holdings (25%) and large holdings category (11.25%) from the pooled sample.

District wise distribution shows similar pattern with 60 percent of farm women in Guntur and 67.5 percent in Kurnool district from small holdings category. Farm women having medium holdings were slightly more in Guntur district (26.67%) than in Kurnool district (23.33%). Farm women with large holdings were slightly more in Guntur district (13.33%) than in Kurnool district.

Figure 4.4: Land holding of Farm Women



House type:

The table reveals that 35.42 percent of the respondents live in kachcha houses followed by pucca houses (33.33%) and semi pucca houses (31.25%) from the pooled sample.

34.17 percent of the respondents from Guntur district live in pucca houses followed by semi pucca houses (33.34%) and kachcha houses (32.5%). Whereas 38.34 percent of the respondents of Kurnool district live in Kachcha houses followed by pucca houses (32.5%) and semi pucca houses (29.16%).

Material Possession:

It is inferred from the table 4.1 that the material possession of the farm women was low (57.08%) followed by high (24.59%) and medium possession (18.33%) from the pooled sample.

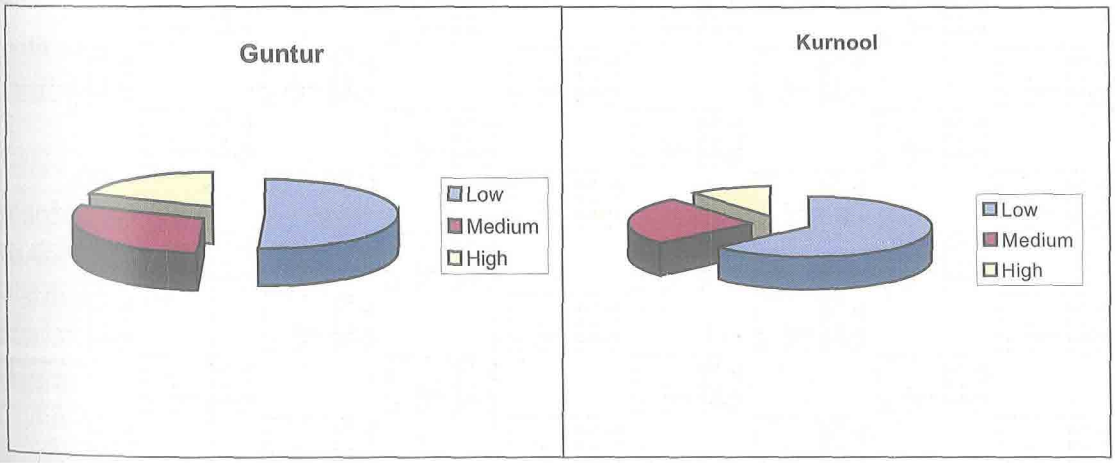
District wise distribution shows a different trend .In Guntur district, 52.5 percent of farm women had low material possession followed by medium possession (25.83%) and high material possession (21.67%). Whereas in Kurnool district, quite a high percentage of the farm women had a low material possession (61.66%) followed by high material possession (27.5%) and medium material owners (10.84%).

Socio-economic status:

It is inferred from the table 4.1 that a high percentage of 57.08 percent of farm women were from low socio-economic category followed by medium (27.92%) and high socio-economic group (15%) from the pooled sample.

The district wise distribution shows a similar trend with a large fraction of the sample from low socio-economic group (50.8% and 63.33%) followed by medium (30% and 25.83%) and high socio economic group (19.2% and 10.84%) from Guntur and Kurnool districts respectively.

Figure 4.5: Socio-Economic Status of Farm Women



Family Type:

Family Type:

With regard to the family type, quite a large percentage (60.42%) were from nuclear family while a small percentage (39.58%) were from the joint family from the pooled sample.

The district wise distribution shows a similar trend with a large fraction of the sample from nuclear family in Guntur and Kurnool districts (69.17% and 52.5%). Where as a small proportion of the sample were from joint family system (30.83% and 47.5%) in Guntur and Kurnool districts respectively.

Family Size:

The profile table 4.1 shows that more than half of the sample belongs to medium sized family (54.17%) followed by small sized family (40.42%) and large sized family (5.41%) in the pooled sample.

The district wise distribution shows that a huge part of the sample was from medium sized family (50.83% and 57.5%) followed by small sized family (1.67% and 9.2%) from Guntur and Kurnool districts respectively.

Marital Status:

The table depicts that a majority of the sample was from married category and living with their spouses (87.92%) with a small fraction of divorced (8.33%) and widowed (3.75%) farm women from the pooled sample.

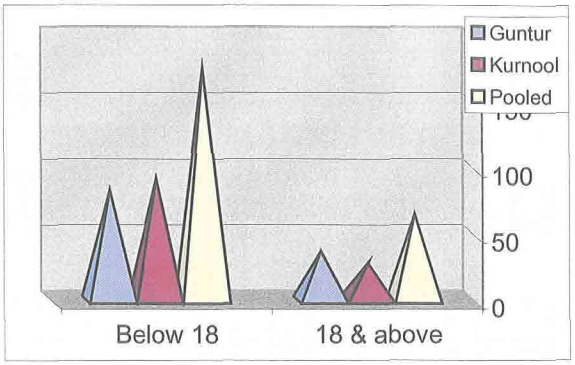
The district wise distribution shows a similar trend with a majority of the sample from married category living with their spouses (89.17%and 86.67%) followed by divorced (6.66% & 9.99%) and widowed (4.17% and 3.34%) farm women in Guntur and Kurnool districts respectively.

Age at marriage:

The pooled sample shows that a majority of 72.92 percent of farm women got married before attaining their major hood, while a small percentage (27.08%) got married after attaining their major hood.

District wise distribution shows that a major part of the sample (69.17% and 76.67%) got married before attaining their major hood. Whereas 30.83 percent from Guntur district and 23.33 percent from Kurnool district got married after attaining their major hood.

Figure 4.6: Age at Marriage of Farm Women

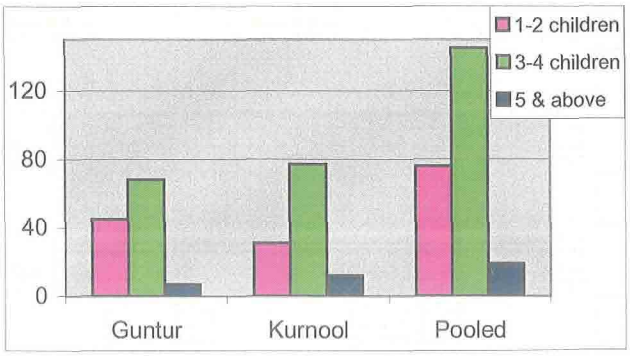


Number of children:

The pooled sample shows that a majority of 60.42 percent of the farm women had 3-4 children followed by 1-2 children (31.66%) and 5 and more (7.92%).

The district wise distribution is similar with a majority of the sample,with a high percentage having 3-4 children (56.67% and 64.17%) followed by 1-2 children (37.5% and 25.83%) and lastly the farm women having 5 and more children (5.83% and 10.0%) in Guntur and Kurnool districts respectively.

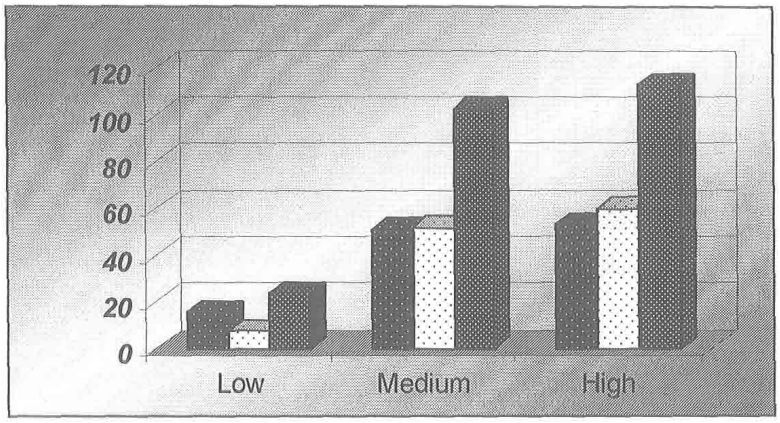
Figure 4.7: Number of Children



Farming experience:

The district wise distribution is similar with a moderate percentage of the sample from high experience group (44.17% and 50.0%) followed by the medium experience (42.5% and 43.33%) and small proportion of farm women had low experience (13.33% and 6.67%) in Guntur and Kurnool districts respectively.

Figure 4.8: Farming Experience of the sample



4.2.2 Study of personality variables of farm women

4.2.2.1 Self efficacy of farm women

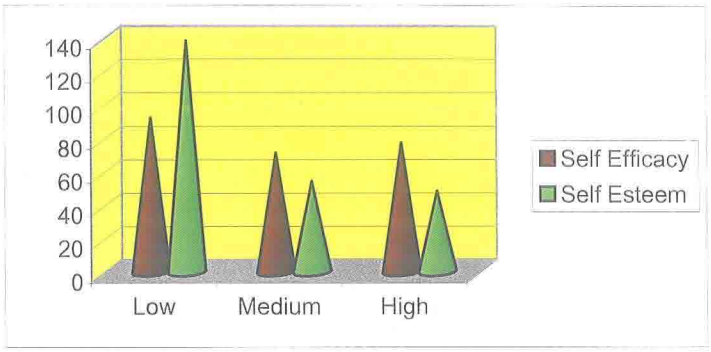
Table 4.2: Distribution of farm women based on their self efficacy.

Category	Frequency	Percentage
Low Below(Mean –SD)	92	38.33
Medium (Mean + / -SD)	71	29.58
High Above (Mean +SD)	77	32.09

Mean =16.67 SD=4.57

Table 4.2 reveals that 38.33 percent of the farm women had low self efficacy while 32.09 percent had high self efficacy and 29.58 percent had medium self efficacy.

Figure 4.9: Self Efficacy and Self Esteem of Farm Women



4.2.2.2. Self esteem of farm women

Table 4.3: Distribution of farm women based on self esteem.

Category	Frequency	Percentage
Low Below (Mean –SD)	138	57.5
Medium (Mean + / -SD)	54	22.5
High Above (Mean+SD)	48	20.0

Mean=18.34 SD=4.86

Table 4.3 shows that a high percentage of the farm women had low self esteem (57.5%) where as 22.5 percent had medium self esteem and 20.0 percent had high self esteem.

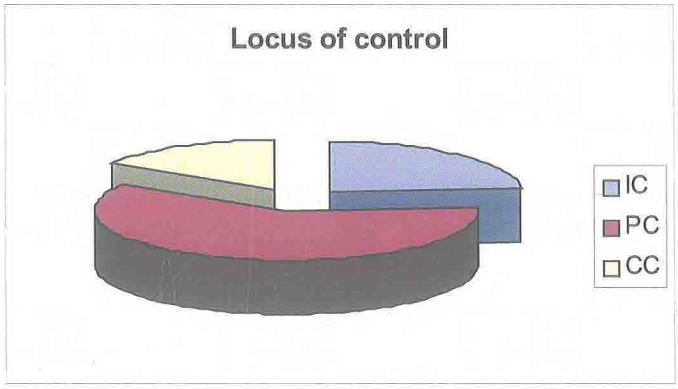
4.2.2.3 Locus of control of farm women

Table 4.4 Distribution of farm women based on their locus of control.

Category	Frequency	Percentage
Powerful Others (PC)	57	23.75
Chance Control (CC)	144	60.00
Individual Control (IC)	39	16.25

A perusal of table 4.4 indicates that a large sample of 60 percent are taking chance control, 23.75 percent are believing powerful others (PC) as their control factor, whereas 16.25 percent believe themselves as the control factors.

Figure 4.10: Locus of Control of Farm Women



From the composite picture of locus of control, it was observed that 42.5 percent had low locus of control, where as 32.39 percent had high locus of control and 24.58 percent had medium locus of control.

4.2.2.4 Gender role orientation of farm women.

Table 4.5: Distribution of farm women based on their gender role orientation.

Category	Frequency	Percentage
Feminine Traits	111	46.25
Masculine Traits	51	21.25
Androgyny	54	22.5
Un- differentiated	24	10.0

It can be inferred from the table 4.5 that a majority of 46.25 percent possessed feminine traits, 21.25 percent with masculine traits, 22.5 percent were androgynous and only 10 percent were under un differentiated category. This Table depicts that the farm women possess more feminine qualities.

4.2.2.5 Physical health of farm women

Table 4.6: Distribution of farm women based on their physical health.

Category	Dimension measured							
	Physical		Physiological		Reproductive		Overall health	
	F	%	F	%	F	%	F	%
Poor (Low) Below (Mean-SD)	140	58.33	8	3.34	180	75.0	92	38.33
Moderate Mean+/-SD	58	24.17	200	83.33	48	20.0	86	35.83
Good (High) Above (Mean+SD)	42	17.50	32	13.33	12	5.0	62	25.84
Mean SD	18.34 3.55		20.38 3.63		17.78 3.24		40.23 7.0	

A considerable sample of 58.3 percent of farm women had poor physical health, where as 24.2 percent had moderate physical health and 17.5 percent had good physical health. A

great majority of 83.3 percent of the farm women had moderate physiological health followed by 13.3 percent with good health and 3.34 percent with poor physiological health.

With regard to the reproductive health, a majority of 75 percent had poor health and where as 20 percent had moderate reproductive health and 5 percent had good reproductive health. The overall picture of health of farm women shows that 38.33 percent had poor health condition while 35.83 percent had moderate health and 25.84 percent had poor health profile.

4.2.3 Study of family process variables of farm women

4.2.3.1 Family environment of farm women

Table 4.7: Distribution of farm women based on their family environment.

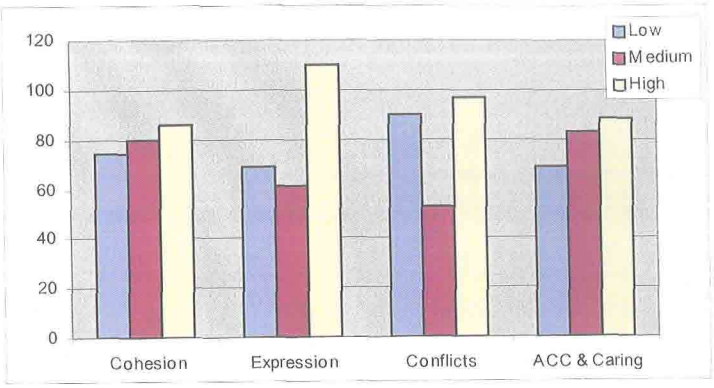
Category	Cohesion		Expression		Conflicts		Acceptance & Caring	
	F	%	F	%	F	%	F	%
Low Below(Mean-SD)	74	30.83	69	28.75	90	37.50	69	28.75
Medium Mean+/-SD	80	3.33	61	25.42	53	22.08	83	34.58
High Above(Mean+SD)	86	35.84	110	45.83	97	40.42	88	36.67
Mean SD	19.31 4.52		10.72 2.21		12.49 2.70		16.77 3.84	

Family cohesion is the degree of commitment, conviction and help received from the family. At about 35.84 percent of farm women had high family cohesion (degree of commitment, conviction and help from the family) while 33.33 percent had medium cohesion and 30.83 percent had low cohesion.

The extent to which the family members are encouraged to act openly and express their feelings is called expressiveness. In this dimension, 45.83 percent had wisdom to express their opinions while 25.42 percent had moderate freedom of expression and 28.75 percent had low freedom of expression. Amount of openly expressed aggression is classified as conflicts.

percent had low freedom of expression. Amount of openly expressed aggression is classified as conflicts. Higher conflicts were noticed among 40.42 percent of farm women while 37.5 percent had low conflicts and 22.08 percent had medium conflicts.

Figure 4.11: Family Environment of Farm Women



The extent to which the members are unconditionally accepted and the degree to which caring is expressed is called family acceptance. In case of acceptance and caring 36.67 percent received high caring from the family where as 34.58 percent received medium acceptance and caring and 28.75 percent received low caring.

4.2.3.2 Coping strategies of farm women

Table 4.8: Distribution of farm women based on their coping strategies.

Coping Type	Approach Strategy				Avoidance Strategy			
		Category	F	%		Category	F	%
Cognitive Coping	LOGICAL ANALYSIS Mean:4.08 SD:2.21	Low	142	59.17	COGNITIVE AVOIDANCE Mean :3.38 SD:2.12	Low	123	51.25
		Medium	35	14.58		Medium	80	33.33
		High	63	26.25		High	37	15.42
	POSITIVE REAPPRAISAL Mean:3.32 SD:2.21	Low	138	57.5	RESIGNATION & ACCEPTANCE Mean :4.72 SD:2.12	Low	32	13.33
		Medium	85	35.42		Medium	79	32.92
		High	17	7.08		High	129	53.75
Behavioural Coping		Category	F	%		Category	F	%
	SEEK GUIDANCE & SUPPORT Mean:5.8 SD:2.34	Low	86	35.83	SEEK ALTERNATIVE REWARDS Mean :40.08 SD:2.35	Low	20	8.33
		Medium	56	23.33		Medium	38	15.83
		High	98	40.84		High	182	75.84
	PROBLEM SOLVING Mean:3.38 SD:2.12	Low	136	56.67	EMOTIONAL DISCHARGE Mean :40.08 SD:2.35	Low	50	20.83
		Medium	80	33.33		Medium	38	36.67
		High	24	10		High	102	42.5

Table 4.8 indicates a comprehensive picture of the coping strategies adopted by farm women. Depending on the functions the coping strategies were classified under different categories and types of coping. The classification is a complex two- way method where 2X 2 combination is observed.

Approach Strategy:

Approach Strategy is a positive behavioural effort where an individual approaches different methods for handling stress. Logical analysis, positive reappraisal, seeking guidance and problem solving are the four different methods of approach strategies where the first two traits come under cognitive and the subsequent two traits are classified into behavioural coping.

The approach strategies viz., seeking guidance and support (40.84%), logical analysis (26.25%), problem solving (10%) and positive reappraisal (7.08%) were least followed by the farm women. It is disheartening to note that approach method with cognitive combination is the least method used by the farm women. The women at times of crisis were approaching guidance and support method. Whereas their logical analysis, positive reappraisal and problem solving were found very low.

Avoidance Strategy:

Avoidance Strategy is behavioural and cognitive efforts where an individual escapes from the situation for handling the stress. Cognitive avoidance, resignation and acceptance, seek alternative rewards and emotional discharge are the different methods used under avoidance. The first two strategies are classified under approach methods and the subsequent set is categorized under behavioural strategies.

It is surprising to note that the farm women were using more avoidance coping. Predominantly they were seeking alternative rewards (75.8 %) followed by resignation (53.75%) emotional discharge (42.5%) and cognitive avoidance (15.42%).

4.2.3.3 Areas of support for farm women

Table 4.9: Distribution of farm women based on social support.

Category	Support Area									
	Instrumental		Informational		Service		Socio-emotional		Total support	
	F	%	F	%	F	%	F	%	F	%
Low Below(Mean-SD)	104	43.33	119	49.58	100	41.66	67	27.91	96	40.00
Medium Mean+/-SD	39	16.25	40	16.67	70	29.17	76	31.67	59	24.58
High Above(Mean+SD)	97	40.42	81	33.75	70	29.17	97	40.42	85	35.42
Mean	12.71		12.18		12.33		13.16		50.28	
SD	3.83		3.90		3.80		3.98		13.87	

Instrumental support is the support obtained in the form of financial and materialistic things. An examination of Table 4.9 indicates that 43.33 percent of farm women received low instrumental support, 40.42 percent received high instrumental support where as only 16.25 percent of farm women received medium instrumental support.

With regard to informational support, 49.58 percent had low information, 33.75 percent had high information where as 16.67 percent had medium informational support. Among service category, a majority of 41.66 percent received low service, 29.17 percent received medium service where as 29.17 percent received high service.

Regarding socio-emotional support, a huge sample of 40.42 percent received high support, 31.67 percent received medium support, and 27.91 percent received low support. When total support areas were put together, 40 percent of farm women received low support, 35.42 percent of farm women received high support and only 24.58 percent received medium support.

4.2.4 Study of role stress of farm women .

4.2.4.1 Role stress of farm women across different sub systems.

4.2.4.2 Table 4.10: Distribution of farm women across different sub systems

Category	Micro System		Meso System		Exo System		Macro System	
	F	%	F	%	F	%	F	%
Low	78	32.50	25	10.42	70	29.17	73	30.42
Medium	73	30.42	207	86.25	73	30.42	82	34.17
High	89	37.08	8	3.33	89	37.08	85	35.42
Mean	154.94		19.55		20.06		21.34	
SD	13.11		10.17		3.51		4.22	

The Table 4.10 reveals the distribution of farm women across different sub systems. It is observed that the farm women possess stress in different layers of the ecological systems. The women had more stress in micro system followed by exo and macro systems, where as in meso system the role stress was found medium. Almost in all the systems at least one third of the sample possess high role stress except in meso system.

4.2.4.2 Study of role conflicts of farm women

Table 4.11. Distribution of farm women based on their role conflicts.

Category	Role Overload		Role expectation conflict		Inter role distance		Role stagnation		Self role distance		Role erosion		Total role conflicts	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Low	37	15.42	28	11.67	55	22.92	152	63.33	127	52.92	73	30.42	70	29.17
Medium	68	28.33	129	53.75	98	40.83	54	22.50	48	20.00	124	51.67	102	42.50
High	125	56.25	83	34.58	87	36.25	34	14.17	65	27.08	43	17.91	68	28.33
Mean SD	18.5 3.7		11.5 2.19		10.70 2.43		9.00 1.92		10.15 1.91		9.87 1.74		69.32 8.52	

Table 4.11 depicts the role conflicts of the farm women. A farm woman occupies and plays several roles. All these roles make up her role space. In the center of her role space, is the self. In performance of her roles she may have several expectations from her role. Role conflicts may arise due to the number of mutually exclusive or incompatible roles from various distances around her. The identified role conflicts in the role space of the farm woman are explained below.

The Table indicates the distribution of farm women based on their role conflicts. 56.25 percent had high role overload where as 28.33 percent had medium and 15.42 percent had low role overload. With regard to role expectation conflict, a majority of 53.75 percent had medium role expectation, 34.58 percent had high expectation conflict, and only 11.67 percent had low role expectation conflict.

In the category of inter role distance, 40.83 percent had medium role stress, 36.25 percent had high role distance and only 22.92 percent had low inter role distance. With regard to role stagnation, 63.33 percent had low stagnation, 22.5 percent had medium stagnation and 14.17 percent had high role stagnation.

In case of self-role distance, 52.92 percent had low self-role distance, 27.08 percent had high self-role distance, while 20 percent had medium self-role distance. In role erosion category, 51.67 percent had medium role erosion, 30.42 percent had low role erosion and 17.91 percent had high role erosion. In the composite picture of role conflicts, a majority of 42.5 percent had medium role conflicts, 29.17 percent had low conflicts and 28.33 percent of the farm women had higher role conflicts.

4.2.5 Comparative Study of Farm Women

In order to study the comparison between educated and uneducated sample and the cultivators and wage workers the Z test was done and the mean scores were compared in the aspects of some of the personality traits, coping aspects and the role stress components. The results are presented in the following tables.

Table 4.12: Comparison of Personality Variables of Educated and Uneducated Farm Women

Dimension	Educated Women n=79		Uneducated Women n=161		Z Value
	Mean	SD	Mean	SD	
Self Efficacy	17.52	5.67	7.5	5.45	4.43**
Self Esteem	24.23	7.79	10.6	6.78	4.92*
Locus of Control	18.52	8.69	12.5	8.09	4.24**
Androgyny	20.65	6.52	14.5	3.35	5.55**

Z test was employed to study the differences in the personality variables among the respondents. Results from the table leads to the inference that educated and uneducated respondents differed significantly with regard to self-efficacy, self-esteem, locus of control and androgyny. A glance at the respective means indicate that educated sample have significantly more mean scores in all the dimensions of personality.

Table 4.13: Comparison of Coping Strategy of Educated and Uneducated Farm Women

Dimension	Educated Women n=79		Uneducated Women n=161		Z Value
	Mean	SD	Mean	SD	
Logical Thinking	**6.50**	**3.02**	**3.50**	**1.06**	**2.33****
Positive Appraisal	**5.50**	**2.03**	**3.50**	**1.52**	**2.26****
Guidance & support	**5.50**	**2.05**	**4.50**	**2.03**	**0.07**
Problem Solving	**6.00**	**2.09**	**5.00**	**1.66**	**0.05**
Cognitive Avoidance	**3.50**	**1.56**	**4.00**	**2.03**	**0.05**
Acceptance\Registration	**3.00**	**1.04**	**5.50**	**2.02**	**1.02**
Seek Alternative Rewards	**3.00**	**1.04**	**4.50**	**1.76**	**0.09**
Emotional Discharge	**4.00**	**1.82**	**8.00**	**3.67**	**1.35**

It is interesting to note that, the coping strategies of educated women are more approachable than avoidance strategies. The positive appraisal and the logical thinking of the educated sample differed significantly with uneducated sample. Z test was employed to study

the differences in the coping strategies of the respondents. A glance at the respective means indicate that educated women had more mean scores in the aforesaid dimensions of coping strategy explaining that they had approach strategies.

Table 4.14: Comparison of Role Stress of Educated and Uneducated Farm Women

Dimension	Educated Women n=79		Uneducated Women n=161		Z Value
	Mean	SD	Mean	SD	
Micro	130.82	14.10	170.24	15.20	3.35**
Meso	18.67	9.43	23.21	10.52	1.35
Exo	18.43	3.32	21.53	3.85	2.55**
Macro	20.22	3.92	22.35	4.26	4.55**

An inspection of the table reveals that out of the four subsystems of stress the educated sample differed significantly with the uneducated sample among three subsystems i.e., micro, exo and macro subsystems. The results indicate that, among the four subsystems of ecology, three subsystems micro, exo and macro subsystems impinge significant impact due to the factor, education. A glance at the respective means indicate that the educated women had significantly lower mean scores indicating low role stress in the aforesaid three subsystems.

Table 4.15: Comparison of Personality variables of Cultivators and Wage Workers

Dimension	Cultivators n=100		Wage workers n =140		Z Value
	Mean	SD	Mean	SD	
Self Efficacy	12.52	3.67	10.35	3.45	2.24**
Self Esteem	16.23	5.79	11.45	4.78	1.92
Locus of Control	17.96	6.69	12.53	5.89	3.24**
Androgyny	17.65	6.52	13.51	5.95	3.55**

The table 4.15 indicates the inference that cultivators and labourers differed significantly with regard to self-efficacy, locus of control and androgyny. A glance at the

respective means indicate that the cultivators have high mean scores in the above said three dimensions of personality. It depicts that the cultivators have higher degree of self-efficacy, locus of control and androgyny in comparison to labourers.

Table 4.16: Comparison of Coping Strategies of cultivators and wageworkers

Dimension	Cultivators n=100		Wage Workers n=140		Z Value
	Mean	SD	Mean	SD	
Logical Thinking	5.50	1.34	5.85	1.89	0.09
Positive Appraisal	4.50	1.25	4.70	1.70	0.78
Guidance & support	7.00	2.23	5.40	1.26	2.23**
Problem Solving	5.20	1.56	5.80	1.69	0.05
Cognitive Avoidance	4.25	1.45	4.75	1.63	0.03
Acceptance\Registration	4.45	1.23	4.65	1.45	0.09
Seek Alternative Rewards	3.56	1.56	4.78	1.66	1.21
Emotional Discharge	7.00	2.67	8.50	3.56	0.93

The table 4.16 indicates that cultivators differed from labourers significantly with regard to guidance and support. A glance at the respective means indicate that cultivators had higher guidance and support services.

Table 4.17: Comparison of Role Stress Across Subsystems (Cultivators and Wage Workers)

Dimension	Cultivators n =100		Wage workers n =140		Z Value
	Mean	SD	Mean	SD	
SMIS	145.73	12.92	157.94	15.32	3.35**
SMES	18.35	9.56	19.64	10.83	2.35**
SEXS	19.15	3.24	23.35	4.31	4.55**
SMAS	20.83	4.13	26.00	5.47	5.55**

SMIS=Role stress due to micro system

SMES=Role stress due to meso system

SEXS= Role stress in Exo system

SMAS= role stress due to Macro system

An examination of the table, 4.17 reveals that the cultivators differed significantly with the labourers in all the four subsystems of role stress, Results reveal that the cultivators and labourers differed significantly with regard to the stress in micro, meso, exo and macro subsystems. A glance at the respective means indicate that cultivators have significantly less mean scores in the above stated subsystems of role stress.

4.3 Relationship analysis of selected characteristics and the role stress.

This section deals with the nature of relationship observed between demographic; personality and family processes of farmwomen and their role stress observed in agro based farming system. This section also analyses the correlation between different subsystems. This was determined with simple correlation analysis for different variables and the role stress. The findings are presented under the following subheads.

4.3.1 Relationship between selected demographic characteristics of farm women and their role stress.
4.3.2 Relationship between selected personality components of farm women and their role stress.
4.3.3 Relationship between selected family processes of farm women and their role stress.
4.3.4 Relationship between different sub systems of role stress.

To study these relationships, zero order correlation coefficients between the scores on demographic, personality and family characteristics of farmwomen and their scores on role stress were computed. The scores obtained for different subsystems were correlated. The findings are presented in the subsequent sections.

4.3.1 Relationship between selected demographic characteristics of farm women and their role stress. (The correlations were computed and tabled in table 4.18).

4.3.1.1 Age and Role stress

The correlation coefficient values between age and the different components of role stress were found to be varied among different sub-systems. The correlation between age and only the agricultural role stress was found to be significant at 1 percent level of significance (r = 0.1710). Hence there is a positive relationship between age and the agricultural role stress. As the age increases a corresponding increase in this component is noticed. As the age advances the skills may be acquired in the agro based activities and this in turn might have reduced the role stress in particular area.

In the rest of the cases, the correlation coefficients were found to be non significant with the variable, age of the farm women. Hence there is no significant relationship between age and the other components of role stress. There might be many other components apart from the age in deciding the role stress parameters of every individual in different sub systems of ecology.

Table 4.18 Correlation between demographic variables and the role stress

Variable	ARS	HRS	BRS	ERS	SRS	MIRS	MERS	EXRS	MACRS	SYRS	RCS
Age	0.1710**	0.0938	-0.0299	0.0360	0.0640	0.1079	-0.0894	0.1248	0.0484	0.0734	-0.0737
Education	-0.3308**	-0.1681**	-0.1255	-0.1560*	-0.3163**	-0.3145**	-0.0789	-0.1489*	-0.1265*	-0.2813**	-0.1342*
Caste	-0.1679**	-0.0312	-0.1190	-0.5563**	-0.2593**	-0.3062**	-0.1200	-0.3850**	-0.5539**	-0.3198**	-0.0803
Income	-0.1962**	-0.1682**	-0.1462*	-0.5568**	-0.2886**	-0.3447**	0.0910	-0.3775**	-0.4738**	-0.3444**	0.0449
Land Holding	-0.1737**	-0.0224	-0.0624	-0.5164**	-0.3102**	-0.2804**	0.1030	-0.3963**	-0.5403**	-0.4092**	-0.0072
Material Possession	-0.1506*	-0.1603*	-0.0333	-0.4614**	-0.3040**	-0.2213**	-0.1367*	-0.3244**	-0.0524	-0.1189	-0.0624
SES	-0.2239**	-0.2155**	-0.0857	-0.5492**	-0.3509**	-0.3380**	-0.1442*	-0.4052**	-0.5527**	-0.4542**	-0.0253
Family Type	0.0269	0.1266*	-0.2574**	-0.0415	-0.0364	-0.0326	-0.0312	-0.0417	-0.0549	-0.0390	0.1564*
Family size	0.0385	0.0454	-0.2423**	-0.0505	-0.1052	0.1040	0.0242	0.0782	0.0293	0.0414	0.1445*
Marital status	-0.0864	-0.1352*	-0.0438	-0.1264*	-0.1083	-0.1332*	-0.0053	-0.1434*	-0.0474	-0.1185	-0.0623
Age at marriage	-0.0443	-0.0563	-0.2484**	-0.0493	-0.0912	-0.1624*	-0.0883	-0.0534	-0.0413	-0.0735	-0.2382**
No. of young children	0.1497*	0.2824**	0.3337**	0.1184	0.1653**	0.1447*	0.0456	0.1766**	0.0804	0.1592*	0.3244**
Farming Experience	-0.1552*	0.0397	-0.0425	-0.3124**	-0.1690**	0.1589*	0.1086	-0.1261*	0.0093	0.1100	-0.0762

- * significant at 0.05% (r > 0.126)
- ** significant at 0.01% (r > 0.165)

HRS:House hold Role stress BRS:Biological Role stress ERS: Economic Role stress SRS:Social Role Stress MIRS:Micro System Role Stress
MERS:Meso System Role Stress EXRS:Exo System Role Stress MACRS: Macro System Role Stress RCS:Role Conflicts

4.3.1.2 Education and Role stress

The table 4.17 depicts that the correlation coefficients were negatively significant in areas of agricultural role stress (r = - 0.3308), household role stress (r = - 0.1631), social role stress (r = - 0.3163), micro system role stress (r = -0.3145), and the overall systemic role stress (r = - 0.2813), at 1 percent level of significance. The correlation coefficients were negatively correlated in cases of economic role stress (r = - 0.1560), exo system role stress (r = - 0.1489), macro system role stress (r = - 0.1265), and the role of conflicts (r = - 0.1342) at 5 percent level of significance. Hence there is a negative and significant relationship between education and the above said role stress areas. As the level of education increase, all the role stress dimensions were found to decrease in almost all the areas except in few cases of biological and meso system role stress. High education component increases the avenues, opportunities, capacities and capabilities of the farm woman, which reduces all the role stress components in the ecological subsystems.

In the remaining cases the biological role stress (r = - 0.1255), meso system role stress (r = - 0.0789), the education was found to be non significant which explains that the biological and meso system role stress are similar to both educated and uneducated women.

4.3.1.3 Caste and Role stress

The caste was found to have negative and significant correlation at 1 percent level of significance in the areas, agricultural role stress (r = - 0.1679), economic role stress (r = - 0.5563), social role stress (r = - 0.2593), micro system role stress (r = - 0.3062), exo system role stress (r = - 0.3850), macro system role stress (r = - 0.5539), and overall systemic role stress (r = - 0.3198). Hence, it is empirically observed that the upper class women had low role stress when compared to lower class women in the aforesaid role stress dimensions. It might be because of high adaptation in agriculture, high economic benefits, high social relationship and low culture specific problems. The labourers and wage workers are seen more in lower caste strata than in land ladies.

The correlation coefficients between caste and the components, household role stress (r = - 0.0312), biological role stress (r = - 0.1190), meso system role stress (r = - 0.1200), and the role conflicts (r = - 0.0803) were found to be non significant. Hence the results indicate that there is no significant relationship between caste and the above stated areas of the role stress.

4.3.1.4 Income and Role stress

The correlation coefficients between income and role stress were found to be negatively significant at 1 percent level in cases, agricultural role stress (r = -0.1962), household role stress (r = - 0.1632), economic role stress (r = -0.5568), social role stress (r = - 0.2886), micro system role stress (r = - 0.3447), exo system role stress (r = - 0.3775), macro system role stress (r = - 0.4738), and total systemic role stress (r = - 0.3444). The correlation coefficients values were found to be significant at 5 percent level in case of biological role stress (r = - 0.1462). Hence in all the above cases there is a negative and significant relationship between income and the role stress. As the income level increases the role stress found to decrease.

4.3.1.5 Land holding/Farm size and Role stress

The correlation coefficient values between farm size and the role stress were found to be significant at 1 percent level of significance in areas of agricultural role stress (r = - 0.1737), economic role stress (r = - 0.5164), social role stress (r = - 0.3102), micro system role stress (r = - 0.2804), exo system role stress (r = - 0.3963), macro system role stress (r = - 0.5403), and total systemic role stress (r = - 0.4092). There is a negative relationship between land holding size and the role stress indicating the change in the land holding may certainly causes a contrary change in the role stress process in different subsystems. Increased income reduces the role stress in the above areas.

In case of house hold role stress (r = - 0.0224), biological role stress (r = - 0.0624) and the role conflicts (r = - 0.0072) the correlation values with land holding size were found to be non significant.

4.3.1.6 Material Possession and Role stress

The computed correlation coefficient values of material possession with economic role stress (r = - 0.4614), social role stress (r = - 0.3040), micro system role stress(r = - 0.2213), exo system role stress (r = - 0.3244) were found to be negatively significant with material possession at 1 percent level of significance. The agricultural role stress (r = - 0.1506), household role stress (r = - 0.1603), and meso system role stress (r = - 0.1367) were found to be correlated with material possession at 5 percent level of significance. It implies that there is a significant relationship between material possession and the role stress indicating a meaningful and opposite change in the role stress. The better the material possession, the lesser the role stress of the women.

The correlation coefficients of biological role stress (r = - 0.0524), total systemic role stress (r = - 0.1189), and role conflicts (r = - 0.0624) with material possession were found to be non significant.

4.3.1.7 Socio–economic status and Role stress

It is observed that the correlation coefficients were negatively significant at 1 percent level in case of agricultural role stress (r = - 0.2239), household role stress (r = - 0.2155), economic role stress (r = - 0.5492), social role stress (r = - 0.3509), micro system role stress (r = - 0.3380), exo system role stress (r = - 0.4052), macro system role stress (r = - 0.5527), and total systemic role stress (r = - 0.4542). The correlation coefficient was found to be significant at 5 percent level in case of meso system role stress and socio-economic status (r = - 0.1442). Thus there is a negative and significant relationship between socio-economic status and the role stress dimensions of above said areas. As the socio economic status increases, there is a drastic and opposite change in all the role stress areas which is quite visible from the results. Increased SES causes a significant impact in reducing the role stress of farm women.

The biological role stress (r = - 0.0857), and the role conflicts (r = - 0.0253) were not found to be significantly related with socio-economic status.

4.3.1.8 Family Type and Role stress

Quite amazingly, the correlation coefficient between family type and biological role stress (r = - 0.2574) was negatively significant at 1 percent level. The coefficient values between family type and household role stress (r = 0.1266) and the role conflicts (r = 0.1564) were found to be positively significant at 5 percent level of significance. Hence it is inferred that, the role stress parameters in biological roles were found to be low in joint family system compared to nuclear family system. Where as in the case of joint family, the household stress and the role conflicts are higher as there is a significant positive correlation.

Agricultural role stress (r = - 0.0415), social role stress (r = - 0.0364), micro system role stress (r = - 0.0326), meso system role stress (r = - 0.0312), exo system role stress (r = - 0.0417), macro system role stress (r = - 0.0549), overall systemic role stress (r = - 0.0390) were not related significantly to family type.

4.3.1.9: Family Size and Role stress

The correlation coefficient between biological role stress and the family size was negatively significant (r = -0.2423) at 1 percent level. The correlation coefficient of role conflicts (r = 0.1445) with family size was positive and significant at 5 percent level. Hence family size has an opposite and negative relationship with biological role stress and also with role conflicts. This indicates that in bigger families the biological role stress is low.

The components agricultural role stress(r = 0.0385), house hold role stress(r = 0.0454), economic role stress (r = -0.0505), social role stress (r = -0.1052), micro system role stress (r = -0.1040), meso system role stress (r = -1.0242), exo system role stress (r = -0.0782), macro system roe stress (r = -0.0293), and the systemic role stress (r = -0.0414) were found to be non significant with the family size.

4.3.1.10: Marital Status and Role Stress

The correlation coefficients of the household role stress (r = -0.1352), economic role stress (r = -0.1264), micro system role stress (r = -0.1332) and exo system role stress (r = -0.1434) with the marital status were found to be negatively significant at 5 percent level of significance. Hence it is empirically inferred that the marital status is incongruent with the above areas indicating a negative and significant relationship. It denotes more role stress for married women than widowed and divorced women.

The other components, agricultural role stress(r = -0.0864), biological role stress (r = - 0.0438), social role stress (r = -0.1083), meso system role stress (r = -0.0053), exo system role stress (r = -0.0782), macro system roe stress (r = -0.0474), systemic role stress (r = -0.1185), and the role conflict (r = - 0.0623) were found to be not significant with marital status.

4.3.1.11 Age at marriage and Role Stress

The components biological role stress (r = - 0.2084), and the role conflicts(r = - 0.2382) were found to be negatively significant with the age at marriage at 1 percent level. The micro system role stress (r = - 0.1624) was found to be significantly related at 5 percent level of significance. Hence it denotes as the age of marriage increase there is a reduction in the above role stress areas.

The components agricultural role stress (r = - 0.0443), household role stress (r = -.0563), economic role stress (r = - 0.0493), social role stress (r = - 0.0912), meso system role stress (r = - 0.0883), exo system role stress (r = - 0.0534), macro system role stress (r = - 0.0413), overall systemic role stress (r = - 0.0735) were found to be non significant with the age at marriage.

4.3.1.12 Possession of children (0-5 years) and Role stress

The components household role stress (r = 0.2824), biological role stress (r = 0.3337), social role stress (r = 0.1653), and exo system role stress (r = 0.1766), and the role

conflicts (r = 0.3244), were found to be correlated positively with number of children at 1 percent level of significance. The agricultural role stress (r = 0.1497), micro system role stress (r = 0.1447), and the overall systemic role stress (r = 0.1592) were found to be positively significant with the number of children at 5 percent level of significance. Hence there is a positive and significant relationship between number of children and the role stress. Higher the number of children, the higher the role stress in household, biological, social, exo, and the role conflict areas. The higher number of children make demands on the mother which in turn needs the full participation and requires her time and resources causing higher role stress.

In case of economic role stress (r = 0.1184), meso role stress (r = -0.0456), macro role stress (r = 0.0804) the correlation values were found to be non significant with the variable, number of children. The higher number of children has no relation with the parameters like economic, meso and macro role stress areas.

4.3.1.13 Farming experience and Role Stress

The correlation coefficients computed between farming experience and agricultural role stress (r = -0.1552), micro system role stress (r = -0.1690), and exo system role stress (r = -0.1261), were found to be significant at 5 percent level. Hence there is a remarkable and significant relationship between farming experience and the above said role stress areas. The difference in the farming experience causes a significant opposite difference in the role stress areas of agricultural, micro and exo role stress.

The household role stress (r = 0.0397), biological role stress (r = -0.0425), meso system role stress (r = -0.1086), macro system role stress (r = 0.0093), Overall systemic role stress (r = 0.1100), and the role conflicts (r = -0.0762), were found to be non significant with the farming experience. Hence there is no significant relationship between the farming experience and the role stress areas.

4.3.2 Relationship between personality components of farm women and their role stress. (The correlations were computed and tabled in table 4.19).

4.3.2.1 Self-efficacy and Role stress

The self efficacy and the areas of role stress; agricultural role stress (r = -0.3285), household role stress(r = -0.2436), biological role stress (r = -0.2178), economic role stress (r = -0.2751), social role stress(r = -0.1988), micro system role stress(r= -0.3093), meso system role stress (r = -0.1723), exo system role stress(r= -0.3283), macro system role stress(r= -0.3379), overall systemic role stress (r= -0.1834) were found to be negatively significant at 1 percent level of significance. The correlation coefficient between self efficacy and the role

conflicts was found to be negatively significant at 5 percent level of significance (r= -0.1295). It infers that as the self-efficacy increases, the role stress reduces significantly and concomitantly.

Hence there is a negative and significant relationship between self-efficacy and the role stress of farm women in all the cases of role stress. The higher the self efficacy, the lower the role stress in the above parameters where a difference in the personal and psychological characteristics reflects a change in the role setup and role stress of an individual present in the outer most layers of the environment.

4.3.2.2 Self esteem and Role stress

The correlations between self esteem and the role stress components i.e. agricultural role stress (r= -0.2242), social role stress(r= -0.2306), exo system role stress(r= -0.3006), macro system role stress(r= -0.2779), overall systemic role stress (r= -0.2046), and the role conflicts (r= -0.1923) were found to be negatively significant at 1 percent level. The components economic role stress (r= -0.1547), and the micro system role stress(r= -0.1270) were negatively significant at 5 percent level. Hence there is a negative and significant relationship between self-esteem and the role stress of farm women indicating that higher self esteem has a dramatic impact in reducing the role stress.

The components, household role stress(r= -0.0931), biological role stress (r= -0.0874), and the meso system role stress(r= -0.0798) were found to be non significant with self-esteem.

4.3.2.2 Locus of control and Role stress

a) Locus of Control (Individual Control) and Role stress

The correlation coefficients were found to be negatively significant at 1 percent level in cases of agricultural role stress (r = -0.2458), household role stress (r = -0.2620), biological role stress(r = -0.2245), social role stress(r = -0.2275), micro system role stress(r = -0.2463), exo system role stress(r = -0.2242) and the role conflicts(r = -0.2976). Hence it is known that as the locus of control (IC) increases, the role stress gets reduced indicating an incompatible and opposite relationship.

b) Locus of control (Powerful others) and Role stress

The role stress areas namely exo system role stress (r = -0.2730) and the macro system role stress (r= -0.1955) were found to be negatively significant at 1 percent of significance with the locus of control (PC). The correlation value between economic role stress and the locus of control (r = -0.1521) was negatively significant at 5 percent level of

significance. Hence there is an inverse relationship observed between the role stress and the locus of control (PC).

The other areas of role stress namely agricultural role stress(r = -0.0952), house hold role stress(r = 0.0342), biological role stress(r = 0.0124) social role stress(r= -0.0425), micro system role stress(r=-0.0924), meso system role stress (r= -0.0434), systemic role stress(r= -0.0345) and the role conflicts(r = -0.0034), the correlation values were not found significant with the locus of control (PC).

c) Locus of Control (Chance Control) and Role stress

The role stress areas namely economic role stress (r= -0.1244), social role stress(r= -0.1473), and the exo system role stress(r = -0.1243), the correlation values were significant with the locus of control (CC) at 5 percent level of significance. Hence there is a significant relationship between role stress and locus of control (CC).

It is justified that the person having higher chance control characteristics puts everything in the hands of God, and there by feels that the social stress parameters as the simple factors (economic, social and exo role stress) causing low perception of stress.

In case of the other areas namely agricultural role stress(r= 0.0245), house hold role stress (r= -0.0347), biological role stress(r= -0.0125), micro system role stress(r= -0.0934), meso system role stress(r= -0.0235), macro system role stress (r= -0.0535), systemic role stress(r= 0.0244) and the role conflicts(r= -0.0025), the correlation values with the locus of control (CC) were found non significant.

4.3.2.4 Health and Role stress

The correlation coefficients in case of agricultural role stress(r= -0.2314), house hold role stress(r= =0.2391), micro system role stress(r= -0.2984) overall systemic role stress(r= -0.1941) and the role conflicts (r= -0.2439) were found to be negatively significant at 1 percent level depicting that the respondents with good health have low stress in the above said areas. The component economic role stress(r= -0.1261) was found to be negatively significant at 5 percent level. The good general health makes the individual stronger to balance the role stress easily in the above said areas.

Remaining components of role stress i.e. the biological role stress(r= -0.0798), social role stress(r= -0.0423), meso system role stress(r= -0.0774), exo system role stress(r= -0.0323) and the macro system role stress(r = -0.0766) were not significant. Hence there is no significant relationship between health and the above said role stress areas have been accepted.

Table 4.19 Correlation between personality variables and the role stress

S. No	Variable	ARS	HRS	BRS	ERS	SRS	MIRS	MERS	EXRS	MACRS	SYRS	RCS
1.	Self Efficacy	-0.3285**	-0.2436**	-0.2178**	-0.2751**	-0.1988**	-0.3093**	-0.1723**	-0.3283**	-0.3379**	-0.2834**	-0.1295*
2.	Self Esteem	-0.2242**	-0.0931	-0.0874	-0.1547*	-0.2306**	-0.1270*	-0.0798	-0.3006**	-0.2779**	-0.2046**	-0.1923**
3.	Locus of control(I C)	-0.2458**	-0.2620**	-0.2245**	-0.0924	-0.2275**	-0.2463**	-0.0883	-0.2242**	-0.0945	-0.1024	-0.2976**
4.	Locus of control(P C)	-0.0952	0.0342	0.0124	0.1521*	0.0425	0.0924	0.0434	0.2730**	0.1955**	0.0345	0.0034
5.	Locus of control(C C)	-0.0245	-0.0347	-0.0125	-0.1244*	-0.1473*	-0.0934	0.0235	-0.1243*	-0.0535	0.0244	-0.0025
6.	Health	-0.2314**	-0.2391**	-0.0798	-0.1261*	-0.0423	-0.2984**	-0.0774	-0.0323	-0.0766	-0.1941**	-0.2439**
7.	Femininity	0.2304**	0.2525**	0.3524**	0.0457	-0.0345	0.2014**	-0.0954	0.0424	0.3237**	0.1574*	0.1542*
8.	Masculinity	0.0943	-0.0154	-0.0525	0.2454**	0.1525*	0.0921	0.1548*	0.1713**	-0.0344	0.0943	0.0744
9.	Androgyny	-0.1502*	-0.1245*	-0.2425**	-0.1915**	-0.2454**	-0.1844**	-0.1394*	-0.2674**	-0.1634*	-0.1924**	-0.1312*

- * significant at 0.05% (r > 0.126)
- ** significant at 0.01% (r > 0.165)

HRS:House hold Role stress BRS:Biological Role stress ERS: Economic Role stress SRS:Social Role Stress MIRS:Micro System Role Stress
MERS:Meso System Role Stress EXRS:Exo System Role Stress MACRS: Macro System Role Stress RCS:Role Conflicts

4.3.2.5 Gender role orientation and Role stress

a) Femininity and Role stress

The correlation values between femininity and the components namely agricultural role stress (r = 0.2304), house hold role stress (r = 0.2525), biological role stress(r = 0.3524), micro system role stress(r = 0.2014) and the macro system role stress(r = 0.3237) were found to be positively significant at 1 percent level. In the components namely overall systemic role stress (r = 0.1574) and role conflicts (r = 0.1542), the correlation values were significant at 5 percent level of significance. The higher the femininity the higher the role stress. The cause and effect relationship of femininity and the stress parameters is observed as the readiness to take higher responsibilities increases with femininity. The femininity has association with the roles of agriculture, household, biological, micro, macro, overall stress and the role conflicts.

The components of role stress namely economic role stress (r = 0.0457), social role stress (r = -0.0345.), meso system role stress(r = -0.0954) and exo system role stress(r = 0.0424) were not found to be significant with femininity.

b) Masculinity and Role stress

The computed correlation values were found to be significant at 1 percent level in case of economic role stress(r = 0.2454), and exo system role stress (r = 0.1713). The social role stress(r = 0.1525) and meso system role stress(r = 0.1548) were found to be significant at 5 percent level. Hence in the above cases, there is a positive relationship between masculinity and the role stress. The role stress has an affirmative relationship both with the masculinity and the femininity as both the qualities in individuals increase the stress parameters. The high masculine women have higher stress in economic, exo, meso and social related roles.

In the areas namely agricultural role stress(r = 0.0943), house hold role stress(r = -0.0154), biological role stress(r = -0.0525), micro system role stress(r = 0.0921) macro system role stress (r = -0.0344), systemic role stress(r = 0.0943) and role conflicts(r = 0.0744), the correlation coefficients were found to be non significant.

c) Androgyny and Role stress

The correlation coefficient values between androgyny and biological role stress(r = -0.2435), economic role stress(r = -0.1915), social role stress(r = -0.2454), exo system role stress(r = -0.2674) and the systemic role stress(r = -0.1924) were found to be negatively significant at 1 percent level. The correlation values in the areas namely agricultural role stress(r = -0.1502), house hold role stress(r = -0.1245), micro system role stress(r = -0.1844), macro system role stress(r = -0.1634) and the role conflicts (r = -0.1312) were found to be significant at 5 percent level.

It shows that the higher androgyny reduces the role stress impact in certain variables is quite astonishing. The androgynous behaviour reduces the stress parameters of biological, economic, social, exo and the overall systemic dimensions of an individual.

4.3.3 Relationship between selected family processes of farm women and their role stress. (The correlations were computed and presented in table 4.20)

4.3.3.1 Family environment and Role stress

a) Family cohesion and Role stress

The correlation coefficient values between family cohesion and the role stress was found to be significant at 1 percent level of significance in the areas household role stress(r = -0.1934), biological role stress (r = -0.2694), micro system role stress(r = -0.3196), exo system role system (r = -0.2247) and the systemic role stress(r = -0.2407). The areas agricultural role stress (r =0.1294) and the social role stress r = -0.2625) were found to be negatively significant at 5 percent level with the variable family cohesion. It is inferred that there is negative correlation explaining that as the family cohesion increases the role stress found to be decreased in the aforesaid areas. If the family cohesive bond is strong and close the empathy, sharing, support from the micro system may be high which in turn cause logical effect in the above said areas.

The areas economic role stress(r = -0.1225), meso system role stress (r = -0.1257) macro system role stress(r = -0.1245) and the role conflicts (r = -0.0093) were found to be non significant with family cohesion. Hence, there is no significant relationship in these areas.

b) Family expressiveness and Role stress

The role stress was found to be negatively significant at 1 percent level of significance in the areas namely agricultural role stress(r = -0.2935), household role stress(r = -0.2297), biological role stress (r = -0.2247), social system role stress(r = -0.1924), micro system role stress (r = -0.2295), exo system role system(r = -0.2293) and the overall systemic role stress(r = -0.2124). The correlation coefficient values were negatively significant at 5 percent in the areas meso system role stress (r = -0.1388), and the role conflicts (r = -0.1267). The expressive factor increases the freedom of communication within and outside the family, which decreases the stress in many of the stress components.

The areas of the role stress, economic role stress(r = -0.1122), macro system role stress (r = -0.0924) were found to be non significant with role stress.

c) Family conflict and Role stress

The correlation coefficient between meso system role stress and family conflict was found to be negatively significant (r = 0.1347) at 5 percent level of significance, hence there is a significant relationship between family conflicts and the role stress areas of meso system. Higher the family conflicts, the higher the individual role stress in meso system as the individual suffers more in maintenance of role relations due to the family conflicts.

The correlation values between the family conflict and the other areas, agricultural role stress (r = -0.1098), house hold role stress (r = -0.0034), biological role stress(r = -0.0094), economic role stress(r = -0.0197), social role stress(r = -0.0943), micro system role stress(r = -0.1064), exo system role stress(r = -0.1237), macro system role stress(r = -0.0094), systemic role stress (r = -0.0358), and the role conflicts (r = 0.1214) were not significant, hence there is no significant relationship between the family conflict and the above said role stress areas.

d) Family Acceptance & Caring and Role stress

The correlations between the family acceptance and the role stress areas were found to be negatively significant at 1 percent level in the areas, agricultural role stress (r = -0.2124) and the micro system role stress(r = -0.2183). The other areas, biological role stress (r = -0.1644), social role stress (r = -0.1592), exo system role stress(r = -0.1657) and the role conflicts (r = -0.1593) were significant at 5 percent level of significance. Hence there is a negative and significant correlation between them. When the family care is high, the individual gets lot of strength and support from the family, which in turn helps to reduce the role stress of the individual.

The correlation values of house hold role stress(r = 0.1227), economic role stress(r = -0.0107), meso system role stress(r = -0.1244), macro system role stress (r = -0.1204), and the overall systemic role stress (r = -0.0824) were found to be non significant with the variable, acceptance and caring of the family.

e) Total family environment and Role stress

The computed correlations were found to be negatively significant at 1 percent level in the areas, agricultural role stress (r = -0.2524) and the biological role stress (r = -0.2454), social role stress (r = -0.1737), micro system role stress(r = -0.2045), exo system role stress(r = -0.2123). The correlation values were found to be negatively significant between the family environment and the overall systemic role stress(r = -0.1557) at 5 percent level of significance. Hence when all the relationship dimensions of the total family environment are high, it has a bearing effect on the role stress of the individual.

Table 4.20 Correlation between family process variables and the role stress

Variable	ARS	HRS	BRS	ERS	SRS	MIRS	MERS	EXRS	MACRS	SYRS	RCS
Family Environment											
Cohesion	-0.1294*	-0.1934**	-0.2694**	-0.1225	-0.2625**	-0.3196**	-0.1257	-0.2247**	-0.1245	-0.2407**	-0.0093
Expressiveness	-0.2935**	-0.2297**	-0.2247**	-0.1122	-0.1924**	-0.2295**	-0.1388*	-0.2293**	-0.0924	-0.2124**	-0.1267*
Conflict	-0.1098	-0.0034	-0.0094	-0.0197	-0.0943	-0.1064	0.1347*	-0.1237	-0.0094	-0.0358	-0.1214
Acceptance & Caring	-0.2124**	0.1227	-0.1644*	-0.0107	-0.1592*	-0.2183**	-0.1244	-0.1657**	-0.1204	-0.0824	-0.1593*
Total family Environment	-0.2524**	-0.1097	-0.2454**	-0.0215	-0.1737**	-0.2045**	-0.1224	-0.2123**	-0.0423	-0.1557*	-0.0954
Coping											
Coping (Approach)	-0.4510**	-0.4378**	-0.1745**	-0.1249	-0.1512*	-0.4441**	-0.0928	-0.2401**	-0.2021*	-0.3262**	-0.1663*
Coping (Avoidance)	-0.0340	-0.0450	-0.1350*	-0.0238	-0.1235*	0.1047	-0.0352	-0.1353*	-0.2252**	-0.0352	-0.0542
Support	-0.4425**	-0.2522**	-0.2111**	-0.2084**	-0.1545*	-0.3114**	-0.1946**	-0.3383**	-0.2275**	-0.3422**	-0.2146**

- * significant at 0.05% ($r > 0.126$)
- ** significant at 0.01% ($r > 0.165$)

HRS:House hold Role stress BRS:Biological Role stress ERS: Economic Role stress SRS:Social Role Stress MIRS:Micro System Role Stress
MERS:Meso System Role Stress EXRS:Exo System Role Stress MACRS: Macro System Role Stress RCS:Role Conflicts

Other areas of role stress namely household role stress (r = -0.1017), economic role stress (r = -0.0215), meso system role stress(r = -0.1224), macro system role stress(r = -0.0423), and the role conflicts(r = -0.0954) were found to be not significant with the family environment.

4.3.3.2. Coping and Role stress

a) Coping (approach) and Role stress

The computed correlations were found to be negatively significant at 1 percent level in the areas, agricultural role stress (r = -0.4510), household role stress(r = -0.4378), biological role stress (r = -0.1745), micro system role stress (r = -0.4441), exo system role stress(r = -0.2401) and the overall systemic role stress (r = -0.3262). The correlation values between the coping and the areas namely social role stress(r = -0.1512), macro system role stress(r = -0.2021), and the role conflicts (r = -0.1663) were found to be negatively significant at 5 percent level. Hence in all the above cases of role stress, coping (app) is indicating a high correlation with many of the role stress variables. The coping improves the psychological strength to tolerate the stress present in the micro system, which in turn influences the other forms of stress present in the outer layers by transmission effect.

The correlations between coping and the components namely economic role stress (r = -0.1249), meso system role stress(r = -0.0928) were found to be non significant in these areas.

b) Coping (avoidance) and Role stress

The computed correlation coefficient values were found to be negatively significant at 1 percent level significance in the areas namely exo system role stress (r = -0.1353) and the macro system role stress(r = -0.2252) with the coping (avoidance). The areas biological role stress(r = -0.1350) and the social role stress (r = -0.1235) were found to be negatively correlated with the coping (avoidance) at 5 percent level of significance. Hence in the above areas of role stress, irrespective of the coping style the individual is relieved of from the stress pain. The biological, social, exo and macro systems role stress, whatever the coping strategy may be, it influences in reducing the role stress.

The areas agricultural role stress(r = -0.0340), house hold role stress (r = -0.0450), economic role stress(r = -0.0238), micro system role stress(r = 0.1047) meso system role stress(r = -0.0352), systemic role stress(r = -0.0352), and the role conflicts (r = -0.0542) were found to be non significant with the coping avoidance. Hence, there is no significant relationship between role stress and coping (avoidance) in the aforesaid areas.

From the result, it was noticed that both the avoidance and approach strategies were correlated with the role stress. The role stress gets reduced whatever the coping strategy may be.

4.3.3.7: Support and Role stress

The correlation values were found to be negatively significant at 1 percent level in cases of agricultural role stress(r = -0.4425), house hold role stress (r = -0.2522), biological role stress(r = -0.2111), economic role stress(r = -0.2084), micro system role stress(r = -0.3114), exo system role stress (r = -0.3383), macro system role stress(r = -0.2275), systemic role stress(r = -0.3422), and the role conflicts(r = -0.2146). The correlation values were found to be negatively significant at 5 percent level in the areas, social role stress(r = -0.1545), and the meso system role stress (r = -0.1946). Hence, the support is playing a major role in reducing the role stress in all the systems and is affecting all the sub systems of the role stress.

4.3.4: Relationship between different sub systems of role stress

To derive the empirical relationship between the ecological subsystems in terms of role stress, the data was subjected for correlational analysis for deriving meaningful relation.

Table 4.21: Correlation between different sub systems of role stress

	Microsystem Role stress	Mesosystem Role stress	Exosystem Role stress	Macrosystem Role stress	Overallsystems Role stress
Microsystem Role stress	1.0000				
Meso system Role stress	0.2666**	1.0000			
Exo system Role stress	0.4845**	0.1265*	1.0000		
Macro system Role stress	0.3604**	0.1124	0.5824**	1.0000	
Overall systems Role stress	0.6413**	0.2103**	0.5582**	0.5204**	1.0000

The table 4.19 reveals that inter correlations exist between different sub systems and also between sub systems and the overall systemic role stress.

4.3.4.1 Micro system and other sub systems

The computed correlation coefficients of role stress between micro system and all the other sub systems of role stress were found positively significant at 1 percent level of significance. The correlation coefficient between micro system and the total systems was high(r = 0.6413) followed by micro and exo systems(r = 0.4845), micro and macro systems(r = 0.3604) and the micro and meso system(r = 0.2666). Hence there is a positive and significant relationship between the micro system and the other sub systems of role stress. It indicates that any change in the role stress of other systems may have a relative and significant change in the role stress of micro system.

4.3.4.2 Meso system and other sub systems:

The correlation coefficient values of role stress between meso system and micro system was high (r = 0.2666) followed by meso and total systemic stress (r = 0.2103) these sub systems were found to be positively significant at 1 percent level of significance. The correlation between meso and exo systems was (r = 0.1265) significant at 5 percent level; hence there is a significant relationship between meso system and the other sub systems. It indicates that any change of stress in the other systems may cause a substantial and significant change in the meso system role stress.

The correlation value of role stress between meso and macro systems was (r = 0.0924) not found significant; hence there is no significant relationship between meso system and the role stress of macro system. As the role stress in the macro system increases, there may not be considerable change in the meso system.

4.3.4.3 Exo system and other sub systems

The computed correlation coefficient values of role stress between exo and macro system was high (r = 0.5824) followed by exo and total systems(r = 0.5582), exo and micro systems(r = 0.4845) which were found to be significant at 1 percent level of significance. The computed correlation values of role stress between exo and meso system was(r = 0.1245) significant at 5 percent level of significance. There is a positive, notable and significant relationship between exo system and the other sub systems.

It infers that as the stress increases in the aforesaid systems, there may be a considerable change in the exo system role stress.

4.3.4.4 Macro system and other sub systems

The computed correlation values of role stress between macro system and the exo system (r = 0.5824), macro and total systems(r = 0.5204), macro and micro system (r = 0.3604) were found to be significant at 1 percent level of significance. A positive, remarkable and significant relationship between exo system and the other sub systems is depicted. It indicates that any change in any of the other systems may have a significant and notable change in the macro system.

The correlation value between macro system and the meso system was (r = 0.1124) not found to be significant. Hence there is no significant relationship between macro system and the meso system indicating lack of concurrence.

4.3.4.5 Overall systemic role stress and the sub systems

The computed correlation values between total systemic role stress and all the other sub systems were found to be significant at 1 percent level of significance. The correlation coefficient between over all systemic role stress and the micro system was found high (r = 0.6413) followed by systemic stress and exo systems (r = 0.5582) overall systems and macro system(r = 0.5204), and finally over all systems and meso system(r = 0.2103). Hence there is a positive and significant relationship between total systemic role stress and the other sub systems. It indicates that any change in the other systems may have a significant change in the total role stress caused.

4.4 Study of contribution of selected characteristics on the role stress of farm women

To know the interaction and intensity of the relationship between different characteristics and the role stress, the multiple regression analysis was carried out. As the simple correlation merely portrays coexistence between two variables and can not explain the contribution of independent variables on the dependent variable, the multiple regression analysis was done to know the contribution of different independent variables on the role stress, the step down multiple regression analysis was followed in order to strengthen the claim of correlation, the analyses have been carried out separately for all the sub systems, overall systemic role stress and the role conflicts.

4.4.1 Contribution of demographic factors on the role stress of farm women

4.4.1.1 Multiple regression analysis of demographic variables on the role stress of farm women

Null Hypothesis: The additional sum of squares for regression added by the demographic variables X1 to X 13 will be zero in micro, meso, exo and macro sub systems, overall systemic stress and the role conflicts of farm women.

Empirical Hypothesis : The scores on 13 independent variables will explain a significant amount of variation in role stress scores of farm women in micro, meso, exo, macro, overall systemic stress and the role conflicts.

Micro system:

The results of the multiple regression analysis in table 4.22 for the prediction of demographic variables that contribute for variation in the amount of role stress of farm women in micro system indicates that the variables, education (X2), income (X4) and the (X7) socio-economic status were found to have significant and negative regression coefficients ($p<0.01$). The other variables did not significantly contribute for the role stress. Further, all the demographic variables together did explain about a substantial percent (50%) of variation in the role stress of farm women in micro system .The variance ratio, R^2 was found to be significant.

Meso system:

The result of the multiple regression analysis in meso system indicates that except SES, none of the variables were significant. Further all the demographic variables did explain only 4.03% of the variation in the meso system role stress of farm women. Variance ratio for R^2 was found significant.

Exo system:

The results of the multiples regression analysis (table 4.22) denotes the prediction of demographic variables that contribute for variation in the extent of role stress of farm women in exo system indicates that the variables education (X2), caste (X3), and socio economic status ((X7) were found to have significant and negative regression coefficients ($p<0.05$) and the other variables did not significantly contribute to the role stress, further all the variables did explain about a considerable variation of 52.62% in the role stress of farm women in exo system, variance ratio for R^2 was found to be significant.

Macro system:

The table 4.22 reveals that the variables namely education (X2), caste (X3) and the socio-economic status (X7) were found to have significant regression coefficients ($p<0.01$) in negative direction. The value of coefficient of determination, R^2 was 0.4172.

The variance ratio of R^2 was found to be significant. Thus the variation of 42% was explained by all the 13 demographic variables under study.

Overall Systemic role stress:

In over all systemic role stress the variables namely the education, caste, Income and the SES were found to have significant regression coefficients ($p<0.05$) in the negative direction, the value of R^2 was 0.37 which denotes that 37% of the variation was explained by all the 13 demographic variables under study. The F value of R^2 was found to be significant.

Role conflicts:

The table 4.23 reveals that the variables, education and the number of children were found to have significant regression coefficients, education was found to have negative regression coefficient ($p<0.01$) while number of children was found to have positive regression coefficient ($p<0.05$) all the demographic variables together were found to explain 12% of variation of the role conflicts of farm women, the F ratio of R^2 was found to be significant.

Table 4.22: Multiple regression analysis of demographic variables on different subsystems of role stress

S.No	Independent variable	Micro system		Meso system		Exo system		Macro system		Systemic role stress		Role conflicts	
		b value	T value	b value	t value	b value	t value	b value	t value	b value	t value	b value	t value
X1	Age	0.2440	1.219	-0.0356	-0.206	0.0139	0.260	0.1107	1.680	0.4044	0.384	-1.2589	-0.909
X2	Education	-1.7540	-3.423**	-0.2826	-0.310	-0.2371	-2.838	-0.9271	-3.141**	-2.4204	-1.987*	-0.8562	-1.984
X3	Caste	-0.9943	-0.663	-0.4172	-0.322	-0.4778	-2.969*	0.4571	-1.976*	-2.3466	-1.994*	-0.0413	-0.012
X4	Income	-2.3234	-3.316**	0.0304	0.735	-1.0115	-0.896	-0.0138	-1.035	-2.0783	-1.036*	-0.3200	-0.354
X5	Land Holding	-1.3503	-1.264	0.0638	0.069	-0.0279	-0.098	-0.4366	-1.462	-1.8788	-1.517	-0.1843	-0.154
X6	Material Possession	-1.7540	-1.360	-0.1597	-0.148	-0.3313	-0.990	-1.0662	-1.624	1.8214	0.456	-0.2453	-0.135
X7	SES	-1.0627	-3.655**	-0.2682	-0.396	-0.1980	-3.983*	-0.8013	-3.658**	-2.3044	-1.987*	-0.5725	-0.428
X8	Family type	-0.3313	-0.527	-0.9513	-0.436	-0.2206	-0.326	-0.4833	-0.685	-2.1341	-1.032	1.2826	1.843
X9	Family size	0.2461	0.444	0.0153	0.032	0.1622	1.092	0.0881	0.569	0.4771	0.873	0.1479	0.640
X10	Marital status	-1.7796	-1.317	0.8242	0.333	-1.4280	-1.858	-1.0459	-1.305	-1.8898	-0.623	-0.2925	-0.703
X11	Age at marriage	-0.9037	-1.733	-0.3858	-0.856	0.1953	1.398	0.3500	1.745	1.0632	0.245	-0.0845	-1.036
X12	No. of children	0.5487	0.481	-0.7476	-0.758	0.1642	0.537	-0.1690	-0.530	-0.2037	-0.113	1.3432	1.974*
X13	Farming experience	-0.4417	-1.841	0.2846	0.777	0.0656	0.577	-0.1297	-1.094	-2.0348	-1.634	-0.4254	-0.153
Percent variation		**R^2 = 0.5059 F = 5.0745***		**R^2 = 0.0403 F = 0.7303 NS**		**R^2 = 0.5262 F = 5.0819***		**R^2 = 0.4172 F = 12.4482***		**R^2 = 0.3704 F = 6.4450***		**R^2 = 0.1260 F = 1.6523***	

Based on the R^2 variance ratio (F value), the null hypothesis was rejected in micro, exo, macro, over all systems and the role conflicts indicating that the 13 demographic variables would explain a significant amount of variation in the role stress of the above sub-systems. The null hypothesis was accepted in meso system indicating that the 13 demographic variables did not contribute towards significant variation in meso system.

4.4.1.2 Prediction of demographic variables contributed for maximum variation in the role stress

In order to delineate the least significant variables and to identify the most significant variables which have maximum contribution towards role stress, step down regression analysis was carried out.

Null Hypothesis: The few variables which contributed maximum extent towards variation in the role stress cannot be delineated from the rest of the variables which have negligible contribution towards the variation in the role stress of farm women in 6 areas (micro, meso, exo, macro, over all systems and role conflicts) at a particular step in step down regression analysis.

Empirical Hypothesis : The scores of few variables, which contributed for maximum extent for variation in the stress, could be delineated from the scores on the rest of the variables, which have negligible contribution for variation in the role stress of farm women in 6 areas at a particular step in the step down regression analysis.

a) Micro System

Table 4.23 shows the results of the step down regression analysis at the last step predicting the most influential variables contributing for maximum amount of variation in the role stress of micro system. It could be observed from the table that in micro system, there were five variables viz. X2-Education, X4-Income, X5-Land holding, X7-SES, X13-Farming experience which explained about 48.18% variation in the role stress. The F calculated value was found to be significant ($p<0.01$). All the variables contributed for variation in a negative direction.

b) Meso system

The scrutiny of result of the table 4.23 in meso system explains that only one variable i.e. X7-Socio– economic status that contributes 2.08% of variation of the role stress in a negative direction. The variance ratio was found to be significant. The 't' value was significant at the final step.

c)Exo System

The results of the table 4.23 show that four variables viz. X3- Caste, X7-SES, X9- Family size and X10- marital Status contributed for 50.17% of variation in the role stress of exo system. The 't' values of caste and SES were significant in a negative direction ($p< 0.01$). The family size was contributing positively towards role stress ($p< 0.05$) and the marital status was contributing negatively towards the role stress.

d) Macro System

The table 4.23 depicts the most influential variables, which contributed 40.26% of variation of the role stress. All these variables contributed in a negative direction and the 't' values were found significant ($p<0.01$). The variables found at the last step were X2-Education, X3-Caste, X5-Land holding, X7-SES and X8-Family type.

e) Over all Systems

The table reveals that in over all systemic picture, the variables X2-Education, X3-Caste, X5-Land holding and X7-SES were found to influence the role stress in negative direction in the last step of analysis. The 't' values of X2-Education, X3-Caste, and X7-SES were found to be significant at 1 percent level. The 't' value of Land holding was significant at 5 percent level of significance. The variance ratio of R^2 was found to be significant. The total variation caused due to the above variables was 24.95 percent.

f) Role Conflicts

The variables X2-Education, X8-Family type, X11-Age at marriage, and X12-Number of children were found to influence the role conflicts in a negative direction with 11.68% of variation. The variance ratio of R^2 was significant. The 't' values of X2-Education, X8-Family type and X12-Number of children were significant at 1 percent level of significance. The 't' value of X11-Age at marriage was significant at 5 percent level of significance. Hence the null hypothesis was rejected in all the cases of role stress sub systems indicating that the few variables have contributed for maximum extent of variation in the role stress, which can be delineated from the rest of the variables in all the above said areas.

Table 4.23: Step down multiple regression analysis at last step for predicting the contribution of demographic variables on the role stress.

	Independent variable	b value	t value		Independent variable	B value	t value
MICRO SYSTEM				**MACRO SYSTEM**			
X2	Education	-2.4396	-3.001	X2	Education	-1.0085	-4.053
X4	Income	-2.6695	-4.412	X3	Caste	-0.8841	-5.696
X5	Land Holding	-2.3503	-3.021	X 5	Land Holding	-0.5507	-2.047
X7	SES	-3.6295	-3.213	X7	SES	-1.2388	-4.012
X13	F. Experience	-0.9123	-2.034	X8	Family Type	-0.5507	-2.047
$R^2 = 0.4818$		F = 11.8321*		$R^2 = 0.4026$		F = 26.1984*	
MESO SYSTEM				**OVER ALL SYSTEMS**			
X7	SES	-0.4123	-2.249	X2	Education	-2.8405	-2.357
				X3	Caste	-2.9237	-2.435
				X5	Land Holding	-0.8435	-1.954
				X7	SES	-1.2435	-3.932
$R^2 = 0.0208$		F = 5.0558*		$R^2 = 0.2495$		F = 19.5360*	
EXO SYSTEM				**ROLE CONFLICTS**			
X3	Caste	-1.146	2.342	X2	Education	-1.023	-2.245
X7	SES	-1.4323	-2.156	X8	Family type	-1.3436	2.042
X9	Family Size	0.7044	1.978	X11	Age at marriage	-0.1235	-1948
X10	Martial Status	-1.8452	-1.962	X12	No Of Children	1.1424	-2.352
$R^2 = 0.4017$		F = 14.8471*		$R^2 = 11.68$		F = 2.2432*	

4.4.2 Contribution of personality and family related variables on the role stress of farm women

4.4.2.1 Multiple regression analysis of personality and family related variables on the role stress of farm women. (The multiple regression analysis was presented in the table 4. 25)

Null Hypothesis : The additional sum of squares for regression added by the independent variables X1 to X16 will be zero in micro , meso , exo ,macro sub systems , over all systemic stress and the role conflicts of farm women.

Empirical Hypothesis: The scores on 16 independent variables from X1 to X16 will explain a significant amount of variation in the role stress scores of farm women in micro, meso, exo, macro sub systems, over all systemic stress and the role conflicts.

Micro system :

The results of the multiple regression analysis in Table 4.24 for the prediction of 16 independent variables (Personality and family related) that contribute for variation in the extent of role stress of farm women in micro system indicates that the variables, coping and support were found to have significant and negative regression coefficients ($p<0.01$), where as the self efficacy was found to have significant and negative regression coefficient ($p<0.05$). The other variables were not significantly related to the role stress. Further all the independent variables (personality and family related) did explain 57.79 percent of variation in the role stress of farm women in micro system. Variance ratio, R^2 was found to be significant.

Meso system :

The results of the Table 4.24reveals that the regression coefficients of none of the variables were found to be significant .All the independent variables (personality and family related) did explain 27.78 percent of the variation in the meso system role stress of farm women .Variance ratio of R^2 was found to be significant.

Exo system :

The results of the table indicate that the variables coping and support were found to have significant and negative regression coefficients ($p<0.01$). The variable, self efficacy was found to have significant regression coefficient ($p<0.05$). Further all the independent variables (personality and family related) together explained about 22.20 percent of variation in the exo system role stress of farm women .R^2 variance ratio (F value) was found to be significant.

Macro system :

The results of the multiple regression analysis reveals the prediction of independent variables (personality and family related) that contribute for variation in the macro system role stress indicates that the variables, self efficacy, self esteem, coping and support were found to have negative and significant regression coefficients ($p<0.01$). The other variables were not significant for the role stress of macro system. All the independent variables together explain about 20.76 percent of variation in the role stress of macro system . The variance ratio of R^2 was found to be significant.

Systemic role stress :

The results of the table portrays that the variables self-efficacy and coping were found to have negative and significant regression coefficients ($p<0.01$). Where as the support was found to have negative regression coefficient ($p<0.05$). The other independent variables were not found to have significant regression coefficients. Further all the independent variables (personality and family related) did explain about 32.85 percent of variation in the systemic role stress of farm women .The variance ratio of R^2 was found to be significant.

Role conflicts:

The results of the multiple regression analysis of table 4.24 indicates that the variables self efficacy and the coping were found to have negative and significant regression coefficients ($p<0.01$) .The conflict was found to have positive and significant regression coefficient ($p<0.05$) . Health was found to have negative and significant regression coefficient ($p<0.05$). Other variables did not contribute significantly for the role conflicts. All the independent variables (personality and family related) did explain only 15.78 percent of variation in the role conflicts of farm women .The F ratio was found to be significant.

Thus based on the R^2 variance ratio (F values), the null hypothesis was rejected in all the sub systems namely micro, meso, exo, macro and over all systems and the role conflicts indicating that the 16 variables together explained a significant amount of variation in the role stress of above sub systems.

Table 4.24. Multiple regression analysis of personality and family process variables on different sub systems of role stress

S. No	Independent variable	Micro system		Meso system		Exo system		Macro system		Systemic role stress		Role conflicts	
		B value	t value	b value	T value	b value	t value	b value	T value	b value	t value	b value	t value
X1	Self efficacy	-1.3530	-1.967*	-0.4964	-1.856	-0.2963	-1.970*	-1.1112	-2.015**	-0.1359	-0.214**	-1.1396	-2.045**
X2	Self esteem	-0.5076	-0.644	-0.1548	-0.634	-0.9434	-1.234	-1.1211	-2.134**	-1.1242	-0.111	-0.9434	-1.034
X3	Locus of control(IC)	-1.1557	-1.827	-0.1945	-0.612	-0.3351	-0.428	-0.8152	-0.115	-1.1443	-1.413	-1.1234	-1.843
X4	Locus of control (PC)	0.0623	0.145	0.3432	0.412	0.0491	0.164	0.1754	0.113	0.6134	0.512	0.4340	0.689
X5	Locus of control (CC)	-0.0870	-0.238	0.0213	0.240	-0.0315	-0.312	0.1015	0.592	0.9442	0.962	-0.3543	-0.602
X6	Health	-1.0342	-1.523	-0.2813	-0.392	-0.0521	-0.015	-0.1816	-0.592	-0.3042	-0.842	-1.0424	-1.963*
X7	Femininity	0.5148	1.311	-0.2674	-0.038	0.0350	0.098	0.9921	1.424	0.7232	1.084	0.4134	0.948
X8	Masculinity	0.0623	0.145	0.1269	1.118	1.3453	1.964*	0.1917	0.744	0.0742	0.224	0.0423	0.343
X9	Androgyny	-0.1557	-1.043	-0.1193	-1.245	-1.3215	-1.965*	-0.1111	-0.792	-0.9142	-1.345	-1.3343	-2.194**
X10	Cohesion	-0.2735	-1.253	-0.2092	-1.021	-0.0421	-0.343	-0.1520	-0.101	-0.4534	-1.113	-0.0870	-0.398
X11	Expressive-ness	-1.2034	-1.047	-0.4955	-1.867	0.0429	0.390	0.1345	-0.542	-0.2045	-1.314	-1.4523	-2.243
X12	Conflict	0.0085	0.012	0.2140	0.310	-0.0105	-0.043	-0.0104	-0.128	-0.0939	-0.083	0.9403	1.994*
X13	Acceptance & caring	-0.1833	-0.814	-0.2142	-1.212	-0.0494	-0.384	0.2034	0.843	-0.4214	-0.413	-1.1030	-1.154
X14	Coping (Ap)	1.0806	-2.432**	-0.1543	-1.112	-1.0123	-2.408**	-1.1154	-2.342**	-1.0354	-2.045**	-1.0842	-2.342**
X15	Coping (Av)	1.2700	1.542	0.1345	0.941	-0.0211	-0.428	-1.2133	-1.042	-0.0673	-0.104	-0.1108	-0.298
X16	Support	-0.1394	-2.773**	-0.2955	-1.341	-1.0415	-2.045**	-0.5435	-2.054**	-0.1915	-1.196*	-1.0893	-2.643**
Percent variation		**R^2 = 0.5779 F = 9.3564***		**R^2 = 0.2778 F = 1.5025***		**R^2 = 0.6220 F = 4.5870***		**R^2 = 0.2076 F = 4.2123***		**R^2 = 0.3285 F = 9.2195***		**R^2 = 0.1578 F = 2.3553***	

4.4.2.2 Prediction of personality and family related variables contributed for maximum variation in the role stress.

The few variables which contributed maximum extent towards variation in the role stress could be delineated from the rest of the variables which have negligible contribution towards the variation in the role stress of farm women in six areas (micro, meso, exo, macro, over all systems and the role conflicts) at a particular step in step down regression analysis. For this step down regression analysis was run by combining the personality and family process variables.

Null Hypothesis : The additional sum of squares for regression added by the independent variables X1 to X16 will be zero in micro , meso , exo ,macro sub systems , over all systemic stress and the role conflicts of farm women.

Empirical Hypothesis: The scores on 16 independent variables from X1 to X16 will explain a significant amount of variation in the role stress scores of farm women in micro, meso, exo, macro sub systems, over all systemic stress and the role conflicts.

Micro system:

Table 4.25 depicts a clear picture of the independent variables at the last step in step down regression analysis predicting the most influential variables that contributed for maximum amount of variation in the role stress of micro system .It could be observed from the table that in micro system, there were six variables that contributed for 55.66 percent of variation. All the variables i.e. self-efficacy (X1), locus of control (X3), health (X6), expressiveness (X11), coping (X14), and the support (X16) exerted their influence in an opposite direction. The 't' values of self-efficacy (X1), coping (X14) and support (X16) were found significant at 5 percent level .The other variables were not found significant. It infers that these variables are contributing for the difference of variation in the role stress.

Meso system:

The results of the Table 4.25 depicts that the step down regression analysis indicates that the variables self- efficacy (X1), self esteem (X2), androgyny (X9), Expressiveness (X11), support (X16), were found to contribute for maximum amount of variation that influence the role stress significantly and negatively. The total contribution by the aforesaid variables was 27.20 percent and the variance ratio was found significant. The t value of (X1) self- efficacy was found significant.

Exo system :

The results of the step down regression analysis show that the variables self-efficacy (X1), self esteem (X2), androgyny (X9), coping (X14), and support (X16) were found to influence the r5ole stress significantly and negatively. The total contribution was 61.45 percent and variance ratio was found significant.

Macro system:

The variables self-efficacy (X1), self-esteem (X2), coping (X14), and support (X16), were found to influence negatively on the macro system role stress. The total variation explained by the variables was 19.73 percent. The F ratio of R^2 was significant. The femininity (X7) was found to influence negatively at 5 percent level .All the other variables were highly significant ($p<0.01$) in a negative direction.

Over all systems:

The variables self- efficacy (X1), self esteem (X2), cohesion (X10), coping (X14), and support (X16) were found to influence the role stress negatively. These variables contribute 30.64 percent variation in the role stress. Except cohesion, all the other variables were found significant. The R^2 variance ratio was found to be significant.

Role conflicts:

The variables, self efficacy (X1), self esteem (X2), femininity (X7), expressiveness (X11), acceptance and caring (X13) were exerting their influence on the role conflicts. They contribute for a variation of 13.59 percent. The F ratio was found significant. The contribution of femininity was significant and positive .The contribution of self-esteem (X2), was negative and non significant. The rest of the variables self- efficacy (X1), expressiveness (X11), and acceptance & caring (X13) contributed significantly and negatively towards the variation in the role conflicts.

Table 4.25: Step down multiple regression analysis at last step for predicting the Contribution of Personality & Family variables on the role stress

	Independent variable	B value	t value		Independent variable	b value	t value
	MICRO SYSTEM				**MACRO SYSTEM**		
X1	Self Efficacy	-2.5430	-2.344	X1	Self Efficacy	-1.1172	-2.437
X3	Locus of control(IC)	-1.5437	-1.924	X2	Self esteem	-1.3453	-2.537
X6	Health	-1.7423	-1.843	X7	Femininity	1.345	1.745
X11	Expressiveness	-1.3524	-1.545	X14	Coping	-1.467	-2.742
X14	Coping (Ap)	-1.0806	-2.843	X16	Support	-0.9454	-2.579
X16	Support	-0.5924	-2.994				
	R^2 : 0.5566	F : 32.5709*			R^2: 0.1973	F: 15.2112*	
	MESO SYSTEM				**OVER ALL SYSTEMS**		
X1	Self Efficacy	-0.8247	-2.224	X1	Self Efficacy	-0.1952	-0.2643
X8	Masculinity	0.1579	1.254	X2	Self esteem	-1.1745	-0.2123
X9	Androgyny	-0.1793	-1.345	X10	Cohesion	-0.7345	-1.543
X11	Expressiveness	-0.5355	-1.984	X14	Coping	-1.4364	-2.475
X16	Support	-0.3464	-1.742	X16	Support	-0.9342	-2.452
	R^2: 0.2720	F : 4.0654*			R^2: 0.3064	F: 31.5417*	
	EXO SYSTEM				**ROLE CONFLICTS**		
X1	Self Efficacy	-0.4563	-2.347	X1	Self Efficacy	-1.5373	-2.457
X2	Self esteem	-1.4574	-2.435	X2	Self esteem	-1.2430	-1.542
X9	Androgyny	-1.5452	-2.345	X7	Femininity	0.8134	1.345
X14	Coping	-1.2134	-2.605	X11	Expressiveness	-1.8523	-2.547
X16	Support	-1.354	-2.374	X13	Acceptance & caring	-1.2742	-2.205
	R^2: 0.6145	F: 16.0429*			R^2: 0.1359	F: 6.6260*	

4.5 Effect of selected characteristics on the role stress of farm women

From the previous trends of the chapter it could be said that the data indicated the observed relationship between the independent and dependent variables partially relative. A portion of the observed relationship may be due to the joint or combined influence. For this reason to know the influence of independent variables on the dependent variable, the path analysis was carried out. The important and significant variables were selected for path analysis based on the following points.

1. The independent variables having significant correlation coefficients.
2. The independent variables having significant regression coefficients.
3. The variables, which are separate and not having additive or parallel effect of other independent variables. (For e.g., the variable SES is the sum total of income along with the scores of many other variables. Hence in this case, either SES or income has to be selected). Thus a total of 11 independent variables were selected and subjected to path analysis and presented system-wise in succeeding pages.

Table 4.26: Path analysis of selected independent variables on the micro system role stress

Independent Variable	Correlation coefficient	Direct effect	Total Indirect effect	Substantial indirect effect through
A1 Education	-0.3145	-0.1350	-0.1795	0.1053(A5)
A2 SES	-0.3380	-0.2118	-0.1262	0.1615(A7)
A3 Farming experience	-0.1589	-0.0877	-0.2426	0.0954(A6)
A4 Self efficacy	-0.3093	-0.1514	-0.1579	-0.1135(A11)
A5 Self esteem	-0.1270	-0.1745	-0.0475	-0.0980(A10)
A6 Locus of control (IC)	-0.2463	-0.1455	-0.1008	-0.1143(A10)
A7 Health	-0.2984	-0.1742	-0.1242	-0.0997(A10)
A8 Androgyny	-0.1844	-0.0978	-0.0866	-0.0753(A10)
A9 Family environment	-0.2045	-0.1110	-0.0935	-0.0741(A11)
A10 Coping (Approach)	-0.4441	-0.1911	-0.2530	-0.1417(A11)
A11 Support	-0.3114	-0.1929	-0.1185	-0.1106(A10)

(The variable in the parenthesis represents intermediate variable leading to dependent variable)

Micro system :

The maximum correlations were observed in the variables in the corresponding order of Coping, SES, Education, support and self efficacy. Table 4.27 shows that the maximum direct effect on the role stress was shown by the variables, A2-SES followed by A11-Support, A10-Coping in the negative direction. Similarly A10-Coping, A3-Farming experience and A1-Education were the variables with the maximum additive indirect effect in the negative direction respectively. Out of 11 variables, 5 variables had the substantial indirect effects of other variables through them. The crucial variable and the most important variable was A10-Coping as 5 other variables had their substantial indirect effect through A10.

Figure-4.12 Path analysis of independent variables on micro system (Direct effect)

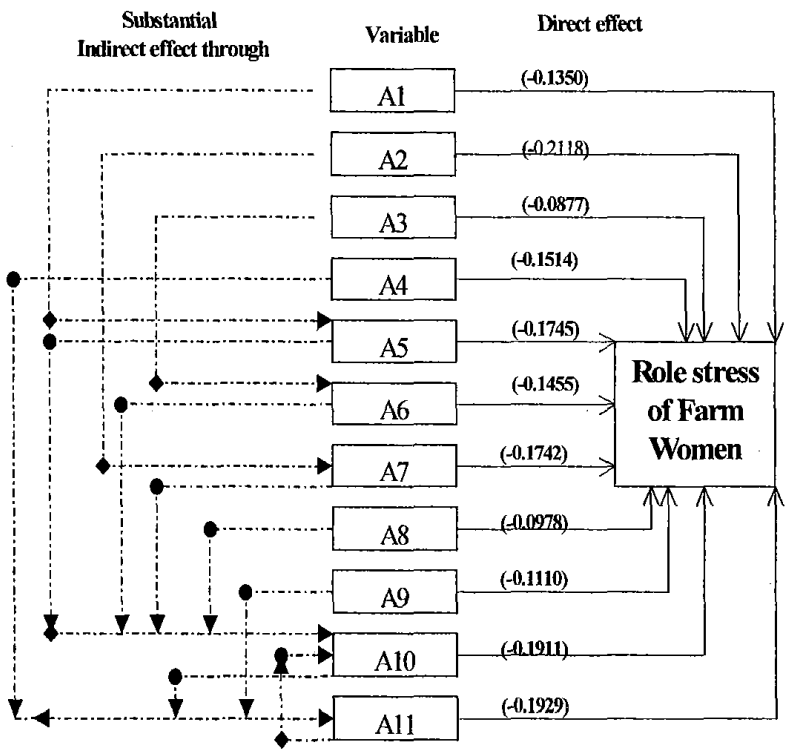


Table 4.27: Path analysis of selected independent variables on the meso system role stress

Independent Variable	Correlation coefficient	Direct effect	Total Indirect effect	Substantial indirect effect through
A1 Education	-0.0789	-0.0515	-0.1304	-0.1271(A5)
A2 SES	-0.1442	-0.2556	-0.1114	0.1209(A1)
A3 Farming experience	0.1086	0.1240	-0.0154	-0.0046(A8)
A4 Self efficacy	-0.1723	-0.2170	-0.0447	0.1504(A10)
A5 Self esteem	-0.0798	0.1140	-0.1929	-0.1245(A8)
A6 Locus of control (IC)	-0.0883	0.0986	-0.0103	-0.1249(A4)
A7 Health	-0.0744	0.0940	-0.0166	-0.0798(A10)
A8 Androgyny	-0.1394	-0.1027	0.2421	-0.0542(A10)
A9 Family environment	-0.1224	-0.0925	-0.0299	0.0861(A5)
A10 Coping (Approach)	-0.0928	-0.0427	-0.0497	0.1295(A11)
A11 Support	-0.1946	-0.0246	-0.1700	0.0861(A10)

(The variable in the parenthesis represents intermediate variable leading to dependent variable)

Meso system:

Table 4.27 portrays the direct and indirect effects of the variables. The maximum correlation coefficient was by the variable A11-Support, A4- Self efficacy followed by A2-Socio-economic status. The A2-SES ranks highest in the direct effect followed by A4-Self efficacy. A8-Androgyny ranks highest in its indirect effect followed by A5-Self esteem. 6 variables A1-Education, A4- Self-Efficacy, A5-Self Esteem, A8- Androgyny, A10- Coping & A11-Support were found to have substantial indirect effect of other variables through them. The crucial variable was A10-Coping because as many of 4 variables were passing through this variable.

Figure-4.13 Path analysis of independent variables on meso system

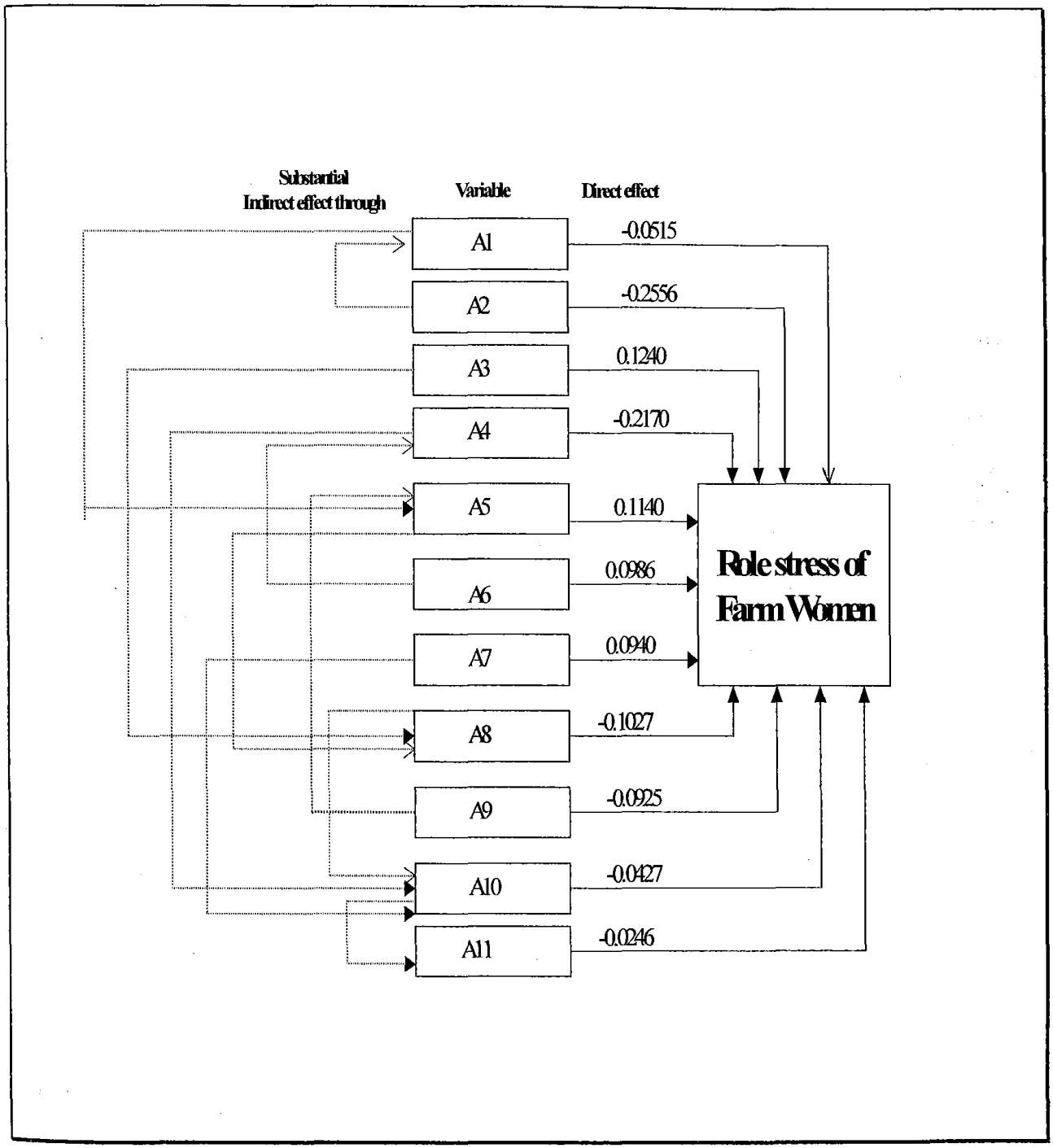


Table 4.28: Path analysis of selected independent variables on the exo system role stress

Independent Variable	Correlation coefficient	Direct effect	Total Indirect effect	Substantial indirect effect through
A1 Education	-0.1489	-0.1839	0.0350	0.0524(A5)
A2 SES	-0.4052	-0.2161	-0.1891	-0.1414(A11)
A3 Farming experience	-0.1261	-0.0616	-0.0645	0.0485(A10)
A4 Self efficacy	-0.3283	-0.0631	-0.3914	0.0628(A1)
A5 Self esteem	-0.3006	-0.1342	-0.1664	-0.0515(A4)
A6 Locus of control (IC)	-0.2242	-0.1920	-0.0322	-0.0784(A8)
A7 Health	-0.0323	-0.0047	-0.0276	-0.0123(A10)
A8 Androgyny	-0.2674	-0.0433	-0.2241	0.0755(A10)
A9 Family environment	-0.2123	-0.0585	-0.1538	-0.1021(A10)
A10 Coping (Approach)	-0.2401	-0.1467	-0.0934	-0.0889(A11)
A11 Support	-0.3383	-0.1345	-0.2038	-0.0682(A10)

(The variable in the parenthesis represents intermediate variable leading to dependent variable)

Exo system:

The table 4.28 explains that maximum correlation coefficient was given by the variable, A11-Support followed by self efficacy- A4 and A5- self esteem.. The maximum direct effect was caused by the A2-SES followed by A6-Locus of Control and A1-Education. The maximum indirect effect was exerted by the variable A4-Self efficacy followed by the variable A8-Androgyny. The maximum numbers of 5 variables were passing through the variable A10-Coping. 2 variables were passing through the variable A11-Support. 6 variables A1 - Education, A4- Self-efficacy, A5- Self esteem, A8- Androgyny, A10- Coping & A11- Support. were called endogenous variables as they had substantial effects of other variables through them.

Figure-4.14 Path analysis of independent variables on exo system

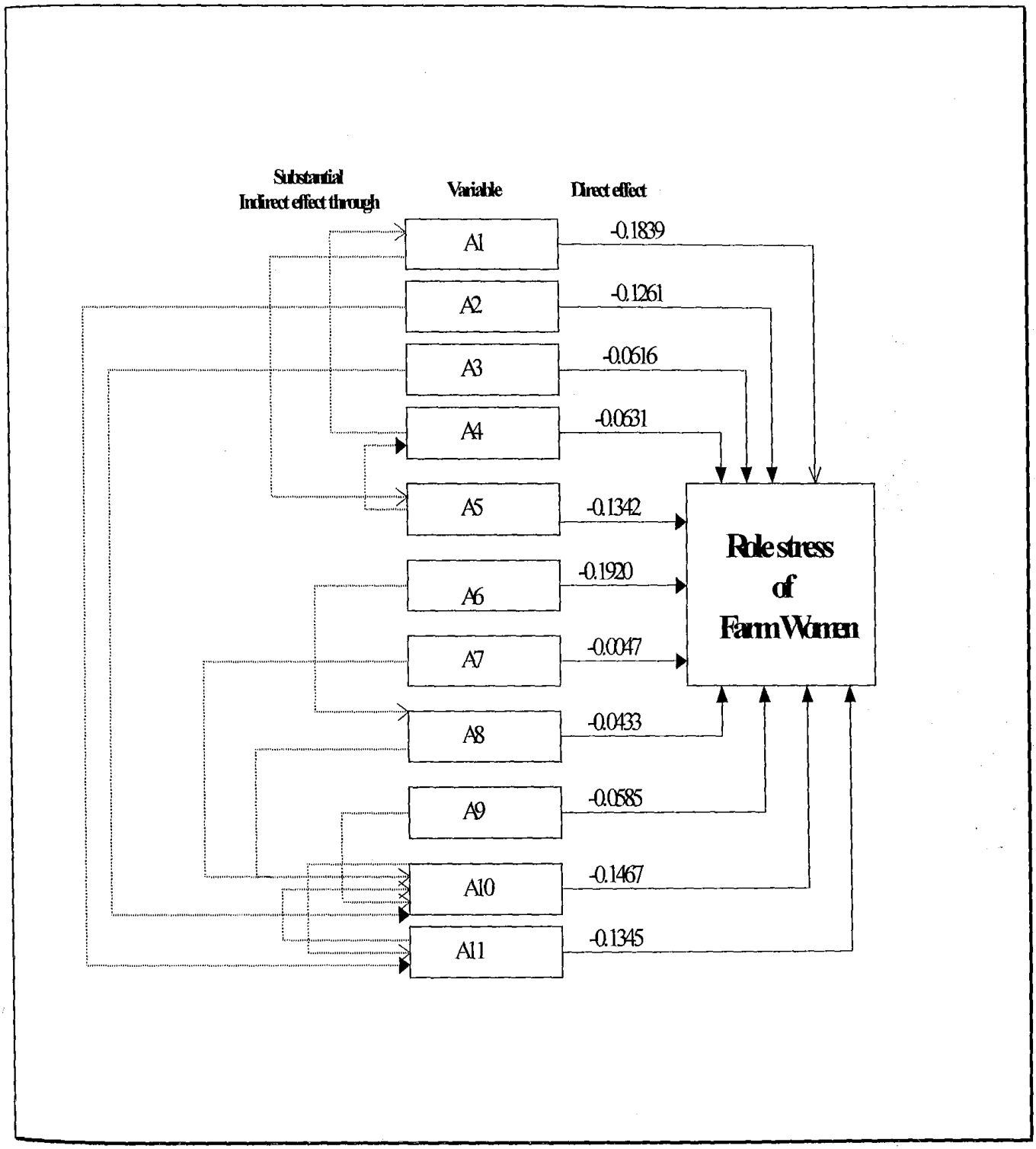


Table 4.29: Path analysis of selected independent variables on the macro system role stress

Independent Variable	Correlation coefficient	Direct effect	Total Indirect effect	Substantial indirect effect through
A1 Education	-0.1265	0.2183	-0.3448	-0.1117(A10)
A2 SES	-0.5527	-0.5041	0.0486	-0.1976(A7)
A3 Farming experience	0.0093	-0.1314	-0.1221	0.1461(A8)
A4 Self efficacy	-0.3379	-0.1398	-0.1981	0.0331(A11)
A5 Self esteem	-0.2779	-0.1146	-0.1633	0.1202(A10)
A6 Locus of control (IC)	-0.0945	-0.0590	-0.0355	0.1070(A1)
A7 Health	-0.0766	-0.0309	0.0457	-0.0729(A10)
A8 Androgyny	-0.1634	-0.0297	0.1337	-0.1337(A6)
A9 Family environment	-0.0423	0.0072	0.0496	-0.1279(A5)
A10 Coping (Approach)	-0.2021	-0.0700	-0.1321	0.0679(A1)
A11 Support	-0.2275	-0.0562	-0.1713	-0.1586(A2)

(The variable in the parenthesis represents intermediate variable leading to dependent variable)

Macro system :

The table 4.29 explains that the maximum correlation coefficient was caused by the variable A2-SES. The maximum direct effect was exerted by the variable A2-SES followed by A4-Self efficacy. The maximum indirect effect was caused by the variable A1-Education followed by A4-self efficacy and A11-Support. The variables A1- Education, A2- SES, A5-Self-Efficacy, A6- Locus of Control, A7- Health, A8-, A10 & A11 had the substantial effects of other variables through them. The crucial variable was found to be A10-Coping as 3 of the variables were passing through this variable.

Figure-4.15 Path analysis of independent variables on macro system

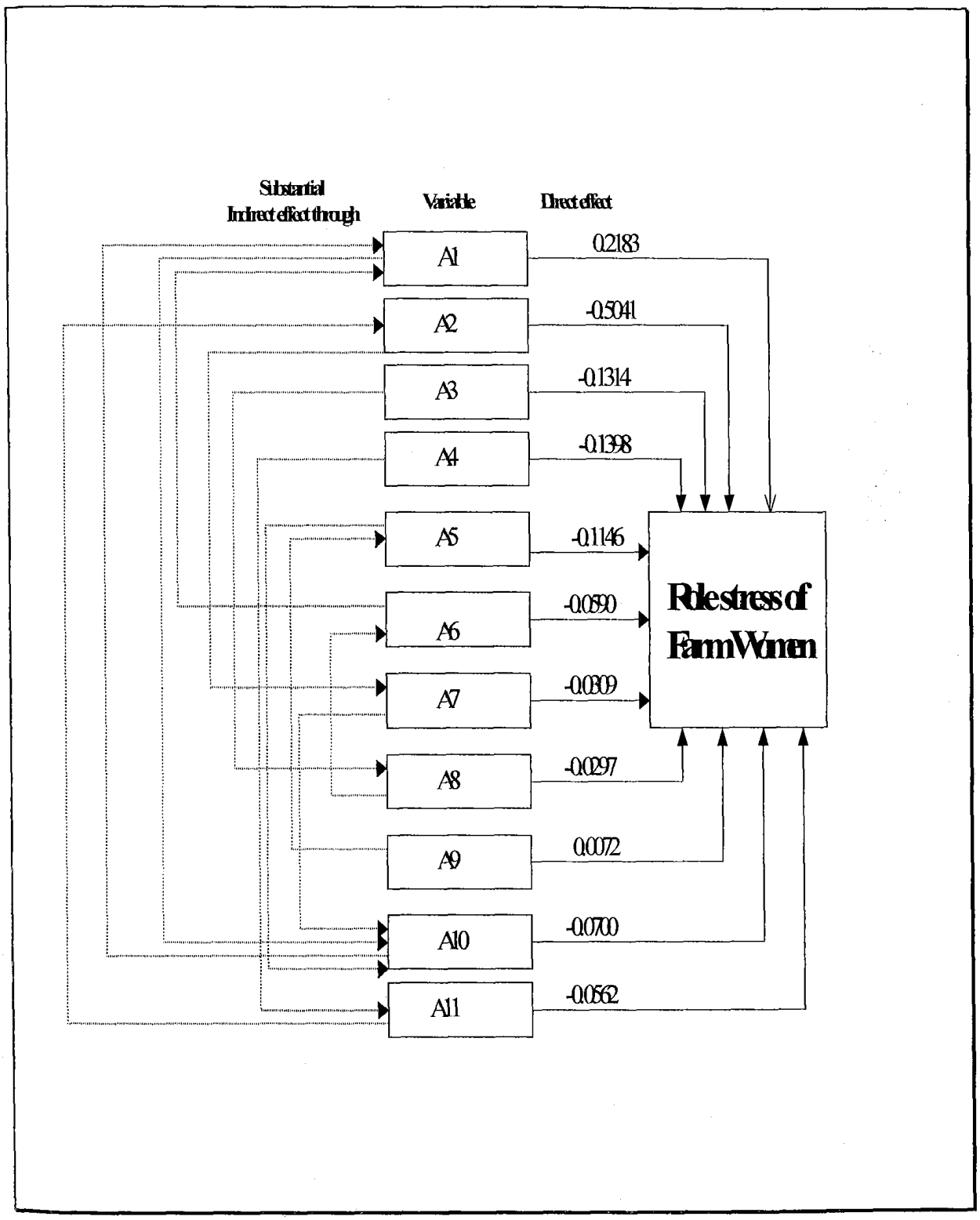


Table 4.30: Path analysis of selected independent variables on the overall systemic role stress

Independent Variable	Correlation coefficient	Direct effect	Total Indirect effect	Substantial indirect effect through
A1 Education	-0.2813	0.0151	-0.2964	-0.0524(A4)
A2 SES	-0.4542	-0.1275	-0.3267	-0.0921(A11)
A3 Farming experience	0.1100	-0.0353	-0.0747	-0.0547(A10)
A4 Self efficacy	-0.2834	-0.1220	-0.1614	-0.0834(A5)
A5 Self esteem	-0.2046	-0.1168	-0.0878	-0.0435(A6)
A6 Locus of control (IC)	-0.1024	-0.0958	-0.0066	-0.0012(A5)
A7 Health	-0.1941	-0.0961	-0.0980	-0.0542(A2)
A8 Androgyny	-0.1924	-0.1423	-0.0501	-0.0224(A10)
A9 Family environment	-0.1657	0.1223	0.2880	-0.0942(A10)
A10 Coping (Approach)	-0.3262	-0.1643	-0.1619	-0.1124(A11)
A11 Support	-0.3422	-0.1731	-0.1691	-0.1525(A10)

(The variable in the parenthesis represents intermediate variable leading to dependent variable)

Over all systems :

The over all systemic picture of table 4.30 shows that the maximum correlation coefficient value between role stress and the variable A2-SES. The direct effect was maximum in case of the variable A11-Support followed by the variable A10-Coping. The total indirect effect was maximum in case of A2-SES followed by A1-Education and A9 - Family environment. The maximum number of 4 variables had their substantial effects through the variable A10-Coping followed by A11-Support where a number of two variables are passing through it. The variables A2-SES, A4 Self efficacy, A6- Locus Of Control, A10-Coping & A11-SES had the substantial effects of others through them.

Figure-4.16 Path analysis of independent variables on overall role stress

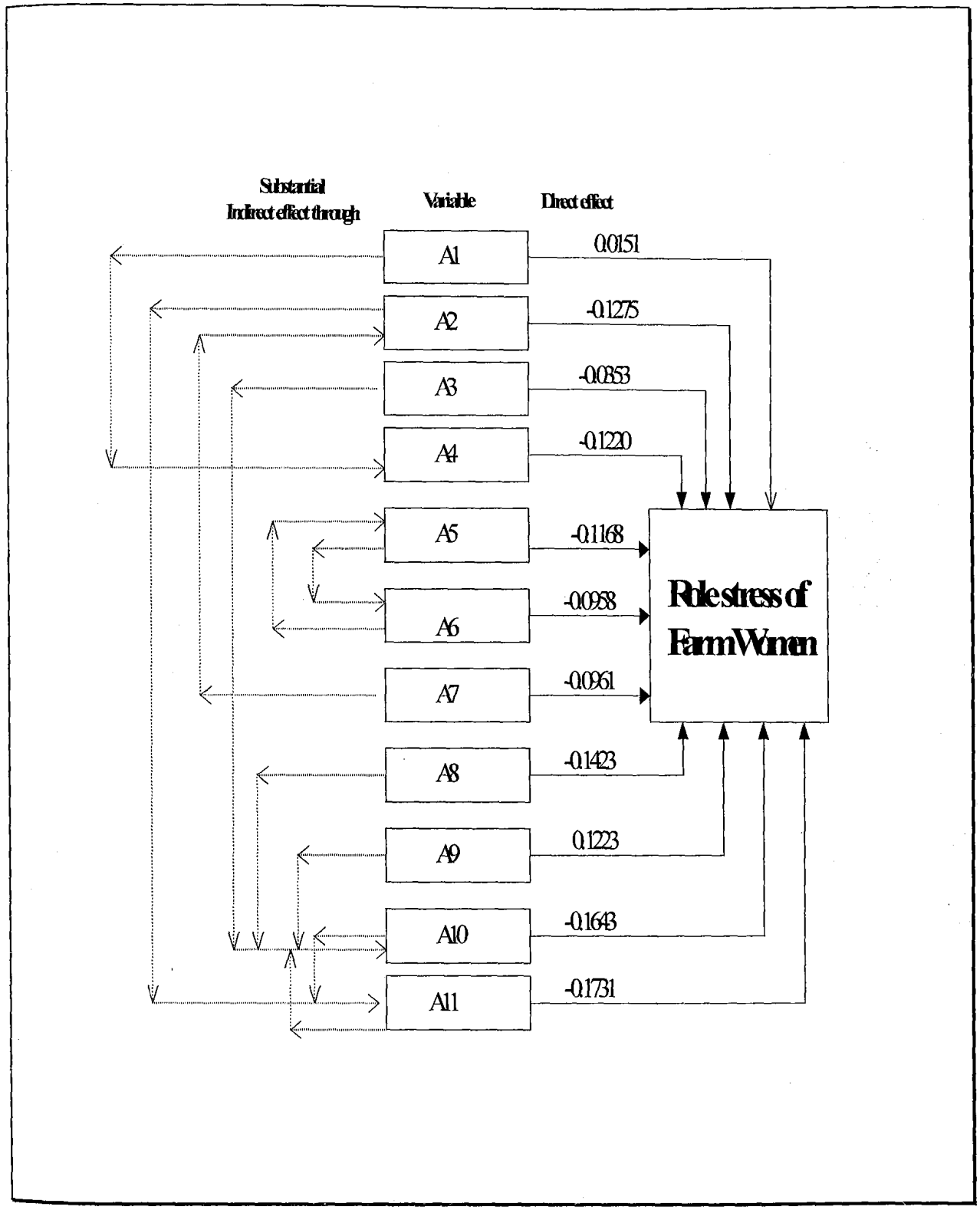


Table 4.31: Path analysis of selected independent variables on the role conflicts

Independent Variable	Correlation coefficient	Direct effect	Total Indirect effect	Substantial indirect effect through
A1 Education	-0.1342	0.0939	-0.2281	-0.0542(A6)
A2 SES	-0.0253	0.3122	0.2869	-0.0485(A7)
A3 Farming experience	-0.0762	-0.0308	-0.0454	-0.0225(A1)
A4 Self efficacy	-0.1295	0.0550	-0.1845	-0.0921A10)
A5 Self esteem	-0.1923	-0.0567	-0.1356	-0.0842(A6)
A6 Locus of control (IC)	-0.2976	-0.0765	-0.2211	-0.0432(A4)
A7 Health	-0.2439	0.0786	-0.3225	-0.0534(A10)
A8 Androgyny	-0.1312	-0.0945	-0.0367	-0.0254(A4)
A9 Family environment	-0.0954	-0.1273	0.0319	-0.0232(A11)
A10 Coping (Ap)	-0.1663	0.0959	-0.2622	-0.1129(A11)
A11 Support	-0.2146	-0.1085	-0.1061	-0.1020(A10)

(The variable in the parenthesis represents intermediate variable leading to dependent variable)

Table 4.31 depicts the direct and indirect and substantial effects of the variables. The variable A2-SES had maximum direct effect followed by the variable A11-Support. The total indirect effect was maximum in case of the variable A7-Health followed by the variable A2-SES. The crucial variable was A10-Coping followed by A11-Support. The variables A1-Education, A4-Self Efficacy, A6- Locus of control (IC), A7 (Health), A10 (Coping) & A11 (Support) were found to be the endogenous variables which allow other variables to cause their substantial effects through them.

Figure 4.17 Path analysis of independent variables on the role conflicts

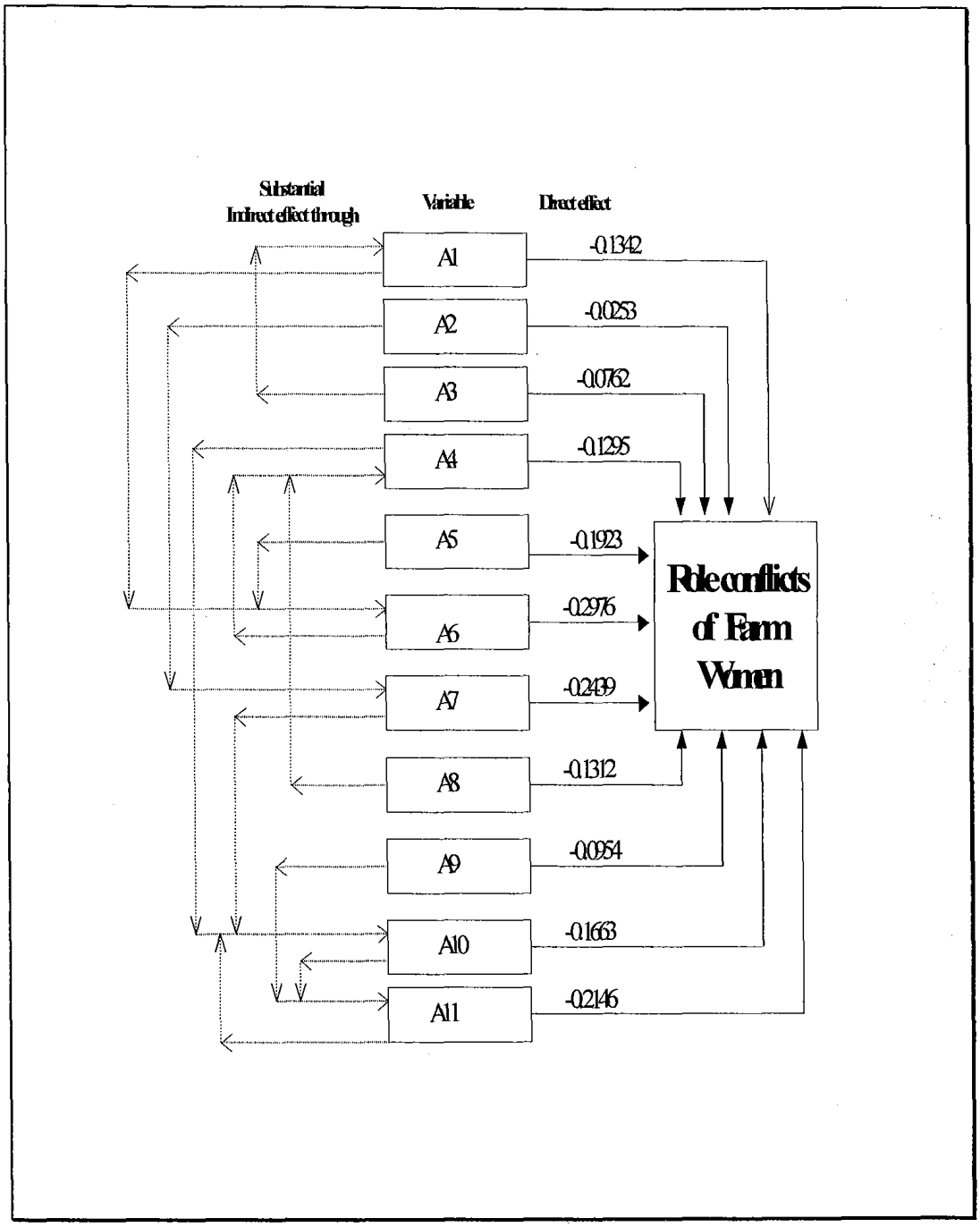
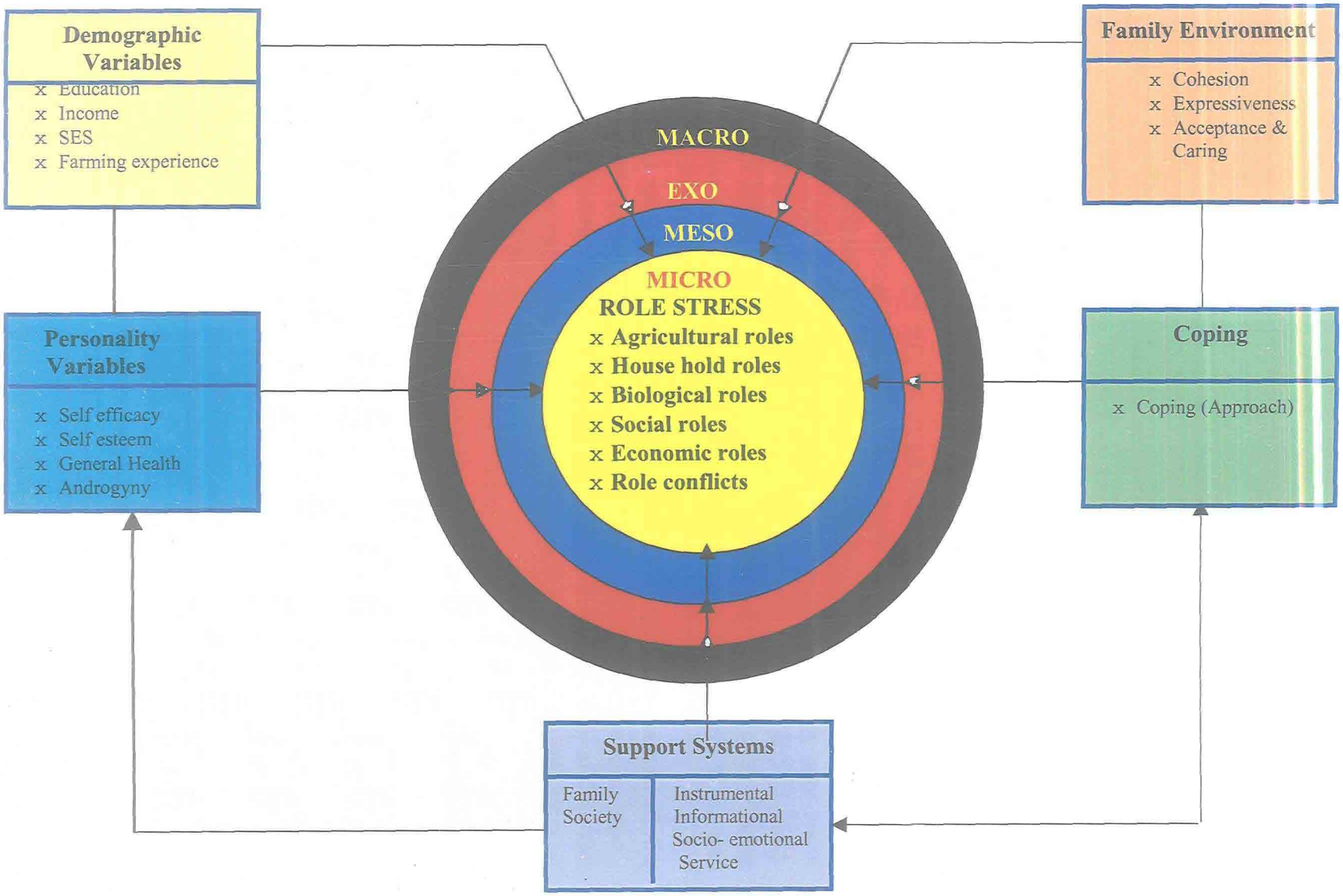


Figure 4.18 CONCEPTUAL FRAME WORK (EMPIRICAL)



CHAPTER- V

DISCUSSION

The modern world, which is said to be a world of achievements, is also a world of stress (Tyagi & Sen, 2000). Stress is the most pervasive phenomena in one's life in general and in role performance in particular. Recent years have witnessed a tremendous growth of women as an important segment of the work force of modern society.

Statistical data from studies in various countries demonstrates that there is progressive increase in the number of women involved in agriculture, both as cultivators and wageworkers. More than 550 million women in the world are engaged in agriculture. A large number of women are engaged in unskilled and under skilled works and live below poverty line in developing countries. They have lot of physical and psycho- social problems on account of multiple roles entrusted on them. Steps have to be taken to increase their efficiency, reduce their problems and to provide social support to enhance their abilities. The farm women spend a considerable amount of time and energy during the agricultural operations and household activities which involve lot of physical and psychological strain. Many of the research findings indicated that farm women are exposed to drudgery during their agricultural operations (Rajini 1988; Singh and Bhattacharya 1990; Maurya & Maurya, 1993; Kalyani, 1998; Mrunalini et.al, 1999; Mamata & Hiremath, 2001).

A series of research studies conducted during last two decades have emphasized that the farm women are exposed to lot of physical, psychological and occupational health hazards which in turn creates lot of stress in performance of their roles both at farm and home. Based on this assumption the present study is aimed at identifying the role stress of farm women under four different sub systems.

In the light of the data collected for the study, the findings obtained are discussed under the following sections.

5.1 Role stress scale.

5.2 Descriptive analysis of variables

- 5.2.1 Demographic factors of farm women
- 5.2.2 Personality variables of farm women
- 5.2.3 Family processes of farm women
- 5.2.4 Role stress of farm women

5.3 Relationship analysis of selected characteristics and the role stress of farm women

- 5.3.1 Relationship between demographic factors and the role stress of farm women

5.3.2 Relationship between personality components and the role stress of farm women

5.3.3 Relationship between family processes and the role stress of farm women

5.3.4 Relationship between different sub systems of the role stress.

5.4 Comprehensive relationship analysis between independent variables and role stress.

5.1 ROLE STRESS SCALE

Detailed description of role stress inventory is given in Methods Chapter III. Role stress and the role conflicts are the complimentary terms that were used by different psychologists. The studies conducted by Udai Pareek (1983) and Pestonjee (1997) have revealed a detailed description of 10 different role stresses. Hargopal (1995), Narang (1996) and Sinha (1987) have classified the same terms under the domain, 'role conflicts'. All of them have focused their attention on the complimentary or incompatible effect of role stress. They have explained about the role stress, which is caused when a person is forced to fulfill a number of mutually exclusive or incompatible roles simultaneously. None of them explained the single or unity effect of each role present in the role space of the individual. This particular scale is an attempt to measure both unitary effect of the role and the complimentary effect of different roles.

The role stress scale is a scale developed to measure the construct, role stress perceived by the farm women in performance of their activities in daily routine. The scale ensures an estimate of the farm women's feeling of stress encountered in performance of their roles. The role stress scale measures ten different dimensions. The scale is applicable to farm women in rural situation. In order to study the role stress in detail it was decided to develop a comprehensive role stress scale covering the most important areas of role stress. Although there were some inventories to measure the role stress of working women, no single inventory is applicable to measure the role stress of women in agriculture. Thus keeping the crucial need in view an attempt has been made to develop role stress scale.

The investigator tried to establish the content validity by formulating definitions of specific domains, preparing statements to fit the construct definitions, and selecting items that were conceptually related to a dimension and were shown empirically to belong to that dimension. To increase the conceptual clarity and minimize the time overlap four criteria were followed viz., meaningful ness, item distribution, item interrelatedness and sub scale independence.

a. Systemic role stress / unitary effect

This is the single or unitary effect of the stress perceived by the individual due to a particular role. The role stress is studied as per the ecological model proposed by Bronfenbrenner (1979). It refers to the unjust psychological pressure, threat or strain perceived and experienced by the farm woman in performance of her roles simultaneously from various distances from her role space (the system of roles she occupies and performs e.g., Micro System) or from her role set (the system of various roles of which her role is a part) (defined by Pareek, 1983 and modified to suit the present study) from the human ecological environment.

Enumerable studies quoted that the ecological reasons may be the source of stress, which have a bearing effect in influencing the daily chores of an individual. This concept of ecology thus forms the basis of study. The Systemic dimensions include micro, meso, exo and macro systems of the ecology where micro system is further branched out into agricultural, household, biological, economic and social roles. The stress perceived due to the different roles namely agricultural, household, biological, economic and socio-recreational roles have been studied in a detailed manner. The meso, exo and macro sub systems are outer systems where different factors found in these systems impinge stress on the roles of the farm woman present in the micro system. Hence an attempt was made to study the role stress present in sub systems under analytical approach.

b. Conflictive Role Stress:

The concept of self is central to the concept of role. The various roles occupied and performed by the farm woman are patterned around the self. The roles are at various distances from the self and from each other. These relationships define the role space. The distance between the role and the self will indicate the extent to which the role is integrated with the self. The role space can be defined as the dynamic interrelationship both between the self and the various roles the farm woman occupies, and amongst these roles. The identified role conflicts in the role space of the farm woman are placed here.

When mutually exclusive or complimentary or incompatible roles are present, the force exerted on the individual is called conflictive role stress. This type of role stress has been explained by a number of psychologists as mentioned above. Only six domains out of ten domains have been considered for the present study. The domains selected for the present study were role overload, role expectation conflict; inter role distance, role stagnation, self-role distance and role erosion.

The domains role ambiguity and role isolation were not included after the result of pilot study as majority of the farm women did not express the role stress under these domains. The domain, personal inadequacy has been almost studied the sections like self esteem, self-efficacy and locus of control. The domain, resource inadequacy was studied in the variable `support system'. Hence the above six dimensions out of ten domains proposed by Pareek (1983), were considered for the present study.

The finalized role stress scale comprising of 130 statements was translated into regional Telugu Language by referring Dictionaries and Telugu journals and by selecting suitable local words. The translated version was given to the experts good at Telugu Language(n= 30). In the light of the comments and criticism of the experts, the statements were modified and rewritten. The statements with 75 percent approval of the experts were retained finally. As per the suggestions of experts the 130 selected items were categorized under different areas of role stress, listed as follows:

Areas of Role Stress Inventory

	Dimension	**Number of Statements**	**Minimum score**	**Maximum score**
a)Ecological/ Systemic Role Stress	1)Role Stress within the microsystem			
	a) Agricultural role stress	15	15	45
	b) Household role stress	15	15	45
	c) Biological role stress	15	15	45
	d) Economic role stress	10	10	30
	e) Social/recreational role stress	10	10	30
	2) Role stress with in the meso system	10	10	30
	3) Role stress with in the exo system	10	10	30
	4) Role stress with in the macro system	10	10	30
b)Conflictive Dimensions	1) Role overload.	10	10	30
	2) Role expectation conflict.	5	5	15
	3) Inter role distance.	5	5	15
	4) Role stagnation.	5	5	15
	5) Self role distance.	5	5	15
	6) Role erosion.	5	5	15

(A more detailed theoretical description of the areas of role stress is given in Materials and Methods chapter under section 3.4).

Scoring Pattern

Role Stress Scale is an attitude scale containing 130 items categorized into two areas each of which is further divided. The responses range from agree (3), sometimes (2) and never (1) where the scores range from 3 to 1 respectively. Thus, a maximum possible score is 390 and minimum score is 130. The respondent's total score is obtained by adding the scores over all the individual items in the scale. As each area of role stress is unique and distinctive in nature, the number of items under each category varies as per need.

5.2 DESCRIPTIVE ANALYSIS OF VARIABLES

The four sets of independent variables; demographic, personality, family environment, coping process and support system were subjected to corelational analysis. The details were discussed based on their relationship.

5.2.1. Demographic factors of farm women

This section gives the information about the respondents which include the variables like age, education, caste, income, land holding house type material possession, socio-economic status, farming experience, family type, family size, marital status, age at marriage and number of children of the farm women.

The profile analysis of farm women with respect to the demographic characteristics revealed that a majority of the farm women were middle aged, illiterates, had low income, low material possession with low socio-economic status, belonged to small farmer category, had medium family size, nuclear families, married earlier, with a high farming experience .

Age

The profile Table (4.1) indicates that 39.17% of farm women were middle aged category. Generally the age gives woman strength to take stressors in her stride. The aged women learn the expertise and proficiency in agricultural activities with advanced age. Government should also consider age while formulating training or teaching any other programme that enhances the farming performance, as women at this age group are relatively free from responsibilities and more enthusiastic when compared to old women.

The findings were in line with Reddy (1990), Reddy (1996), Amtul Waris (1997), Lalitha, Siddaramaiah & Vaster (2000), Panwar & Gupta (1996), Bhople & Pakti (1998), Suchitra (1987), Puneetha (1989) indicating a large prcentage of farm women from the middle aged group.

Education

A moderate percent (44.16%) of the farm women were found to be illiterates. In spite of the fact that education was made compulsory for all the children below 14 years age of all sections of the society as per National policy. The rural woman starts working from her childhood. Her vocational responsibility starts when she is hardly three years old by assisting her mother in gathering grains and feeding the poultry and cattle. From her fifth year she carries fuel, fetches water, sweeps floor, helps in cooking and looks after her younger siblings (Jyothi and Goenkar, 1994). That is the reason that many of them remained as school dropouts. The farm women are the disadvantaged and deprived group subjected to exploitation since their childhood. They are neglected and have least access to resources like education and other human rights. Hence more efforts are needed to change the outlook of society towards the importance of education, which can empower the farm women to involve them in the national stream.

The results were in line with Reddy (1990) Sabitakumari (1995), Reddy (1996), Padma (1987), Rajini (1989), Reddy (1990) and Choudhary & Prasad (1993) indicating that illiteracy as more prominent factor in farm women.

Caste

The profile reveals that 6.25 percent belong to scheduled tribes, 34.17 percent belong to scheduled castes, 25 percent belong to backward castes and 34.58 percent belong to other castes. This description clearly shows that farm women are representing from all the castes in performance of farming activities.

This finding was in conformity with the finding of Padmalatha (1993), Amtul Waris(1997) and Bhople & Patki (1998) justifying that the farm women belong to different categories of the castes and a maximum percentage of labourers belong to scheduled castes. Rural woman is a victim of triple oppression. As a worker she is exploited and therefore she earns low wages and as a member of a particular caste she is kept only at a particular level of the social order and as a family member she is harassed by the family members (Srivastava, 2000).

Income

The results reveals that most of the population earn below Rs.25,000/-annually. It shows that in spite of their hard work and long effort the farm women earn low income. It may be either due to the reason of low employment opportunity in villages and low rate of wages. The farm women have to depend on the climatic vagaries and natural circumstances like rainfall and temperature. Other than this the natural calamities like floods, drought, and lack of irrigation facilities make the women remain in low income.

The resources like credit facilities, technology and marketing in the rural areas are not accessible to the hapless women. Even though they have allied occupations like animal husbandry and poultry enterprises, the women have little access to the recent technologies and economic productivity. This might be the reason for their low-income level. As majority of the farm women are from small and land less categories, many of them cultivate the land by taking it for lease. The payment of heavy amounts to land lords made them still poor.

The results were in line with Rajini (1989), Leena (1993), Bhople & Patki, (1998) and Khodasker (2001) indicating the low income from marginal and small holding categories. The prevalence of Minimum Wages Act XI is not in practice as there is clear discrimination in payment of wages between men and women (Srivastava, 2000). There are still wage disparities and social prejudices existing in Indian society(Lalvani, 1984; Sonarikar, 1984; Jhabvala, 1984; Chaudhari, 1984).

Land holding / Farm size

The results indicate that 63.75 percent of the farm women belong to Small holding category representing land less and marginal farmers.

This shows the situation of poverty in rural India. Appropriate structural, functional and institutional measures would be initiated to improve and empower this particular section of the society to build their capacities and improve their access to inputs such as land, credit and agricultural technology. Efforts should be made by different Government / Non governmental organizations to incorporate gender issues into the developmental agenda to ensure women's full and equitable participation in agricultural development programmes.

The results were in line with Duvvury (1989), Reddy (1996) and Bhople & Patki (1998), Choudhary and Prasad (1993) exploring that majority of the farm women belong to landless and marginal holding categories.

House Type

The profile of the farm women (Table 4.1) show that farm women have pucca, semi pucca and kachcha (mud and thatched) houses. Some of the scheduled caste women reside in concrete houses constructed for weaker sections by the government.

This finding was supported by Amtul Waris (1997) and Leena (1993) indicating Kachcha houses of farm women.

Material Possession

Most of the farm women (57.08%)posses low material as portrayed from the profile table.

Land ladies had more purchasing power proportionate to their land holdings and had several farm implements to cultivate larger area in short time. Whereas farm women with small holdings had just sufficient number of home and farm implements as they had average purchasing capacity. However, land less labourers had low material possession. The reason may be because of low purchasing power. More over the land less labourers spend their manual labour involving more drudgery in cultivating their lands without much dependence on farm implements. The findings were in line with Reddy (1996).

Socio Economic Status

A majority of the farm women(57.08%) belong to low socio-economic status as per the Table. The intensity was more in Kurnool than in Guntur district.

The socio-economic status of the women is related to the ecological conditions and production relations of a particular region and can be enhanced only by empowerment. For empowerment of women, economic independence is of paramount importance. Empowerment of women means thereby adequate access to resources, power and decision-making. Women continue to have less access to land ownership and other property credit facilities, income-generating programmes etc. However, they are paid less for longer hours and most difficult and respective form of labour. Development will therefore remain one sided if women are not encouraged to be associated with economic development.

The Governmental efforts and plans should be directed towards the upliftment of socio-economic conditions of the farm women. Apart from the economic conditions, the women need to be well aware of the social institutions around them and participate actively in developmental programmes of the institutions (Sobha, 2001; Bhople & Patki, 1998).

Family Type

The table depicts that a large sample (60.42%) of the farm women belong to nuclear families. In tune with the growing population in rural areas the joint families break into nuclear families resulting in the division of land. Hence there found to be more nuclear families as a result of social change process.

It gives an insight to the Government and Non-Governmental agencies to formulate an integrated land based activities for supporting and for upliftment of small families by making resources available to them. The findings were in line with Reddy (1996) indicating nuclear family type of farm women.

Family Size

It can be inferred from the table that a majority of the farm women had medium size families followed by small size families. With the advent of industrialization and urbanization the joint families break into small nuclear families and hence the family size has been reduced.

The developmental programmes of Government should be aimed at improving the socio-economic conditions of these families by making the resources at their disposal. The findings were supported by Suchitra (1987), Sailaja (1996) and Sreedevi (1996).

Marital Status

Even though a majority (87.92%)of the farm women were married women living with their spouses, a small fraction of the women were divorced and widowed. These women should not be neglected as they are the farm managers and bread winners of their families. There are special taboos and restrictions on them in certain spheres. Hence, they should be provided certain services by the Government. Social reforms and collective actions are required to restrict the social malpractices. The property and the lands should be registered on their names. The resources like credit, technology and lands should be made accessible to them.

The facilities like micro credits and pensions should be made available to them. The entrepreneurship skills of farm women should be activated and the women should be economically motivated for their socio-economic development.

Age at marriage

The results reveal that majority (72.92%) of the farm women got married at their earlier ages. The child marriages were more in Kurnool district than Guntur district according to the result.

The child marriage restraint act enacted in 1929 was last amended in 1978 and the minimum age for marriage for females was raised to 18 and now to 21 years for women. Even after 25 years of the enactment and amendment, the mean age for marriage remains below 18 years. This may be due to the social evil, `dowry system' that is prevalent in Indian society. The parents want their daughters to get married soon after their puberty by arranging some amount of dowry. The reason for this fact is dowry increases along with the age and educational level of the brides. The rural population must be educated regarding the Governmental policies and legal issues. The adolescents should be trained in the family issues like `preparation for marriage', `family planning methods' and `Acquired immunity deficiency syndrome'.

The report is in line with Mohanty (1995), Kapoor (1989) and Jha (1997) showing child marriages at an earlier age. The women are subjected to various forms of discrimination by perfoming child marriages (Sheela & Pattaraj, 2001)

Number of Children

According to the table, a majority (60.42%)of the farm women had 3-4 children. The farm women in Kurnool had more number of children than in Guntur district.

In spite of the publicity of the population control, there are farm women who did not undergo sterilization and who do not know about different family planning methods. It shows that our villages still remain in their darkness without any knowledge about population control. In some of the families males do not accept their wives for undergoing family planning operation. The male members along with females are to be enlightened regarding this issue as most of the decisions are taken by male members of the family.

Farming experience

The table portrays that nearly half (47.08%) of the farm women had high farming experience. Generally, women get married during their adolescence and take up farming responsibilities at early age in rural areas. This may be the reason for the above findings.The results of the studies by Sreedevi (1996), Sailaja (1996) and Reddy (1996) were in conformity with the above study depicting high farming experience.

5.2.2 Personality variables of farm women

Self efficacy of farm women

The results indicated that 38.33% of the farm women had low self efficacy, 29.58% with moderate efficacy and 32.09% with low self efficacy in the present investigation. Self-efficacy, a belief or expectation that one can successfully bring about change, presupposes that women with high expectations are more likely to take risks and persist longer in chosen activities (Bandura, 1977, 1982). The gender studies indicate that rural women in India had been suppressed for a long time due to the patriarchal system leaving little chance to show their potential in social parameters of the existing society. This might be one of the reasons for low efficacy observed in farmwomen as they tend to under estimate their capabilities.The finding drew support from Reddy (1996) indicating low self confidence in farm women.

Self esteem of farm women

It refers to the comprehensive sense of one's own capacity or capability, effectiveness, strength or power to solve the problem and to attain desired results as perceived by the woman herself. The finding revealed that more than half of sample (57.5%) had low self-esteem. This may be due to the low perception and lack of awareness about self of farm women. Their capabilities are generally under estimated and their services are underutilized in rural setup. They are claimed to do menial and low level work. They are not given opportunity for their capacity building. They are not given chance to explore and utilize their skills and abilities to their fullest potential. This might be the reason for low self esteem of farm women.

The finding was in agreement with Reddy (1996), Lalitha *et. al* (2000) and Sudharani (2000) by indicating a low self esteem and self confidence.

Locus of Control of Farm Women

It refers to the degree to which the woman believes that she is the master of her own fate. It is the centre of responsibility for control of behaviour. On perusal of findings, a large percentage of the farm women were using chance as their control factor. Rather than believing self the women were being controlled by extraneous factors. The farm women were believing God or other powerful persons (23.75%) and chance control (60 %) than self control. They feel that fate is the dominating factor in deciding life.

Women are oppressed, powerless, un- initiated, unacknowledged, un recognized and rendered but helpless due to the denial of opportunity, subjugation and suppression (Pandey & Devi, 2000). The male dominated paternal system allows her to survive as secondary member of the family and lower citizen of society. As per the Indian philosophy women is under protection of her father in childhood, by the husband in adulthood and by the son in her old age. Generally the women are not given chance in making family decisions and to show their power in families in the rural set up. The emphasis on improving the daily conditions curtailed the women's awareness and readiness to act against the detrimental conditions of her life.

Hence it is inferred that the farm women should be given chance to take independent decisions and to take control over the resources and conditions for her own welfare and development. The male members of the society should be sensitized regarding the roles and problems of women in the rural society.

Gender role orientation of farm women

It refers to the pattern of masculine or feminine behaviour that characterizes an individual in terms accepted by the particular culture. The gender role is largely determined by one's rearing and may or may not conform to the individual's biologically determined sexual identity. The results indicated that 46.25% of the farm women had feminine traits, 21.25 with masculine traits and 22.5% were androgynous persons with a small sample(10.0%) of un-differentiated category.

The masculine traits, which are more highly valued, suggest competence, rationality and assertion, whereas feminine traits form a cluster of behaviors that suggest warmth and expressiveness (Brovermen et. al; 1972). Further more, there is some evidence that high feminine females sex – typed individuals avoid and are uncomfortable performing cross – sex tasks because cross – sex behavior is incongruent with their sex – role orientation (Bem, 1975). More over, when such individuals perform cross – sex activities, they report psychological discomfort and more negative feelings about themselves.

Farm women grow in rural setting starting from their birth. They acquire certain values, norms, taboos and social restrictions. They learn how to behave with the children of opposite sex starting from their childhood. The farm women are culturally moulded in a feminine vessel to become a good house wife starting from child hood.

The femininity is dominating more because of cultural norms. The farm women learn separate prescriptions for habits, mannerisms and social relations in their up bringing. Certain moral values like silence, sacrifice and sufferance are advocated for women. The traits like

autonomy and initiative are not particularly encouraged in the farm women in a family setting. The masculine women experience conflict and confusion with regard to sex role orientation in traditional role. However the farm women generally have work roles which are congruent with their sex role orientation.

Only certain efficient women who can act purposefully in fulfillment of their roles readily adopt the androgynous qualities. Women can harness their capacity to reduce the stress. The results were in partial agreement with Nezu & Nezu (1987), Long (1989) and Spence & Helmreich (1981) indicating low masculinity in traditional roles.

Physical health of farm women

The findings revealed that a large percentage (59%) of the farm women had poor physical health and majority (75%) had poor reproductive health and a majority had moderate physiological health (83%).

Similar findings were presented by Rajini (1989), Kalyani, (1998), Mrunalini (1999) reporting that. the farm women are exposed to drudgery during their involvement in agricultural operations . During their involvement in farm activities such as spraying, dusting and seed treatment the farm women get exposed directly or indirectly to poisonous plant protection chemicals where such exposure leads to various health hazards like blindness, deformities, diseases of liver and nervous system.

Data indicated that the farm women work longer and harder than men. It is estimated that they walk nearly 40 km while covering one hectare of land while putting the seeds and fertilizers behind the plough. The farm women spend a considerable amount of time and energy to gather fuel. The farm women work in smoke filled kitchens which cause serious health problems for them. Studies indicated that farm women suffer lot of physical and psychological strain which create serious health problems in the long run. They face hardships while transplanting paddy because of continuous bending of back and standing in mud water (Balaguru, 1993). Since they are overburdened with so much work on farm and at home, they continue to neglect their health (Vatsala, 1993). Women continue hard physical labour till the last stage of pregnancy, which is detrimental to the growing baby.

Due to the social taboos and cultural constraints women do not articulate their gynecological and sexual problems. Hence the reproductive health of farm women might be low. Despite the fact that food production has increased over the decades, malnourishment as a major problem remained among the women community of rural India. Women in general have special nutritional needs. But, due to the age-old customs, the women feed the male members first and receive the left over food, which is qualitatively and quantitatively low in

nutritional requirement. They continue to neglect their health due to the economic conditions and poor standard of living. This might be the reason for low health of the women.

It is suggested that the farm women should be provided free health checkups. PHCs should be made available to them through out the day. Female doctors should be appointed in the rural areas for serving the women. The extension workers also should be available to bring awareness among farm women in the field of health and reproductive parameters. The women should be educated in the areas of health, hygiene, family life education and population education. The promotive, preventive and curative health measures should be strengthened through supportive schemes.

The findings had drawn support from the studies of Balaguru (1993), Vatsala (1993) and Mrunalini (1992).

5.2.3 Family process variables of farm women

Family environment of farm women

The results portray that a majority of the farm women had high cohesion, high expression, higher conflicts and high family caring and acceptance in their families. Today with the advent of urbanization and industrialization, the families have fragmented into nuclear families. The qualities like closeness, unity; affection are only seen in the rural families. The family bonds, the kinship ties are still seen in our rural set up and hence the cohesion, expression and caring were found to be more.

The conflicts were found high in the families. The alcoholism of the husbands was widely prevalent in the low socio-economic category, mostly in labourers category. The wives were harassed and beaten for money by their husbands. In some families the domestic violence was common for the causes of maintaining illicit relations with other men or by denying her husband sexually. The husbands had physically assaulted and battered their wives with their hands or with objects. The women had been punched, kicked, beaten and spat at by their husbands. A large percentage of 40.83 fell under poor family environment category, even though some of the family dimensions were found to be good. Both the men and the women should be made aware in the human rights for eliminating the violence for creation of optimum conditions at family level.

Coping strategies of farm women

Results revealed that a large percentage of women were using avoidance strategies in contrast to approach strategies were frequently followed and behavioral strategies in contrast

to cognitive strategies were widely followed by the farming community. The avoidance strategies even though seem to be temporarily solve the crisis may cause detrimental effect by killing the zeal and logical thinking. Most of the women were able to seek guidance followed by logical analysis followed by problem solving and positive reappraisal.

The women seek alternative rewards followed by resignation, emotional discharge and cognitive avoidance. In rural areas, the women generally move in groups. They are active, enthusiastic and help each other at times. They generally cope with their problems by seeking guidance from fellow women. They discuss their problems; they accept their faults, listen to music, celebrate festivals, participate in folk songs and play group games. They have great fear of God and hence perform religious rituals. They feel that fate is the dominating factor in deciding life and thus they visit temples and perform pooja (seek alternative rewards).

The emotional discharge in the ways of crying, scolding, and beating is common. They follow defensive methods to escape from the crisis. Whenever there is a problem in the family they scold and beat the hapless children, to get relief from the stress. The coping methods like visiting friends, neighbours are also a method widely followed. For recreation the farm women depend on radio and television. Burrakathas, Harikathas and Puppet shows are occasionally seen as recreations. It is a known that besides all the role stress they possess, the farm women are born in the villages full of nature, plants, fauna and flora. The natural resources like sun, earth, forest, ponds, canals, green grass and the entire nature, which might have a soothing effect on the farm women to cope their problems effectively and efficiently in relieving them from stress and drudgery. The women seek alternative rewards by enjoying the nature to safeguard from stress by using it as the defensive mechanism. Most of the women beat their children for no reason to avoid stress. They use many defensive mechanisms for escaping from crisis.

Similar observations were reported by Moos (1999) and Pandey and Srivastava (2000), Bhatia (1992) explaining that the projective techniques are adopted by the women to cope with stress.

Support areas of the farm women

Results indicated that majority of the farm women had low instrumental, low information, low service and high socio-emotional support. The composite picture also revealed that they had low support from the society. The results were in the expected direction. Despite various developmental programmes of the State and Central Government towards sustainable development of women, they still face many barriers in utilizing developmental programmes due to the faulty implementation and biases against women. Appropriate structural, functional and institutional measures would be initiated to empower

women and build their capacities and improve their access to inputs such as land, credit, agricultural technology and marketing.

Due to the programmes like DWCRA and self help group mobilization micro credits are now available to the farm women at their doorstep. Efforts should be made by the Governmental / Non Governmental organizations to incorporate gender issues into the developmental agenda and ensure women's full and equitable participation in agricultural development programmes.

The social institutions and their services should be utilized in a maximum level by the farm women. The farm women should be in a position to utilize their abilities to the fullest potential to help themselves. For this purpose, gender sensitization is a must and the technologies must be modified to suit this purpose. Women officers must be employed as extension workers in rural areas who can readily understand the problems of farm women. Planning should be made in imparting support services to the farm women. The small fraction of the needful women should not be neglected for implementing the programmes successfully. The result was in agreement with Cadwell et al (1987), Bharat(1995) & Mukhopadhyay (1999).

5.2.4 Role stress of farm women

Role stress of farm women across different sub systems

A majority of farm women had high role stress in micro (37.08%), exo (37.08%)and macro (35.42%) sub systems. In meso system, a great majority (86.25%) had medium stress.

Micro system is a pattern of activities, roles and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics. Her personality characteristics like age, education, health, socio-economic status and all her personality traits like exposure, awareness, attitude, knowledge, skills, experience, cognition and memory are the added strengths for a women working in a micro system. These variables moderate the role stress arising due to the multiple roles as a breadwinner, child bearer, rearer, decision maker and family manager. As the roles are unlimited with limited resources available to her, the farm woman is prone to higher stress in micro system. The study was in confirmity with the studies by Lalitha (2000), Rana et al., (1994), Malik et al., (1999) stating that the women have poor working conditions, low wages, long working hours and many stresses. The poor socio-economic status, poor living conditions, low income, heavy debts might make the farm woman still prone to stress in her micro system.

With regard to meso system, the role stress was found to be medium (86.25%) The interrelations between different systems with in the reach of women are stronger. The relations between farm and home, neighbourhood and the fellow women, family life and social life are similar and closer for a farm woman. The harmony and balance between different settings may be managed with low difficulty by the woman. Maintenance of inter personal relationships with coworkers, neighbours are attained easily with least efforts. Hence the stress might have been medium in meso system.

With reference to exo system, again the role stress was found to be high (37.08%). The increase in prices, lack of marketing avenues, and unemployment during off-season, natural calamities are the forces impinging stress up on the woman in performance of her roles. Husband's alcoholism and domestic violence seems to be the aspects, which have detrimental effect in performance of her roles.

In case of macro system the role stress was found moderate (35.42%). The farm women had higher discriminations in wages, gender, caste and had strain due to the customs and restrictions of the society. The daily wages earned are forcibly taken away by their men folk for liquor. Women complain that the landlords do not permit them to bring young children to the farm. These might be the reasons for high role stress in macro system. Similar type of stress from macro system has been reported Lehman & Taylor (1987) indicating that the respondents in poor structures were the victims of the earthquake and disaster. The result was in line with Laxmidevi (1984) and Meti et al., (2001) indicating more stress in environment.

Role conflicts of farm women

The farm women had higher role overload out of all the role conflicts. components. Role overload is quite common in Indian farming system, as the woman has to perform multifarious roles. At home, she is burdened with the roles of child rearing, cleaning, cooking, fuel gathering, cloth washing and water fetching. At farm she has to perform all inter-cultural and post harvesting operations. Apart from these, the enterprises of poultry and cattle management are completely managed by the farm women. As the roles are many, the physical fatigue, psychological strain, tensions, burdens are common for a farm woman. Hence the role overload might be high.

The expectations of other family members, in laws, husband, landlords, seem to be high. The farm woman has to satisfy every one and lot of her services is needed at home. Hence the role expectation conflict might be found.

The inter role distance or the difference between roles was found to be medium. The farm woman may feel that the different works at farm may not allow her to spend more time in sharing marital and family pleasures. She also feels that she could not do justice to different roles present in her role set, hence the distance between the roles was found medium.

Role stagnation that there will be no growth in her career was not felt by the farm women. The farm women generally expect a reward of higher yields when they work with commitment. The ray of hope of high returns might be the reason that they did not have any role stagnation.

The self role distance was not found by the farm women. The patriarchal system advocates subordinate status, which confines women to domestic sphere. Certain moral values like sacrifice and sufferance are inculcated in women during their childhood. The women are encouraged to perform their roles however difficult they are. Hence the self role distance was not felt by the farm women.

The farm women had medium role erosion. Lack of independent status, lack of power in decision-making, slavery at home and farm, and least recognition in work might be the plausible causes. The farm women should be imparted knowledge, abilities, skills and they should be mainstreamed into the national population and given prior importance. The success stories must be published and awards should be announced for successful farm women.

The farm women's participation is of crucial importance for national development. With more men moving into off-farm employment, women are increasingly heading farm households and managing farms. Women and men farmers differ in their behaviour. Hence, the psychological characteristics like role conflicts, role stress of women farmers must be understood to develop appropriate strategy for reaching them. This type of gender analysis helps to meet the challenge. The result was in conformity with Tharakan (1992), Pareek and Mehta (1997) and Mathur (1997) indicating that the women had higher role conflicts.

5.2.5 Comparative Study of Farm Women

a. Comparison of Personality Variables of Educated and Uneducated Farm Women

The comparative analysis shows that the educated and uneducated women have significant differences in their personality traits. Educated sample have high scores of self-efficacy, self-esteem, locus of control, and androgyny compared to uneducated farm women. This signifies that the education increases the capacity, capability and efficiency of the women. The educated women act independently, convince the people, and make alternative arrangements to get the things done. The self-efficiency and the capabilities to solve the problem may be high for them. They have better control over resources and have good knowledge to tackle the problems. This might be the reason for the high scores for the educated sample.

b. Comparison of Coping strategy Variables of Educated and Uneducated Farm Women

The logical thinking and positive appraisal were fund to be higher for the educated farm women. This shows that approach methods were followed by the educated farm women compared to uneducated farm women. The educated women use a different strategy apart from the uneducated sample. The uneducated women generally escape from the situation and try to transmit the stress on children and others.

c. Comparison of Role Stress of Educated and Uneducated Farm Women

The educated women were found to have low stress in the systems like micro, exo and macro sub systems. This indicates that the role stress was found to be low for educated women in three sub systems of ecology. The micro factors like agricultural, household, biological, economic and social dimensions were found to be better for educated women.

The educated woman plans her work properly, thinks alternative solutions for reducing the work, delegates the work to the co- workers and gets the things done easily and thus she is a good farm and home manager. While coming to the exo and macro systems the farm women had low role stress because the educated farm women can act intelligently, react to the situation, take decisions during problems, utilize the resources well, can easily balance the situation and face the challenge of social problems. The perceptual differences may also exist. The illiterate women generally possess some of the beliefs and they feel more troubled for the same problem.

d. Comparison of Personality variables of Cultivators and Wage Workers

The cultivators differed from wage workers in different traits of self-efficacy, locus of control and androgyny. Generally cultivators are from educated category and have additional capabilities and have fewer problems as they are endowed with higher capacities and thus have high self-efficacy and other personality factors.

e. Comparison of Coping Strategies of cultivators and wageworkers

The comparison of coping strategies reflects that the cultivators had high guidance and support as they are from high-income group. The people with better socio economic status get good support and guidance. In villages, generally women from large holdings are educated and from higher income group. The extension workers and the state officials choose this particular group and provide guidance and support in many areas. The other disadvantaged wage workers still remain as the wage workers and have least access to resources.

f. Comparison of Role Stress Across Subsystems (Cultivators and Wageworkers)

The cultivators were found to have low stress in all the systems of micro, meso, exo and macro sub systems. This indicates that the role stress was found to be low for cultivators in three sub systems of ecology. The micro factors like agricultural, household, biological, economic and social dimensions were found to be better for cultivators as they had high material possession, lot of facilities, control and command over the human resources of wage workers.

The cultivators had pucca, well planned houses, planned kitchen, high material possession, household and farm implements, municipal water facility, fuel wood and electricity connections. She easily pools up the resources, plans her work properly, thinks alternative solutions for reducing the work, delegates the work to the co- members and gets the things done easily. Generally the cultivators are the better farm managers. While coming to the exo and macro systems the farm women had low role stress because of the high support. They are not affected by the wage disparities and face the challenge of social problems.

5.3 Relationship analysis of selected characteristics and the role stress of farm women

This section gives the nature of relationship observed between demographic factors, personality components and the processes of farm women and their role stress.

5.3.1 Relationship between selected demographic characteristics of farm women and their role stress

Age and Role stress

Age had a positive and significant relationship with the agricultural role stress ((r = 0.1710). As the age increases, the woman participates more actively in the farm related matters till her old age. The burdens and responsibilities will also be increased along with the age. This might be the reason for increased role stress in agricultural aspects. The study conducted by Bhaskar, 1986; Bhandarker and Singh, 1986; Srivastava, A.K, 1993; Fernandes and Murthy, 1989; Thomas et al., 2000 were in line with the above study.

Age had a non-significant relationship with the other aspects like household role stress, biological role stress, economic role stress, social role stress, micro system role stress, meso system role stress, exo system role stress, macro system role stress, over all systemic role stress and the role conflicts. The non-significant relationship between age and the areas of role stress is not surprising. Many of the extension and psychological studies have shown that the age of the women does not really matter in the areas of role stress. Observations made by Surti(1982), Singh et al. (1983), Apte(1984) and Gupta(1989) were in line with the above study indicating that age had no significant relationship with stress factors.

The studies conducted by Holmes and Masuda, 1974; Sen, 1981; Gupta and Murthy, 1984; Khanna, 1985; Kumari & Prakash, 1986; Srilatha, 1988; Dwivedi, 1989; Jamuna & Usha Sree, 1990; Chaudhary, 1990; Pandey, 1997; Srivastav, 1997 were found that there was a negative and significant relationship between age and the role stress indicating higher stress in lower age groups.

Education and Role stress

Education had a negative and significant relationship with different components of role stress. Agricultural role stress, household role stress, social role stress, micro system role stress and the overall systemic role stress, economic role stress, exo system role stress, macro system role stress and the role of conflicts were different factors found to have negative relationship with education.

Education opens avenues to the women to learn many things. Education enhances knowledge abilities and skills. Education makes the woman stronger by changing her

attitudes. Educated women learn to think effectively, to deal efficiently and to act purposefully. The micro system aspects like farm management, household management, economic productivity; social relationships will be managed in a more efficient way by educated farm women. She may possess the knowledge about the marketing avenues, the rising prices and seasonal alternative plan of employment.

The studies conducted by Bhaskar (1986), Shirali & Bharti (1986) and Dwivedi (1989), and Sadangi, Mishra & Patel (1996) were in accordance with the above study indicating the negative and significant relationship between education and the role stress.

There was no significant relationship between education and the role stress components like biological role stress and the meso system role stress. This might be due to the reasons that the women's biological role stress about family is similar however educated she is. The farm women have to bring up their children, work for the family goals, care for the husband's needs. As the investigated sample of farm women possess young children, the anxiety, tensions and strain are similar for all the farm women. Hence there was no relationship between education and the biological role stress.

The interrelationships between the settings are closer in a rural atmosphere. Handling different settings, exchanging the information, maintenance of interrelationships are common for the farm women irrespective of education. Apart from this reason, the educated women are not motivated to participate in self-help groups, Janmabhoomi programmes, and other DWCRA programmes. The illiterate farm women are on par with the educated sample by showing more interest to participate in Janmabhoomi and other Self Help Group programmes. This might be the reason for non-significant relationship between education and the meso system role stress.

The study by Surti (1982) and Ahmed et.al (1985) was in line with the above finding indicating the non-significant relationship between education and the role stress.

Caste and the Role stress

The caste was found to have a negative and significant influence on many components of role stress in the areas; agricultural role stress, economic role stress, social role stress, micro system role stress, exo system role stress, macro system role stress, and overall systemic role stress.

Generally the large holdings farm women are from high caste group. They have high material possession, high economic holdings and higher socio-economic status. As the socio-economic level increases, the farm women are likely to enjoy certain materialistic farm implements and comforts which may reduce the role stress. The exo system stress like unemployment, high prices, and marketing lacunae will be less for a high caste group. The macro forces like caste discriminations, wage discriminations and total systemic stress are

high for a low caste group. Hence there was a negative relationship between caste and the role stress.

The caste was not found significant with household role stress, biological role stress, meso system role stress, and the role conflicts. It is quite reasonable. The farm woman works harder and longer irrespective of her caste in taking care of her husband and children. The biological role stress, and meso system role stress are similar for all the farm women to which ever caste she belongs to.

Studies emphasized that increased caste status reduced the time spent in agriculture (Sadangi, Mishra & Patel, 1996).

Income and Role stress

The income was found to have significant relationship with agricultural role stress, household role stress, economic role stress, social role stress, micro system role stress, exo system role stress, macro system role stress, total systemic role stress, and biological role stress.

The stress in rural areas might be around the economic reasons. As the income increases, a woman's purchasing capacity increases and in turn the farmwomen enjoy slightly higher socio-economic status. That might be the reason for low stress for high-income group. The exo system role stress, macro system role stress might not be felt by the farm women of high income group. If farm women have all the necessities and comforts, she would feel more happy and may not feel and think about the stress problems.

The studies by Sen (1981), Srivastava and Srivastava(1985), Shirali and Bharti (1986), Bhaskar(1986), Jasmine(1987) and Dwivedi(1989) were in conformity with the above findings indicating negative relationship between income and the role stress. However in a very few studies, income was found to be unrelated to the role stress among executives (Ahmad et al., 1985 and Apte, 1984)

The meso system role stress and the role conflicts were not found to be significant with income. The meso system role stress is similar for all the women irrespective of their income. The role conflicts felt by the farm women do not depend on the income. This might be the reason for non-significant relationship between income and the role conflicts.

Land holding and Role stress

There was a significant relationship between farm size and the role stress were found to be significant in the areas of agricultural role stress, economic role stress, social role stress, micro system role stress, exo system role stress, macro system role stress and overall systemic role stress.

The relationship is quite reasonable. Generally the land holding, income and socio economic status are interrelated. The higher income group possesses high acreage of land. The higher the status, the greater is the tendency to solve problems through one's own efforts, probably because of the power and authority the position confers. The farm women of high category generally have less role stress than the women from small and marginal groups.

The household role stress, biological role stress and the role conflicts were found to be non significant with the land holding. It is known fact that biologically women possess similar characteristics. The women are totally indebted and dedicated towards their families. The role conflicts are similar for the role occupants as the roles are similar. Hence there was found a non-significant relationship between land holding and the household role stress, biological role stress and the role conflicts.

Material possession and Role stress

There was a negative and significant relationship between of material possession and economic role stress, social role stress, micro system role stress, exo system role stress, agricultural role stress, household role stress, and meso system role stress.

It is a known fact that the higher socio-economic conditions give greater purchasing power generally own material possession. They purchase more farming implements, which can reduce the agricultural role stress to certain extent. They take the position of landladies and supervisors who can supervise and get the work done by their labourers. As the material possession increases, the household role stress gets reduced as the farm women starts to buy a gas cylinder, television, tape recorder, two wheeler, etc. Increased equipment makes the woman to perform her household tasks easily. The economic stress is also low for them because the women who have good economic position and those who can afford only can buy the equipment. In rural areas, the landladies and landlords have higher social influences. They have large social circle and due to this the social role stress might be low for these women. They can balance the meso system well and utilize the support services present in the exo system. They know well how to market their products and can bear the increased prices and make use of the government policies.

There was non-significant relationship between the material possession and the areas of stress like biological role stress, macro system role stress, systemic role stress and the roles conflicts. The material possession may not explain and relate to the processes like biological role stress, macro system role stress, systemic role stress and the role conflicts. This might be the reason behind non-significant relationship.

The socio-economic status and the role stress components agricultural role stress , household role stress, economic role stress, social role stress , micro system role stress, exo system role stress, macro system role stress, and total systemic role stress, and socio-economic status were found almost significant.

The high socio-economic women do not have economic barriers. The lack of economic constraints makes the women to reduce her stress in all the other spheres of micro system, exo system and the macro system. The studies conducted by Sharma and Dubey (1977) and Bharti (1986) were in line with the above findings.

The biological role stress and the role conflicts were not found significant with the socio-economic status.

Family type and Role stress

There was a positive relationship between family type and household role stress, and role conflicts and a negative relationship between family type and biological role stress indicating the low role stress in joint family system.

In a joint family system, there may be some elderly person or some other caretaker who will be readily available at home to look after the younger children. One or two women who guard the house do the household work while the other women attend their farm work. She also protects and takes care of the children. Due to the work delegation between family members there might be low biological stress for a farm woman. This might be the cause of relationship between family type and the biological role stress.

There was a positive and significant relationship between the family type and the household role stress and the role conflicts. In a joint family system, the family size is large and the household work is unmanageable. If the number of women present in the family is not proportionate to the family size, then the household stress will be more. The role conflicts like role overload and the role expectations are higher and there by the increased role conflicts were seen in a joint family system.

The study by Gupta and Murthy (1984) was in concurrence with the above study indicating that the role stress and the role conflicts are higher in joint family system.

All the other components like agricultural role stress, economic role stress, social role stress, micro system role stress, meso system role stress, exo system role stress, macro sytem role stress and the systemic role stress were not significantly related to the family type. The study by Apte (1984) revealed similar finding that family type is non significant with the role stress. The study by Gupta (1989) revealed that there was negative and significant relationship between family type and the role stress indicating more stress in nuclear family system.

Family size and Role stress

There was a negative and significant relationship between family size and the biological role stress, and positive correlation between family size and role conflicts. In joint family system as the size increases, there will be some caretaker to look after the young children; hence the biological stress was found to be low.

There was a positive and significant relationship between the family size and the role conflicts. The role conflicts increase along with the family size. The expectations, the over load inter role distance will be increased and hence the role stress will be high in a large size family. The study by Sen (1981), Bhaskar (1986), Bhandarker and Singh(1986) were in line with the above study indicating a positive relationship between family size and the role stress.

All the other components like agricultural role stress, household role stress, economic role stress, social role stress, micro system role stress, meso system role stress, exo system role stress, macro system role stress, and the systemic role stress were found not significant with family size.

Marital status and Role stress

The marital status was negatively and significantly related with various components like household role stress, economic role stress, micro system role stress, and exo system role stress. As the women are married and living along with their partners the stress will not be perceived as long as they have some one to share with.

Generally the women who are separated, widowed or deserted will perceive the stress in a negative angle. They feel that there is no other family member to share their problems. The studies by Cooper and Davidson (1982) and Bhaskar(1986) were in support with the above study indicating that marital status has a significant impact on the role stress.

The study conducted by Surti and Sarupria(1981) indicated that married women are stress prone than the unmarried sample.

The other components like agricultural role stress, biological role stress, social role stress, meso system role stress, macro system role stress, systemic role stress and the role conflicts were non significant with marital status. The study by Ahmed et.al (1985) Shejwal and Ram (1983) and Shenoy (1987) were in line with the above study indicating that there was no significant relationship between marital status and the role stress.

Age at marriage and Role stress

There was a negative and significant relationship between marital age and the components biological role stress, and the role conflicts and the micro system role stress. If

the age at marriage is high, then the women will be more matured, can resolve the marital and role conflicts in an easier way. Biologically, they are prepared and tension free to bear the stress. This might be the reason for the negative relationship between age at marriage and the role stress.

All the other components like agricultural role stress, household role stress, economic role stress, social role stress, meso system role stress, exo system role stress, macro system role stress, systemic role stress were found non significant with the age at marriage.

Number of children and Role stress

The components household role stress, biological role stress, social role stress, and exo system role stress, and the role conflicts were found to be correlated positively with the number of children.

The sample consisted of the mothers having pre school age children. The farm women have to utilize more time, energy and effort towards the children who are very young. Naturally the stress will be higher. The studies conducted by Gupta and Murthy(1984) , Gauba(1985), Wortman(1991) and Radhika(1999) found a negative relationship between the child's age, number and the role stress.

The economic role stress, meso system role stress, macro system role stress, were found to be non significant with the number of children. Apte (1984) also found that there was no significant relation between children's age and the role stress.

Farming experience and the Role stress

There was a negative and significant relationship between farming experience and different role stresses like agricultural, micro system role stress, and exo system role stress. Generally the women with high farming experience are likely to adjust well in the crisis situations and sudden demands. They have a fore sight of calculating the intensity of crisis in advance. They are quite experienced and hence better managers in farming, economic, social and other exo systemic aspects. They can find several solutions to get rid off the crisis. That might be the reason behind the relationship between farming experience and the role stress. The studies conducted by Surti (1982), Bhaskar (1986), Dwivedi (1989) revealed significant relationship between farming experience and the role stress.

The household role stress, biological role stress, meso system role stress, macro system role stress, systemic role stress and the role conflicts were not significant with the farming experience. The study conducted by Ahmed et.al (1985) was in accordance with the above finding indicating the non-significant relationship between experience and the role stress.

5.3.2 Relationship between selected personality components and the role stress of farm women

Self efficacy and Role stress

There was a significant and negative relationship between self efficacy and the areas of role stress namely agricultural role stress, household role stress, biological role stress, economic role stress, social role stress, micro system role stress, meso system role stress, exo system role stress, macro system role stress and overall systemic role stress.

The self efficacy of a farm woman would strengthen the determination to forge ahead of others in adopting new technologies, utilize the available resources at her command resulting in increased capacity, capability and in turn reflecting in decreased stress parameters. The self efficacy makes the woman feel that she is second to none and does not care for the remarks and negative criticism of the fellow women, which results in the low stress ultimately. This might be the reason behind the relationship between self efficacy and the role stress.

The findings of Kumar (1994), Reddy (1996) and Long (1989) were in consonance with the above study indicating that efficacy has strong influence on deceasing the role stress of women.

Self esteem and Role stress

Self-esteem had a significant and negative relationship with the role stress of farm women. The agricultural role stress, economic role stress, social role stress, micro system role stress, exo system role stress, macro system role stress, systemic role stress and role conflicts were found to have a negative relationship with the self esteem.

The women with high self-esteem can evaluate their strength optimistically in performance of their roles. They have high self-confidence, strong determination and they try to exhibit their excellence in farm activities and household roles .The strong will power makes the woman perceive the good side of the situation even during the period of stress. She can think of several solutions for one problem. The extraordinary power in taking firm decisions makes the woman feel better by reducing her stress levels. The observations made by Geller (1995), Singh (1998), Sen (1999), Thomas & Vindhya, (2000) were in concurrence with the above finding indicating that stress is high in women with low self esteem.

The self-esteem had a non-significant relationship with the variables namely household role stress, biological role stress, meso system role stress. The observations made by Thomas and Vindhya (2000) were in concurrence with this case indicating no significant impact with the self-esteem of the middle class women.

a) Individual control and Role stress

The locus of control (IC) was negatively significant with the role stress components namely The correlation coefficients were found to be negatively significant at 1 percent level in cases of agricultural role stress, household role stress, biological role stress, social role stress, micro system role stress, exo system role stress and the role conflicts.

It is obvious that the farm women with high internal locus of control have the tendency of controlling the environment by converging and taking control over the resources. She tends to look at the basket full of choices or technologies and farming systems available and choose the most appropriate, relevant and feasible ones to improve her performance, which in turn reduces her role stress. This might be the cause for negative relationship between locus of control and the role stress.

The studies conducted by Chandriah et.al (1996) and Mala (1997) were in line with the above findings indicating the women having high internal locus of control have higher job satisfactions. Similar observations were reported by Storms and Spector (1987) explaining that internals are unaffected by the experience of frustration at work. A few components of role stress namely economic role stress, meso system role stress, macro system role stress, and the systemic role stress were found to have no significant relationship with internal locus of control (IC).

b) Locus of control (Powerful others) and Role stress

The role stress areas namely exo system role stress, the macro system role stress, and the economic role stress were found to be negatively significant with the locus of control (PC). The studies by Shejwal (1984b) and Bhandarkar & Singh (1986) Mathur (1997) confirmed the similar results.

The studies by Marino and White (1985) were not in consonance with the above findings revealing that the externals have high distress where as internals have low distress.

Many components of role stress namely agricultural role stress, household role stress, biological role stress, social role stress, micro system role stress, meso system role stress, systemic role stress and the role conflicts were found to be non significant with the external locus of control. Pestonjee and Singh (1981) and Kaur and Murthy (1986) found that there were no significant differences with regard to locus of control and role stress dimensions.

c) Locus of control (Chance control) and Role stress

The role stress areas namely economic role stress, social role stress, and the exo system role stress were negatively significant.

The women with chance control generally expect the chance to take a control over them. They generally believe the chance, luck or fate than their inner capacities. They expect that their life is controlled by others. They wait for fortune and expect something to happen suddenly during the time of crisis. They do not believe their own capacities. Hence their stress parameters might be higher than the individuals with internal locus of control. The study by Mathur (1997) was in line with the above study.

Health and Role stress

Health was negatively significant with the role stress components namely agricultural role stress, household role stress, micro system role stress, systemic role stress and the role conflicts.

The healthy woman generally converges all her physical, mental and monetary efforts to put into farming and related activities. She puts her heart and soul in her profession resulting in increased income, which reduces her stress psychologically. The healthy woman works towards her goals and finds satisfaction after fulfilling them. This might have lead the healthy women to have low role stress.

Similar findings were observed by by Everly(1989), Matteson & Ivancerich(1987), Jagadish and Srivastava (1983), Srivastava(1991), Bauer et al.(1992), Ryan and Morrow(1992), Black et al.(1993), Rothman & Weintraub(1995) which were in concurrence with the above study indicating the moderating effect of health in reducing the occupational stress of female employees.

Gender role orientation and Role stress

a) Femininity and Role stress

Femininity had a positive and significant relationship with the role stress in the areas namely agricultural role stress, household role stress, biological role stress, micro system role stress, macro system role stress, overall systemic role stress and role conflicts.

Our Indian culture has given our women a place in society- of tolerance, self-sacrifice. The females are biologically vulnerable to stress, as they have to accomplish innumerable roles. Genetically they are endowed with higher capacities in understanding, sharing and cooperation in fulfillment of affectionate and biological needs. Their services are needed for one and all in the family, especially in rural set up. The females that scored high in feminine traits might have more stress due to their readiness to respond to the needs of others than their self needs and necessities. The women generally have the tendency to allocate their entire time towards the fulfillment of the needs of their family members. They also have a

tendency to suppress their needs and under estimate their capacities. This might be the reason for relationship between the femininity and role stress.

b) Masculinity and Role stress

The economic role stress, exo system role stress, social role stress and meso system role stress were positively significant with masculinity. The farm women with high masculinity have the traits of ambition, assertiveness and independence. They also may possess stress in particular areas where they might not be able to satisfy their inner selves in fulfillment of their roles. Especially in the spheres of social and economic roles these women may have some insecurity, which puts certain pressure up on the women. Hence there found a positive relationship between masculinity and the role stress. The studies conducted by DeGregorio & Carver (1980), Olds& Shaver (1980), Terborg(1985), Nezu & Ronan(1985), Nezu and Nezu(1987), Terborg(1985) and Long(1989) were concurring with the above study.

Androgyny and Role stress

All the role stress components biological role stress, economic role stress, social role stress, exo system role stress and the systemic role stress were negatively significant with androgyny.

The androgynous persons generally have both the characteristics of femininity and masculinity, which has the advantage of overcoming the problems and to take advantage of both the traits. These women generally make use of their capacities like intelligence, adaptability enterprising and innovative qualities. They generally exhibit their excellence in the activities. This strong urge towards achievement might have resulted in gaining more knowledge. These women generally are highly innovative, have the potential to market their products and get high remunerative prices for their products. They make use of the available resources resulting in high performance and in reduction of their role stress. Similar observations were reported by Deigo (1980), Chandraiah et.al. (1996) and Pestongee, (1999).

5.3.3 Relationship between family processes and the role stress of farm women

Family Cohesion and Role stress

Family cohesion was negatively significant with role stress areas namely household role stress, biological role stress, micro system role stress, exo system role system and the systemic role stress, agricultural role stress and the social role stress.

When the family environment is enriched with the elements of cohesion, warmth and affection, the personal and psychological needs of the individuals are readily met and the individual works for the other higher needs as per Maslow's theory. The farmwomen having good family environments generally have low stress. Hence there is found a relationship between cohesion and the role stress.

Family Expressiveness and Role stress

Expressiveness was negatively significant with the areas namely agricultural role stress, household role stress, biological role stress, social system role stress, micro system role stress, exo system role system and the overall systemic role stress, meso system role stress and the role conflicts. Only two areas economic role stress, and macro system role stress were not significant with expressiveness.

Generally women having good expressiveness learn more knowledge and abilities due to their frequent expressiveness and verbal interactions in the family. They learn more skills from their male counterparts present in the family. They learn to live better by improving their conditions as they express and get more warmth and security in the family. Hence there found a negative relationship between expressiveness and the role stress. The study by Sehgal (1991) reported similar type of results.

Family Conflict and Role stress

Except meso system role stress, all the areas were found non significant with the conflict in the family. Generally the individuals having higher conflicts in the family may worry and think over those problem centered issues. The expressed conflicts in the family may have some deleterious effects on role performance of the women, which makes the women to perceive increased role stress in meso system. In many rural families it was observed that the women are treated as a possession like property. Atrocities and incidents like wife beating and bride burning were observed in some of the cases. Government has to take initiative and preventive measures to condemn the violence on women and girl children.

Family Acceptance & caring

Many of the components namely agricultural role stress and the micro system role stress, biological role stress, social role stress, exo system role stress and the role conflicts were found to have negative and significant relationship with the role stress.

The farm women who have good acceptance & caring in their families do not worry about their personal problems. They have higher security feeling, warmth and acceptance. They reap windfall profits by their industry. They work towards family goals, which in turn maximize their farming productions, and in reducing their role stress.

Total Family Environment and Role stress

The role stress areas namely agricultural role stress, the biological role stress, social role stress, micro system role stress, exo system role stress and the overall systemic role stress were found to have negative and significant relationship with the family environment. Generally the women with supporting family environment have positive behavioural outcomes. They participate in extension activities, able to come in contact with the agricultural scientists, other progressive farmers and gain first hand information by exchanging the ideas with them. Since "seeing is believing", the farm women will straight away adopt the feasible technologies by increasing their farm income. The family acts as a vital agent in improving her farming performance and by reducing her role stress.

Coping and Role stress

Coping (approach) and Role stress

Coping was negatively significant with all areas of the role stress: agricultural role stress , household role stress, biological role stress , micro system role stress, exo system role stress and the overall systemic role stress , social role stress, macro system role stress, and the role conflicts were found to be negatively significant.

Coping is a constantly changing behavioural effort to manage specific external and internal demands. The individuals having higher coping abilities adapt to the new situations very easily. They make adjustments to the new demands and challenges evolving from the situations. These women could become highly rational in thinking and judicious in their behaviour. They make attempts to approach the cosmopolite sources of information and broaden their outlook. They are accurate and realistic in their predictions. They can make alternative solutions for their problems. They have the ability of recovering from the state of failures. This ability might have led the women in reducing their role stress.

The studies conducted by Schnitter(1990), Esteves(1990), Guelzow(1991), Dharitri(1996), Moos and Moos(1999), Pandey and Srivastava(2000), Swarnalatha(2000) were in consonance with the above findings indicating that coping has a pivoting role in reducing of stress parameters.

b. Coping (Avoidance) and Role stress

Coping (Av) was negatively significant with the role stress areas namely exo system role stress, macro system role stress, biological role stress and the social role stress.

The strategy of coping may certainly relieve the individual from pressure or burden of role stress. The avoidance strategy relieves the individual from tension and anxiety

temporarily but inculcates the strain in the long run when there will be no chance of avoiding certain situation. The avoidance strategy makes the individual escape from the situation rather than making the individual strengthy and stubborn. This might be reason for negative relationship with few areas and insignificant relationship with large areas of role stress.

Support and Role stress

The social support was found to be negatively significant with many role stress areas namely agricultural role stress, house hold role stress, biological role stress, economic role stress, micro system role stress, exo system role stress, macro system role stress, systemic role stress, role conflicts, social role stress and meso system role stress.

The social support provides a basis for enhancing the knowledge, abilities, attitudes, skills and resources. The social support pushes the individual towards success by rendering instrumental, informational, and socio-emotional and service oriented help.

Innumerable studies have shown that social support is linked with psychological and mental health outcome of the individual. Lack of positive and social relationship leads to negative psychological states such as anxiety and depression. Large social networks provide persons with regular positive experiences and a set of socially rewarding roles in the community which increases a sense of predictability and stability in one's life situation and a recognition of set-worth.

The studies by Cohen and Wills (1985), Cowen et al.(1991), Srivastava, (1991), Haines et al.(1991), Sehgal (1991), Bauer et al.(1992),Ryan & Morrow (1992), Kessler et.al.(1992), Vetkovic and Koslow(1994), Nathawat and Rathore(1996), Sargent and Terry(2000) & Nathawat(2000) were in agreement with the study indicating that social support had buffering effects on reducing the stressful life events.

Contradictory results were reported by Daga (1997) indicating a positive relationship between social role stress and the social support.

5.3.3 Relationship between different subsystems of role stress

Almost all the subsystems have significant correlation values with each other except meso- macro combination (Table, 4.19). This shows that the role stress present in all the sub systems is having correlation with each other.

Generally the stress present in each subsystem is the result of the stress originating at higher level and is the result of the synergic effect of the macro system carried forward which penetrates deep in to the innermost micro system. The culture predisposes certain values and believes on the individual to behave in a particular manner. Role is a position occupied by the woman and is the result of the expectations of the society contiguous to an individual. Every role is influenced by the different factors present in the surrounding systems.

Meso system involves a translucent system where the interactions are not much distinctive between the subsystems. The macro system may not have a significant correlation with meso system for explaining the interactions between different subsystems present in the meso system. This might be the reason behind this phenomenon of absence of correlation between meso system and macro system.

5.4 Comprehensive Relationship Analysis:

The comprehensive relationship analysis shows that all the sets of variables were entering into a definite kind of relationship with the dependent variable, role stress.

Correlational Analysis :

- The demographic variables; income, education, socio economic status, landholding, number of children, and farming experience were having a positive impact in reducing the role stress.
- The personality variables self-efficacy, self esteem, locus of control (IC), locus of control (PC), physical health and, androgyny were found to have a tremendous effect in reducing the role stress of the farm women.
- The family environment variables cohesion, expressiveness had relative and significant impact in reducing the role stress of the farm women.
- The coping (approach) and support were found to be highly significant in reducing the role stress of the farm women.
- Almost all the role stress areas had high correlation among them. Meso system did not have a significant correlation with macro system as the role stress areas of meso system differ in their nature and functions with macro system.

Thus based on the results it can be concluded that the relationship analysis shows a significant correlation between different set of variables under different areas of role stress.

Multiple regression analysis :

In order to know the interaction and intensity of the relationship, the multiple regression analyses of selected variables has been carried out, the results of which were discussed below.

The results of the multiple regression show that the demographic variables education, income, landholding, and socio economic status were found to have significant regression coefficients among all the subsystems except in meso system and role conflicts. All the demographic variables together did explain about a substantial percent of variation in the role stress of farm women in all the sub systems except in meso system. Education, income and

socio economic status have a profound and significant impact as they are the crucial variables in reducing the role stress of farm women.

The multiple regression was carried out for all the personality variables and family environment variables together as all the variables were linked together. The results have shown that the variables self efficacy, locus of control (IC), androgyny, health, family expressiveness, coping and support were found to be the maximum contributed variables and had significant regression coefficients in all the systems. The variable, family conflicts was found to affect the role conflicts.

Micro System :

The micro system role stress had significant correlation with the variables education, caste, income, landholding, material possession and socio economic status(SES) , marital status, age at marriage, number of children and farming experience (Table 4.17). The personality variables; self-efficacy, self esteem, locus of control (IC), health, femininity and androgyny had significant correlation coefficients (Table 4.21). The family variables cohesion, expressiveness, acceptance and caring, family environment, coping and support had significant correlation coefficients (Table 4.22).

The micro system role stress had significant regression coefficients with the variables education, income and socio economic status (SES) (Table 4.23). The personality and family variables self-efficacy, coping and support had significant regression coefficients (Table 4.25).

The micro system role stress had predicted the demographic variables of education, income, land holding, SES, farming experience as most influential variables at the end of step down regression analysis (Table 4.24). The self-efficacy, locus of control (IC), health, expressiveness, Coping (Ap) and support had maximum contributed personality and family variables to role stress (Table 4.26).

The path analysis (Table 4.27) of micro system shows that the variables SES, support and coping were found to have substantial direct effects. Indirect effect is exerted by coping, farming experience and education. The path line of the variables shows a surprising effect. The education is passing through self efficacy, SES is passing through health, Farming experience through locus of control (IC), Self efficacy through support, Self esteem through coping, Locus of control through coping, health through coping, androgyny through coping, family environment through support, coping through support and the support through coping. It is understood that the variables other related variables as intermediate variables leading to the dependent variable.

Meso System :

The meso system role stress had significant correlation with the variables; material possession and SES (Table 4.20). The personality variables self-efficacy, masculinity and androgyny had significant correlation coefficients (Table 4.21). The expressiveness, family conflict and support were the family variables that had significant correlation coefficients (Table 4.22).

The meso system shows that there is not even a single variable that had significant regression coefficient (Table, 4.23). Personality variables did not have significant regression coefficients (Table 4. 25).

The SES is the only variable that shows a significant contribution in the step down regression analysis of role stress (Table 4.24). The personality and family variables self efficacy, masculinity, androgyny, expressiveness and support had their maximum contribution in the step down regression analysis (Table 4.26).

The path analysis (Table 4.28) of meso system shows that the variables SES, self-efficacy and self-esteem had their substantial direct effects. Indirect effect is exerted in the order of androgyny, self-esteem and support. The path line of the variables shows a reasonable effect. The education is passing through self esteem, SES is passing through education, Farming experience through androgyny, Self efficacy through coping, Self esteem through androgyny, Locus of control (IC) through self efficacy, health through coping, androgyny through coping, family environment through self esteem, coping through support and the support through coping. It is understood that the variables select different selective paths through which the intermediate effect is seen leading to the dependent variable.

Exo system :

The exo system role stress had significant correlation with the variables education, caste, income, landholding, material possession, SES, marital status, age at marriage, number of children, and farming experience.(Table 4.20). The personality variables self-efficacy, self esteem, locus of control (IC), locus of control (PC), locus of control (CC), masculinity and androgyny had significant correlation coefficients (Table 4.21). The family variables cohesion, expressiveness, acceptance and caring, family environment, coping and support had their significant correlation coefficients (Table 4.22).

The exo system shows that caste and SES had significant regression coefficients (Table, 4.23). The personality and family variables self-efficacy, masculinity, androgyny, coping and support had significant regression coefficients (Table 4.25).

The caste, SES, family size and marital status were the variables that showed a significant contribution in the step down regression analysis of role stress (Table 4.24). The

personality and family variables self-efficacy, self esteem, androgyny, coping and support had their maximum influence on the exo system role stress (Table 4.26).

The path analysis (Table 4.29) of exo system shows that the variables SES, locus of control and education had substantial direct effects. Maximum indirect effect is exerted by self-efficacy and androgyny. The path line of the variables shows a surprising effect. The education is passing through self esteem, SES is passing through support, Farming experience through coping, Self efficacy through education, self esteem through self efficacy, Locus of control through androgyny, health through coping, androgyny through coping, family environment through coping, coping through support and the support through coping. It is understood that the variables select different paths leading to the dependent variable.

Macro System :

The macro system role stress had significant correlation with the variables education, caste, income, landholding and SES. (Table 4.20). The personality variables self efficacy, self esteem, locus of control (PC), femininity and androgyny had significant correlation coefficients (Table 4.21). The family variables coping (Ap), coping (Av) and support had their significant correlation coefficients (Table 4.22).

The macro system shows that education, caste and SES had significant regression coefficients (Table, 4.23). The variables self-efficacy, self esteem, coping (Ap) and support had significant regression coefficients Table 4.25).

The education, caste, land holding, SES and family type were the variables that had a significant contribution in the step down regression analysis of role stress (Table 4.24). The personality and family variables self-efficacy, self esteem, femininity, coping and support were found as maximum influencing variables.

The path analysis (Table 4.30) of macro system shows that the variables SES, education, and self-efficacy had substantial direct effects. Maximum indirect effect is exerted by education, self-efficacy and support. The path line of the variables shows a surprising effect. The education is passing through coping, SES is passing through health, farming experience through androgyny, Self efficacy through support, self esteem through coping, locus of control through education, health through coping, androgyny through locus of control (IC), family environment through self esteem, coping through education, and the support through SES. It is understood that the variables select different paths leading to the dependent variable.

Overall Systems :

The overall systemic role stress had significant correlation with the variables education, caste, income, landholding, SES and number of children. (Table 4.20). The

variables self-efficacy, self esteem, health, femininity and androgyny had their correlation coefficients (Table 4.21). The family variables cohesion, expressiveness, family environment, coping (Ap) and support had heir significant correlation coefficients.

The systemic role stress shows that education, caste, income and SES had significant regression coefficients (Table, 4.23). The variables self-efficacy, coping (Ap) and support had their significant regression coefficients (Table 4.25).

The education, caste, land holding and SES were the variables that had a significant contribution in the step down regression analysis of systemic role stress (Table 4.24). The variables self-efficacy, self esteem, family cohesion, coping (Ap) and support had their maximum contribution towards role stress.

The path analysis (Table 4.31) of systemic role stress shows that the variables; support, coping and androgyny. Maximum indirect effect is exerted by SES, education, and family environment. The path line of the variables shows a surprising effect. The education is passing through self efficacy, SES is passing through support, farming experience through coping, self efficacy through self esteem, self esteem through locus of control(IC), locus of control through self esteem, health through SES, androgyny through coping, family environment through coping, coping through support, and the support through coping. It is understood that the variables select different paths leading to the dependent variable.

Role conflicts:

The conflictive role stress had significant correlation with the variables education, family type, family size, age at marriage and number of children. (Table 4.20). The personality variables self-efficacy, self esteem, locus of control (IC), health, femininity and androgyny had their correlation coefficients (Table 4.21). The family variables expressiveness, acceptance and caring, coping (Ap) and support had the significant correlation coefficients (Table 4.22).

The conflictive role stress shows that the variable, number of children had significant regression coefficient (Table, 4.23). The variables self-efficacy, health, androgyny, family conflicts coping (Ap) and support had their significant regression coefficients (Table 4.25).

The variables education, family type, age at marriage, and number of children were the variables that had a significant contribution in the step down regression analysis of systemic role stress (Table 4.24). The variables self efficacy, self esteem, femininity, expressiveness and acceptance and caring had maximum influence on the role conflicts (Table 4.26).

The path analysis (Table 4.32) of systemic role stress shows that the variables support, coping and androgyny. Maximum indirect effect is exerted by SES, education, and family environment. The path line of the variables shows a surprising effect. The education is passing through self efficacy, SES is passing through support, farming experience through coping, self efficacy through self esteem, self esteem through locus of control(IC), locus of

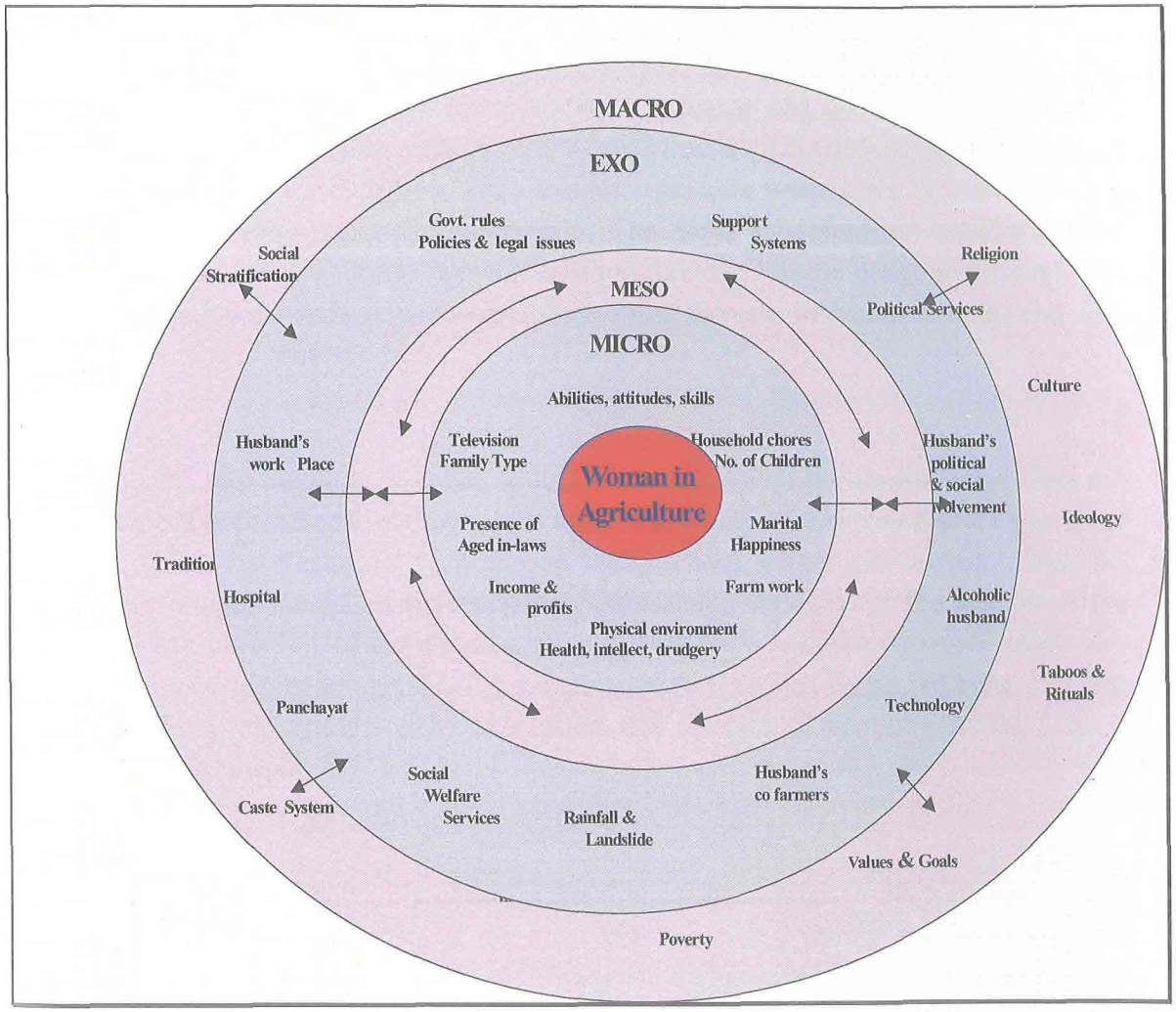
control through self esteem, health through SES, androgyny through coping, family environment through coping, coping through support, and the support through coping. It is understood that the variables select different paths leading to the dependent variable.

Among all the sub systems, the variables coping and support were found as moderate variables as quite a maximum number of variables were passing through them. There are innumerable number of studies about explaining the moderating effect of the variables coping and support in reducing the role stress of the farm women. Social support is an important regulator and controlling factor in reducing the role stress of farm women. Research studies indicated that women are more likely to seek social interaction when depressed or under stress. Women are treated as the best change agents and can readily react to the change in the environment. It is inferred that the farm woman with better SES, education, health, better personality with self efficacy, self esteem, androgynous gender role orientation and with the ability to seek support having approach style of coping were found to handle role stress significantly better than others.

ECOLOGICAL MAP OF WOMAN IN AGRICULTURE

After a complete analysis and synthesis and conceptualization of the study, the ecological theory is further adopted to fit the problem of role stress to suit to the present need. The concepts are further defined below.

Figure 5.1 ECOLOGICAL MAP OF WOMAN IN AGRICULTURE



Ecological Environment: It refers to the nested arrangement of concentric structures, each contained within the next. These structures are referred to as the micro, meso, exo and macro systems (Bronfenbrenner, 1979), which are placed like concentric rings one inside the other.

Micro System:

According to the present study, it refers to a pattern of activities, roles and interpersonal relations experienced by the farm woman in a given setting with particular physical and material characteristics. The micro system is the subsystem from which the interactions are initiated. This is the lower order system constituting the immediate environment comprising of agricultural, household, biological, economic and social roles as its components. The role stress rising from her settings of immediate environment of her family, neighborhood, farm, home is called micro system role stress.

Meso System:

According to the present study, it refers to the system comprising the interrelations among two or more settings in which the woman actively participates. It comprises inter relationship maintenance between all the sub systems crossing the system's boundaries. It is a translucent system where the roles are not seen clearly. The SHG programmes, DWCRA, State department programmes and other Janmabhhomi programmes are the different settings. The complex process of network relationship of the farm woman with the settings and also between the settings is observed here.

Exo System:

According to the present study, it refers to the system, in which the farm woman does not involve as an active participant but the events occurring in this system may affect the roles of woman indirectly. The Panchayat programmes, bank, school, community services, hospital, social welfare programmes, Government policies and health services are the settings of the exo system. The other set of components include husband's occupation, work place, co-workers, bad\ good habits and personality domains habits may also be placed here. The role stress arising from the settings of the exo system due to lack of harmony among them is called the exo role stress.

Macro System:

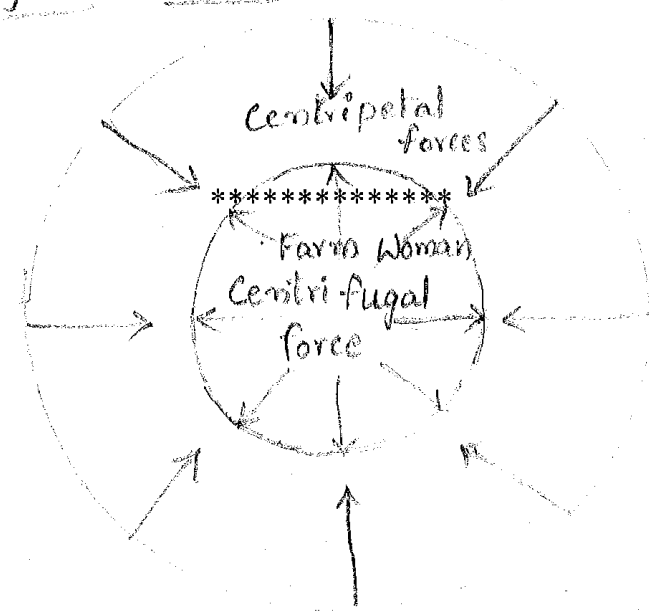
According to the present study, this system refers to the consistencies in the form and content of lower order systems. It consists of the most general values, beliefs and ideologies that influence the other subsystems of ecology. This is the higher order subsystem where all the other subsystems are specific and concrete manifestations. It is nothing but the overarching institutional patterns of culture. The ideology, culture, values, traditions, illiteracy, poverty, caste system, urbanization, seasonal unemployment, harvest failure, earth quakes and wage disparity are placed here as settings.

ROLE STRESS .. A THEORETICAL VIEW(From the study) :

The ecology of human development is the study of progressive mutual interaction between the developing person (farm woman) and the various contexts of development. Each layer of the ecological environment is viewed as having a powerful impact on the development of the individual. The ecological environment is composed of four structural levels, which range from the most immediate settings to the more remote contexts. These systems and the relationships among them can change over the course of development where both the environment and individual exert and receive interactions mutually.

In order to balance the stress arising from the roles of all the outer layers of the environment the woman has to exert an equal, opposite, divergent and impetuous force to face the pressure originating from the environment which ~~can~~ makes her more strengthened by utilizing ~~the~~ her own resources or from the environment. The congruency and balance is required to maintain the structure and functions of different sub-systems, otherwise the balance gets disturbed where so many pressures in the form of centripetal forces converge towards the micro environment. The woman is required to exert centrifugal force as a divergent and opposite force to balance the paradoxical force arising from the environment. The woman by using her internal (self efficacy, self esteem, locus of control, gender role orientation) and all the external (all kinds of family and social supports) resources can easily face the challenge where the coping and support act as catalysts. Even though a number of resources exist in different layers of the ecological environment, the farm woman should be selective and ready to utilize the resources in an effective and efficient manner. The positive elements have to be pooled up in a meticulous manner and the demerits of the components have to be eliminated with an effective strategy. There arises the need of training, education and scientific awareness to build the competency to utilize her fullest potential for creating a congenial environment.

Fig 5.2 stress balance model (Investigator)



CHAPTER VI

SUMMARY AND CONCLUSIONS

Women have been the subject of great interest to religious thinkers, politicians, social leaders, literacy people, artists and social scientists since the beginning of human civilization. It is believed by historians that it was women who first initiated farming by domesticating crop plants. While men went out for hunting, women started gathering the seeds of plants and began cultivating them to meet their food, fibre and fuel needs (Swaminathan, 1985). The problem of role stress in women, particularly farm women is an important aspect of the process of social change in India. Traditionally, Indian women worked within the framework of the family system. Today, they have joined their hands with men in the work force. The consequent outcome is that women live in two systems and need to perform both familial as well as occupational roles. This in turn leads to a greater role stress among the women. This necessitated several psychologists and sociologists to study the composite factors affecting the problems of women. As a sequel, several sociologists, psychologists and industrialists have explored the confounding nature of the role stress phenomenon of working women and the other extension workers have dwelled the translucent nature of role performance of farm women. So far, not even a single Indian study has been aimed at digging the role stress of farm women. Thus the present study is an attempt in this direction with the following objectives.

GENERAL OBJECTIVE :

To study the role stress of farm women in an ecological perspective.

SPECIFIC OBJECTIVES :

- To study the selected personality dimensions of farm women; self efficacy, self esteem, locus of control, physical health and gender role orientation.
- To study the family processes of farm women; family environment, support system and coping strategies.
- To construct a role stress inventory of farm women, in an ecological perspective.
- To measure the role stress of farm women across different sub systems and the relationship between the role stress and different subsystems.
- To examine the relationship if any between the selected personality dimensions, family processes and the role stress.
- To study the relative contribution of demographic factors, personality factors and family processes on the role stress of farm women.

The total sample of the study comprised of 240 farm women drawn purposively by Quota sampling from 12 different villages and 4 different mandals and 2 districts of Andhra Pradesh. The dependent variable of the present study is the role stress with independent variables of personality variables (self-efficacy, self esteem, locus of control, physical health and gender role orientation), family process (family size, family type and family environment), coping variables (coping strategies and support system) and the demographic variables (age, education, caste, income, land holding, socio economic status, farming experience, age at marriage, marital status and number of children) were considered for the study. A role stress scale was designed and developed by the investigator to suit the need. The statistical methods of percentages, means, standard deviations, correlations, multiple regression, path analysis were used for the present study.

MAJOR FINDINGS OF THE STUDY

- The profile analysis of farm women with respect to the demographic characteristics revealed that a majority of the farm women were middle aged, illiterates, had low income, belonged to small farmer category, had low material possession with low socio-economic status, medium family size, nuclear families, married earlier, with a high farming experience.

- Regarding personality traits, a high percentage of the farmwomen had low self-efficacy, self-esteem, and locus of control. The results of the study indicated that the farm women had low physical health, low reproductive health and medium physiological health.

- The farmwomen had high femininity, cohesion, expression, conflicts, acceptance and caring and low overall family environment. The results indicated that the farm women had high avoidance coping behaviour compared to the approach strategies.

- The women had low instrumental, informational and service support with high socio emotional support. They perceived high role stress in micro and exo sub systems, where as in the meso system, medium stress was observed.

- The women had higher role overload with medium role expectation conflict, inter role distance, role erosion, role conflicts and low role stagnation & self-role distance.

- Significant differences were observed among educated and uneducated sample of the women with regard to self efficacy, self esteem, locus of control, androgyny, logical thinking, positive appraisal, micro system role stress, and exo system role stress.

- Descriptive analysis in the dimensions of self-efficacy, locus of control and androgyny and coping strategies of cultivators and wage workers shows substantial differences. The cultivators differed with labourers in all the role stress aspects of micro, meso, exo and macro sub systems. The cultivators had low role stress while labourers had high role stress.

- Among all the demographic factors, education, income, caste, socio economic status, number of children and land holding were significantly and negatively correlated with role stress.

- The personality variables self-efficacy, locus of Control (IC), health, and androgyny were found to have significant and negative correlation whereas femininity had a positive correlation with the role stress. Family processes; cohesion, expressiveness, acceptance and caring and the total family environment had a negative and significant correlation.

- Almost half of the selected variables have shown significant correlations with the role stress. All the subsystems were well correlated with each other in the process of role stress.

- It is interesting to note that the demographic variables in the micro system did explain about a substantial amount of 50 percent variation in role stress of micro system, where, maximum contribution was explained by the variables education, income, socio-economic status.

- The personality variables in the micro-system had contributed a maximum amount of 58 percent variation in the micro- system, in which the coping, support and self-efficacy had exerted maximum influence on the role stress in an opposite direction.

- In meso-system, the demographic variables explained only 4 percent of variation whereas personality variables explained about 28 percent variation. The variables socio-economic status, self-efficacy, masculinity, androgyny, expressiveness and support were found to exert impact on the role stress dimension.

- In exo-system, the demographic variables explained 52 percent of the variation. Caste, Socio-economic status, marital status and family size were found to be maximum contributing variables. The personality variables in the exo-system did explain about a maximum amount of 62 percent variation. The variables self-efficacy, self-esteem, androgyny, coping and support were found to exert maximum impact on role stress of exo-system.

- In macro-system the variation of 42 percent was observed by demographic variables where education, caste, land holding, SES and family type have significant regression coefficients. The personality variables in the macro-system did explain about an amount of 21 percent variation in the macro- system, where the self-efficacy, self-esteem, femininity, coping and support were found to contribute substantially.

- Overall systemic role stress variables explained 27 percent of variation by demographic variables, where education, caste, land holding and SES were found to contribute to a large extent. The personality variables in the overall systems did explain about a maximum amount 33 percent variation in the overall systems, where the self-efficacy, self-esteem, cohesion, coping and support were found dominant.

- The demographic variables explained at about 13 percent variation of the role conflicts. Education, Family type, age at marriage, number of children were dominant demographic variables contributing to role stress. The personality variables of role conflicts explained about 16 percent variation in the micro- system, where the self-efficacy, self-esteem, femininity, expressiveness and acceptance & caring were found to play the major role in reducing the stress component.

- The coping and support were drastically reducing the role stress of farm women among all the sub-systems and found as moderating variables. More over, each subset of the variables is interrelated and intra-related leading to a common factor, role stress. A change in the independent variables may have a tremendous impact on the role stress.

Figure 6.1 : Paradigm showing the Strategy Suggested For Effective Empowerment of Farm Women: Programme package

Micro level →	⁎Drinking water and sanitation ⁎Better housing and shelter ⁎Health and nutrition ⁎Education & employment ⁎Micro credit ⁎Poverty eradication	Effective Empowerment of Farm Women
Meso level →	⁎Decision making ⁎Better linkages ⁎Control over resources	
Exo level →	⁎Resource management ⁎Institutional support ⁎Socio-political support ⁎Science and Technology ⁎Mass media ⁎Farm Mechanisation	Workable strategy for congenial stress free situation of farm women ⁎ Organising Self Help Groups ⁎ Vocational training programmes ⁎ Mens' participation and collaboration in work. ⁎ Creches and anganwadis for children of farm women ⁎ Women specific Technologies ⁎ Ergonomic planning, technology & training ⁎ Improvement of marketing & transportation ⁎ Policy implementation ⁎ Better Health care
Macro level →	⁎Legislation and policies ⁎Gender sensitization ⁎International cooperation ⁎Globalization	
Role conflicts →	⁎Eradication of social problems (Dowry and violence) ⁎Freedom of expression ⁎Delegation of work ⁎Counselling service	

The strategy suitable for effective empowerment of farm women at different levels of environment has been suggested after a comprehensive observation of results. The workable strategy for congenial stress free situation for farm women at rural setup will not only empower the woman but also involves them in the national stream by ensuring full and equitable participation in agricultural development programmes.

IMPLICATIONS OF THE STUDY

- The present study paves a way for researchers and policy makers to plan and introduce women friendly technologies and programmes to study the gender atrocities and differences in the context of socio economic scenario.

- The study open avenues sociologists and extension workers in the society in recognizing the exact role of farm women, their capabilities, strengths, weaknesses, opportunities, threats, working conditions, low wages and role stress from a systemic point of view.

- The present research focuses its attention in sensitizing the public in gender specific issues and to explore the needs and interests of the farm women for improving their work efficiency and for reducing the health hazards for providing better working conditions.

A critical examination of the present agricultural extension system may help in necessary policy making for organizational, structural, operational and functional changes for effective main streaming of the women in national stream by providing training and extension support.

CONCLUSIONS

- Even though a lot of welfare programmes are being implemented, a few are reaching the hapless rural women. Enhancing their abilities, their personality components may strengthen the women to be integrated in the national stream.
- There is an urgent need for a new agricultural research and extension agenda, which integrates the gender analysis into the technology generation and dissemination process.
- Efforts should be made to educate men folk to treat women as equal partners in progress. The government, NGOs, and Women's organizations at large have to play a crucial role in making gender equity a reality. The scattered women groups must be strengthened.
- The literature on women's subordination has identified the family as a site for the reproduction of relations of power, sexual division of labour and the meaning of gender. The gender should form an important variable in the holistic analysis of the farming system.
- Since the farm women perform many critical decision making functions in agricultural production, they should have equitable access to resources, power and decision making in technological choice of enterprises.
- The government programmes must be properly utilized by the farm women where the interests of the women may be protected and promoted. Effective collaboration with community organizations may enable the women and community for sustainable development.

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APPENDIX – A
GENERAL INFORMATION SCHEDULE

1.	Name of the Respondent		
2.	Husband's Name		
3.	Name of the Village		
4.	Mandal and District		
5.	Telephone Number (if any)		
6.	Age		
7.	Education	Illiterate Functional literate Primary education Secondary education Middle education Collegiate educaton	
8.	Caste	OC \ BC \ SC \ ST	
9.	Family Type	Joint Nuclear	
10.	No. of Family Members	Male Female	
11.	Marital Status	Un married Married Divorced Widowed	
12.	Age at Marriage		
13.	Number of Children	Male Female	
14.	Occupational Status	a) Wage earner b) Wages + cattle rearing c) Farming + wage earner d) Only farming e) Farming + cattle rearing f) Any other	
15.	a) Land Possession Wet Land Dry land	a) No land (Landless) b) 1 to 2.5 acres (Marginal) c) 2.6 to 5.0 acres (Small) d) 5.1 to 10. 0 acres (Medium) e) More than 10 acres (Large)	
16.	Source of irrigation	Canal Well/ Lift Irrigation Rain fed	
17.	Type of the House	House Type	Electrificaiton Yes / No
		a) Katchcha (Mud floor) b) Semi Pucca (Cement floor) c) Pucca (Mosaic floor)	

18) Family Occupation Details:

Occupation	**Income (Rs.)**	**Experience**	**Type of Crop/ Cattle & Number**
Agriculture			
Horticulture			
Dairy			
Poultry			
Wages/Labour			
Caste related Occupation			
Any other			

19. Material Possession:

Household Equipment	**Yes/No**	**Farm Exuipment**	**Yes/No**	**Number**
Wall clock		Plough		
Transistor/ Radio		Bullock cart		
Fan		Pump set		
Tape recorder		Winnower		
Television		Thresher		
Bio-gas plant		Go down		
Motor cycle/cycle		Power Sprayer		
VCR/VCP		Tractor		
Car/ Jeep/ Van		Cattleshed		
Telephone		Oil Engine		

20. Social Participation of Family Members:

Membership	Yes/No	Relationship with Respondent
• Member of School		
• Member of Panchayat		
• Member Mahila Mandal		
• Member of Cooperative Society		
• Member of DWCRA group		
• Member of Political affairs		

21. Activity Pattern:

Amount of TimeSpent	Agriculture	Household Activities	Cattle rearing	Child Care	Personal Care	Horticulture

22. Leisure Time Available:

a) Kharif :
b) Rabi :
c) Summer :

23. Subscription:

a) No
b) News paper subscription
c) Subscriber to weekly / monthly / magazine
d) Subscriber to agricultural magazines

24. Profile of Family Members:

S.No.	Relationship	Age (years)	Sex	Education	Occupation Dependent/ Earning	Marital Status	Staying in the fly y/n	If not, place of stay
Self								
Husband								
Son I								
Son II								
Daughter I								
Daughter II								
Mother in Law								
Father in Law								

APPENDIX – B

LETTER TO THE JUDJES

Dear Sir \ Madam ,

This is an important scale in assessing the role stress of women in agriculture in different ecological subsystems.Your judgment or evaluation is a contribution for standardizing the scale. Please spare your precious time in giving your valid remarks. You are free to give your valuable suggestions and criticisms for improvement of the scale.

The present scale is constructed based on the role stress of four sub systems. It contains statements to measure the role stress of farm women. I request you to go through the statements and indicate in the appropriate column against each statement. Give your opinion regarding its suitability to measure the specified constructs on a five point continuum. If you strongly believe that the item is suitable to measure the construct, mark tick under the label, 'Highly Related'. If you believe that the item is not at all suitable to measure the construct, mark tick under the label, 'Not relevant'. For in between preferences, mark accordingly as 'Related', 'Undecided' or 'Unrelated'.

Thanking you,

Sincerely Yours,

K. Suman Kalyani

(K.SUMAN KALYANI)

APPENDIX – C

LETTER TO THE RESPONDENTS

Dear Respondent,

Stress is a part of our daily life. Some people feel that they are overburdened with heavy work in their daily roles. Where as others feel that they do not have any stress or fatigue in different roles. The following statements ensure an estimate of your feeling about the roles. Please go through the statements and give your responses in any of the five categories of responses given for each statement. There is no right or wrong response. Be sure not to omit any questions. The information provided by you is strictly confidential and hence you are requested to give the responses frankly. Your kind cooperation is very much required for the successful completion of the investigation.

Thanking you,

Yours Sincerely,

K. Suman Kalyani

(K.SUMAN KALYANI)

APPENDIX - D

ROLE STRESS SCALE FOR FARM WOMEN

(ECOLOGICAL PERSPECTIVE)

A) MICRO SYSTEM :

1) Stress due to the Agricultural Roles	Agree 3	Neutral 2	Disagree 1	t value
• I worry about farm related problems.				2.75
• I feel strained to do land preparation activities like levelling, manuring and bunding.				3.15
• Seed treatment, Soaking and spreading are tiresome activities.				3.47
• Weeding for long hours in the nursery is a difficult task.				3.24
• I feel worried of skin problems due to transplantation.				2.98
• Standing in scorching hot sun is difficult for me.				3.27
• Pulling and carrying to the main field is a strenuous activity.				4.35
• I feel tired to do transplantation (as it causes body pains).				4.53
• I feel troubled as plant protection measures require much care.				3.26
• Standing in mud water continuously while transplantation and weeding irritates me (as it causes swollen and sore hands and feet).				2.75
• I feel exhausted to do harvesting (as it causes wounds and injuries) .				3.45
• Walking for long distances to attend the farm work is a tiresome task.				3.56
• During winnowing, I get itching and irritation in my eyes.				3.67
• Continuous bending while doing intercultural operations is a difficult task.				3.93
• I feel that the post harvest activities (dehusking, pounding and grinding of cereals and pulses) are stressful.				4.35
2) **Stress Due to the General House Hold Roles :**				
• I feel tired to work during the period of ill health.				3.82
• I feel difficulty in doing entire household work.				3.23
• Bearing household responsibilities is difficult for me.				4.12
• I always worry over improving the physical conditions of home (control of rodents, rats and insects).				2.34
• I feel strained to take independent decisions related to home management.				2.25

	Agree 3	Neutral 2	Disagree 1	t value
• I face difficulty as there are limited resources available at my house.				2.45
• Working in a smoke filled kitchen is difficult for me.				3.54
• Cooking and precooking, activities involve much strain.				3.45
• I feel more exhausted in cleaning the vessels.				3.23
• Washing clothes is highly strainful for me.				3.84
• Fetching water is a difficult task for me.				4.15
• Maintenance of sanitation & sweeping are comparatively tough tasks for me.				2.13
• Collecting fuel and making dung cakes is a tiresome activity.				3.85
• I feel tensed whenever there is property damage due to the theft / rodents / insects / rainfall.				2.18
• I feel exhausted to do food preservation activities (pickles, chilli powder, turmeric and sambar).				2.17
3) Stress due to the Biological and Affectional Roles :				
• Due to the heavy work load, I am unable to provide sufficient love and affection to my family members.				3.82
• My children are neglected due to the heavy work load.				3.87
• I am unable to pay attention towards the needs of my husband.				3.55
• I am unable to understand and share the problems of my family members.				3.35
• Due to the heavy work load, I am unable to share my feelings with my family members.				3.82
• I feel that I am unable to spend time and to give company to my family members.				4.15
• I worry over home related conflicts.				4.18
• I find it difficult to maintain close and dyadic relations with my family members.				2.15
• I feel disturbed as I can not attend a sick person in the family.				3.10
• I worry about the behavioral problems of children.				3.21
• I am unable to help my family members in need.				3.23
• I feel tensed as I have to leave my young children with my in-laws / relatives / neighbours.				3.35
• I am worried as my children are not disciplined properly.				3.38
• I feel tensed as the physical needs of my young children are not taken care off				4.12
• I feel guilty as I am not able to perform my roles as a wife and mother.				4.44

4) **Stress Due to the Economic Roles :**	Agree 3	Neutral 2	Disagree 1	t value
• I find it difficult to handle financial investments / bank accounts.				3.35
• I always think and worry about livelihood.				3.24
• I feel tensed as there are no savings to meet future needs.				3.34
• I feel depressed as I am not involved in the decisions related to finance.				3.12
• I worry about reducing the expenditure.				3.83
• I feel tensed when the expenditure exceeds beyond the income.				3.84
• Property damage makes me tensed.				3.89
• I find difficulty to borrow and repay the loans.				2.26
• Family debts make me stressful.				3.35
• I am annoyed as I cannot spend the money the way I like.				3.38
5) **Stress due to the Social and Recreational Roles :**				
• I am unable to attend the religious rituals performed in the community due to the heavy work load.				3.25
• I feel strained to perform religious ceremonies like marriages, vrathams and births.				3.28
• I feel guilty of not maintaining good relations with neighbours and friends.				3.15
• I feel tensed as I am unable to get cooperation from neighbours / relatives / friends.				3.25
• I worry over the conflicts raised at farm.				3.82
• I feel exhausted as I lack entertainment / recreation.				2.05
• I feel nervous about gossip, suspicion and criticism of my family members as I am working with male members.				2.87
• My social contacts become limited due to my pre-occupation at farm and home.				2.15
• I feel frustrated with the degrading comments on women by the society.				3.96
• Un necessary interference of neighbours in family matters is troubling me.				3.05
Stress due to the Role Conflicts:				
a) **Role over load :**				
• I become nervous when too many works are pending.				3.01
• I am over burdened with heavy work.				3.65
• I feel confused when there are too many jobs to be done in a fixed time schedule.				3.25
• Bearing both the household and farm responsibilities is stressful.				4.15
• I am delegated extra responsibilities in addition to my regular work.				4.34
• I get physical fatigue as my regular works demand much energy.				4.38

	Agree 3	Neutral 2	Disagree 1	t value
• I am psychologically upset.				3.54
• I feel strained as I am the only person over burdened in the family.				3.55
• I feel tensed when ever I think about the nature and quantity of work I do.				3.68
• I forget simple things because of heavy work.				3.15
b) Role expectation conflict :				
• My family members expect much and extract more work from me.				3.82
• I feel strained to satisfy everyone at home as lot of my services are needed.				3.95
• I am expected to perform many activities simultaneously .				3.85
• I feel strained as I cannot reach the expectations set by my family members.				3.92
• I feel distracted by the contradictory expectations of my family members.				3.67
c) Inter role distance :				
• I am confused to decide and prioritize my responsibilities between farm and home.				3.24
• My work at farm is affecting my marital happiness.				2.83
• I feel disturbed as my farm work is being hampered due to the household responsibilities.				2.42
• I feel strained as my personal health, interests and hobbies are not taken care off.				2.82
• I feel guilt as I am unable to do justice to my roles as a mother, wife, daughter in law and as a farm woman.				2.15
d) Role Stagnation :				
• I feel exhausted as there is no growth or progress in my roles.				2.15
• I feel strained as I can not improve my socio-economic status.				2.82
• I feel depressed as there is no reward for the hard work done by me.				2.54
• Our poverty remains unresolved inspite of my hardwork.				2.82
• I feel that I am compelled to earn only for my family but not for my own benefit.				2.15
e) Self Role Distance :				
• I am dissatisfied as I am unable to utilize my talents and abilities.				2.84
• I feel strained as I am forced to work outside against my will.				2.54
• Aspirations in my life remain unfulfilled.				3.15
• I feel strained as my present role is not suitable for me.				3.22

	Agree 3	Neutral 2	Disagree 1	t value
• My responsibilities are beyond my capabilities.				3.42
d) Role Erosion :				
• I feel bad when family members give least recognition to me.				3.85
• I feel strained as I am not given enough power in the family, inspite of my hardwork.				3.42
• I feel depressed as I am not considered in decision making.				3.55
• I feel strained as I do not have on independent status of my own.				3.82
• I feel strained as I am treated as a slave or bonded labourer in the family.				3.75

B) Role Stress Due to Meso System :

	Agree 3	Neutral 2	Disagree 1	t value
• I feel anxious to collect farm related information from other progressive farmers / farm women.				2.52
• I feel strained to make friends in farming community.				2.54
• I find it difficult to maintain good relations with officials / Ag O / Extn Worker / Voluntary Worker.				2.16
• I find it difficult to attend social activities / community development programmes.				2.08
• I feel exhausted to attend Kisan Melas / Farmers days.				2.04
• I worry about getting credit from the financial agencies.				2.98
• I feel over burdened to play active role as a self-help group member.				2.42
• I feel tensed to attend training programmes / field trips to improve my farming abilities.				2.82
• I find it difficult to play active role in Janmabhoomi programmes.				2.45
• I feel strained to visit village Panchayat Office / mandal Office.				2.92

C) Role Stress Due to Exo System:

	Agree 3	Neutral 2	Disagree 1	t value
• I think and worry about marketing facilities, to sell our products and food grains.				2.45
• I feel nervous when my husband / family member takes alcohol.				2.15
• My regular work gets disturbed while my husband takes alcohol.				2.35

	Agree 3	Neutral 2	Disagree 1	t value
• Rising prices keep me agitated as we find it difficult to make the two ends meet.				2.82
• I worry about the unemployment problem during un-season (slack period)				2.45
• I feel troubled to choose alternative ways of employment.				2.43
• I am exhausted to make use of the Government procedures while marketing agricultural products.				2.15
• I worry about annual agricultural yield.				3.82
• I worry about natural calamities like floods / drought.				3.98
• I am exhausted to find the solutions and information about the farm related problems.				

D) Role Stress Due to Macro System:

	Agree 3	Neutral 2	Disagree 1	t value
• I am troubled due to the wage discriminations prevailed in society.				**4.12**
• I am the victim of gender discrimination both at farm and home.				4.17
• Beliefs and values are disturbing my performance as a mother and wife.				4.23
• I do not have liberty at home to play active role in society.				3.85
• I am facing troubles discriminations due to my caste or religion in society.				3.45
• I get irritated due to the superstitious nature of my family members.				2.84
• I feel strained about the ill treatment of land lords.				2.85
• I feel strained in the patriarchal family system due to the customs and beliefs.				2.82
• I am exhausted to stay in joint family.				2.45
• I feel strained to follow the social customs and restrictions set by the society.				2.95

వ్యవసాయ మహిళలకు వివిధ పాత్రలలో కలిగే సమస్యలు కొలిచే ప్రశ్నావళి (పర్యావరణ దృక్పథం)

మైక్రో సిస్టమ్	ఎల్లప్పుడూ	అప్పుడప్పుడూ	అస్సలు లేదు
1. వ్యవసాయ పాత్ర వల్ల కలిగే వత్తిడి			
• పొలంలో ఎదురైన సమస్యల గురించే నా వేదన			
• నేలను చదును చేయడం, గట్లు వేయడం, ఎరువు తోలించడం అనే పనులు చేసేటప్పుడు అలసిపోవలసి వస్తుంది			
• విత్తనశుద్ధి, విత్తనాన్ని నానపెట్టి చల్లుకోవడం అనే పనుల్లో తరచూ అలసిపోవలసి వస్తుంది			
• నారుమడిలో గంటల తరబడి కలుపుతీయడం నాకు పెద్ద సమస్య			
• నాట్లు వేసేటప్పుడు మురికి నీటిలో నానడం వల్ల వచ్చే చర్మ సంబంధమైన సమస్యల పట్ల నేను భయపడతాను			
• మలమల మాడే ఎండలో గంటల తరబడి నుంచోవడం కష్టమైనపని.			
• నారు మడి నుండి నారు ఊడ్చి, పొలానికి మోసుకెళ్ళడం కష్టమైన పని			
• నారు నాటేటప్పుడు నేను చాలా అసలట చెందుతాను (ఎందుకంటే దీనివల్ల నాకు ఒంటినొప్పులు వస్తాయి)			
• సస్యరక్షణా పద్ధతులు అవలంభించడం కష్టమైన పని.			
• గంటల తరబడి నాట్లు వేసేటప్పుడు, కలుపు తీసేటప్పుడు మురికి నీటిలో నుంచోవడం చాలా కష్టం			
• కోత కోయడంలో నేను చాలా అలసిపోతాను			
• మైళ్ళ కొద్దీ పొలానికి నడచినప్పుడు నేను అలసిపోతున్నాము.			
• తూర్పార పట్టేటప్పుడు, నాకు కళ్ళలో దురద, మంటగా ఉంటుంది.			
• కలుపులు, ఇతర వ్యవసాయ చర్యలు పాటించేటప్పుడు అధిక సమయం వంగి ఉండుట కష్టం			
• పంటకోతల పిదప చేసే తిరగలి విసరటం, ధాన్యం శుభ్రం చేయటం, బహుకష్టమైనవి.			
2. ఇంటిపనుల పాత్ర వల్ల కలిగే వత్తిడి			
• జబ్బు చేసినప్పుడు, పనిచేయాల్సి రావడం వల్ల నేను అలసిపోతూ ఉంటాను			

మైక్రో సిస్టమ్	ఎల్లప్పుడూ	అప్పుడప్పుడూ	అస్సలు లేదు
• సరుకులు, ఇతర ఇంటి అవసరాల నిమిత్తం బయటకు వెళ్ళి మోసుకురావడం కష్టం అనిపిస్తుంది			
• ఇంటి పనంతా చెయ్యడం చాలా కష్టంగా ఉంది			
• ఇంటి బాధ్యతలన్నీ భరించడం కష్టంగా ఉంది			
• ఇంటి రిపేర్లన్నీ చేసుకోవడం నాకు చాలా కష్టం			
• కరెంటు, నీరు బిల్లులు, ఇంటి, భూమి పన్నులను కట్టాల్సి రావడం కష్టంగా ఉంది ఓపిక, సమయాన్ని వెచ్చించాలి.			
• ఇంటి పరిసరాలను వృద్ధిపరచడానికి ఎప్పుడూ కృషి చేస్తాను (ఎలుకలు, పందికొక్కులు, ఇన్‌సెక్ట్స్ మొదలగునవి)			
• ఇంటికి సంబంధించిన నిర్ణయాలను తీసుకొనడంలో నేను తరచు అలసిపోతూ ఉంటాను			
• ఇంటివద్ద నాకు సరైన వనరులు చాలక కష్టంగా ఉంది			
• పొగతో నిండిన వంటగదిలో పనిచెయ్యడం కష్టంగా ఉంది			
• వంట మరియు ఇతర పనులు చేసుకోవడం కష్టంగా ఉంది			
• ఇంటి, వంట సామాను తోమి శుభ్రం చెయ్యడం చాలా కష్టమైన పని			
• బట్టలు శుభ్రపరచడం చాలా కష్టంగా ఉంది			
• నీరు తోడడం, తీసుకురావడం నాకు కష్టంగా అన్పిస్తుంది			
• పరసరాల పరిశుభ్రత, ఊడ్చడం మొదలైనవి కష్టంగా ఉన్నాయి			
• చిరిగిన బట్టలు కుట్టడం, బాగుపర్చడం చాలా కష్టంగా ఉంది			
• పుల్లలు ఏరడం, పిడకలు చెయ్యడం చాలా కష్టంగా ఉంది			
• ఆస్తి నష్టం వాటిల్లినప్పుడు, నేను చాలా బాధపడతాను. (దొంగల వల్ల కానీ, పందికొక్కులు, ఎలుకలు, క్రిమికీటకాదులు, భారీ వర్షాలు)			
• ఎప్పుడూ ఆహారానికి సంబంధించిన నిల్వపద్ధతులు (పచ్చళ్ళు, వడియాలు, కారం, పసుపు, సాంబారుపొడి) పాటించడం కష్టంగా ఉంది			

మైక్రో సిస్టమ్	ఎల్లప్పుడూ	అప్పుడప్పుడూ	అస్సలు లేదు
3. **జీవసంబంధమైన మరియు పేమానురాగాలకు సంబంధించిన పాత్ర వల్ల వత్తిడి**			
• పనిభారం వల్ల నా కుటుంబ సభ్యులకు ప్రేమ, ఆప్యాయతలను పంచలేక పోతున్నాను.			
• నా పిల్లలు పనిభారం వల్ల బాగా అశ్రద్ధ చేయబడుతున్నారు			
• నా భర్త అవసరాల పట్ల నేను ఎక్కువ స్పందించలేకపోతున్నాను			
• నా కుటుంబ సభ్యుల సమస్యలు పంచుకోలేకపోతున్నాను			
• పనిభారం వల్ల నా భావాలను కుటుంబ సభ్యులతో పంచుకోలేకపోతున్నాను			
• నా కుటుంబ సభ్యులకు నేను నా సహాయాన్ని, తోడ్పాడును అందించలేకపోతున్నాను			
• ఇంటికి సంబంధించిన గొడవలతో నేను సతమతమౌతున్నాను			
• నా కుటుంబ సభ్యులతో దగ్గరి సంబంధాలను కల్గియుండాలంటే పనిపాట్ల వల్ల కష్టంగా ఉంది			
• కుటుంబంలో జబ్బు పడిన మనిషిని చూడలేకపోతున్నానని బాధగా వుంది			
• పిల్లల చెడు అలవాట్లు వల్ల నాకు బాధగా ఉంటుంది			
• నేను అవసరంలో ఉన్న మా కుటుంబ సభ్యులకు సహాయం చెయ్యలేకపోతున్నాను			
• చిన్నపిల్లలను నా అత్తమామలతో, పొరుగువారితో, బంధువులతో వదలిపెట్టవలసి రావడం వల్ల నేను బాధపడతాను			
• నా పిల్లలు సరైన క్రమశిక్షణ నేర్చుకోలేదని బాధపడుతూ ఉంటాను			
• పిల్లలకు వారి చదువు సంధ్యలలో బాట చూపించలేకపోతున్నందుకు బాధగా ఉంది			
• పిల్లల శారీరక అవసరాలు తీర్చలేకపోతున్నందుకు బాధగా ఉంది			
• భార్యగా, తల్లిగా బాధ్యతను తీర్చుకోలేకపోతున్నందుకు బాధగా ఉంది			
• కుటుంబ సంక్షేమ పథకాలు పాటించడం కష్టంగా ఉంది			
• పిల్లల భవిష్యత్తు గురించి ఎప్పుడూ కలత చెందుతూ ఉంటాను			

మైక్రో సిస్టమ్	ఎల్లప్పుడూ	అప్పుడప్పుడూ	అస్సలు లేదు
4. ఆర్థికపరమైన పాత్రవల్ల వత్తిడి			
• ఆర్థిక పరమైన అంశాలు, మరియు బ్యాంకు అక్కౌంట్లు తెరవడం చాలా కష్టం			
• భుక్తి గురించే నేను ఎప్పుడూ ఆలోచించి, బాధపడతాను			
• భవిష్యత్ (ప్రణాళిక) అవసరాల నిమిత్తం పొదుపు చేయలేకపోయానని బాధపడుతూ ఉంటాను			
• ఆస్తికి సంబంధించిన నిర్ణయాలలో నా పాత్ర లేదని బాధపడుతూ ఉంటాను			
• ఎప్పటికప్పుడు ఖర్చును తగ్గించుకోవాలని ఆరాటపడుతూ ఉంటాను			
• ఆస్తికి నష్టం వాటిల్లినప్పుడు బాగా బాధపడతాను			
• బ్యాంకుల నుండి అప్పు తెచ్చుకోవడం, వాటిని తీర్చడం నాకు చాలా పెద్ద సమస్య			
• నేను సంపాదించిన డబ్బును నా ఇష్టం వచ్చిన విధంగా ఖర్చు పెట్టుకోలేకపోతున్నందుకు బాధగా ఉంది			
5. సాంఘికపరమైన పాత్ర వల్ల వత్తిడి			
• పనిభారం వల్ల మతపరమైన పండుగలకు హాజరు కాలేకపోతున్నాను			
• ఇంటిలో మతానికి సంబంధించిన పండుగలు నేను చేయలేకపోతున్నాను			
• నా ఇరుగు పొరుగు వారితో సత్సంబంధాలను ఏర్పరచుకోలేనందుకు బాధపడుతూ ఉంటాను			
• నేను నా ఇరుగు పొరుగు, బంధువుల నుండి సహాయ సహకారాలు పొందలేకపోతున్నందుకు బాధపడతాను			
• పండుగలు, పబ్బాలు జరుపుకోవడం వల్ల అలసట చెందుతాను			
• అతిథులు, బంధువుల పట్ల శ్రద్ధ వహించడం కష్టంగా ఉంది			
• అతిథులు, బంధువులు, స్నేహితులను దర్శించవలసిరావడం కష్టంగా ఉంది			
• పుట్టుకలు, పేరంటాలు, పెళ్ళిళ్లు వంటి ఉత్సవాలు ఇంటివద్ద జరుపుకోవడం కష్టంగా ఉంది			
• నాకు ఉంటివద్ద వినోదానికి సంబంధించిన సాధనం లేకపోవడం వల్ల అలసటగా ఉంది			

మైక్రో సిస్టమ్	ఎల్లప్పుడూ	అప్పుడప్పుడూ	అస్సలు లేదు
6. పనిభారం వల్ల కలిగే ఒత్తిడి			
ఎ) పనిభారం			
• ఎక్కువ పనులు ఒకేసారి చేయవలసి వచ్చినపుడు నాకు చాలా ఆందోళనగా ఉంటుంది			
• ఎక్కువ మరియు కష్టమైన పనితో నాకు భారంగా ఉంది			
• తక్కువ సమయ వ్యవధిలో ఎక్కువ పనులు చెయ్యవలసి వచ్చినపుడు నేను మానసిక వత్తిడికి పడుతూ ఉంటాను			
• ఇంటికి సంబంధించిన మరియు పొలానికి సంబంధించిన బాధ్యతలు నేనే చేపట్టడం ఇబ్బందిగా ఉంది			
• నాకు ప్రతిదినం చేసే పని కాక, ఎక్కువ బాధ్యతలు అప్పగిస్తున్నారు.			
• నేనే చేసే పనుల్లో ఎక్కువ శక్తిని కేటాయించాల్సి రావడం వల్ల, త్వరగా అలసట చెందుతున్నారు			
• నేను మానసికంగా బాగా అలసిపోయాను			
• కుటుంబంలో ఒక్కదాన్నే పనంతా చేయటం వలన ఎక్కువ అలసిపోతాను			
• నాకు ఇంటిలో నేను చేయాల్సిన పని విధానం, పని భారాన్ని తలచుకుంటే ఆందోళనగా అనిపిస్తుంది			
• భారమైన పని వల్ల నేను కొన్ని విషయాలు మర్చిపోతూ ఉంటాను			
బి) పాత్రల సమ్మేళనం			
• నా కుటుంబ సభ్యులు నానుండి ఎక్కువ ఆశిస్తూ, ఎక్కువ పనిని చేయిస్తున్నారు.			
• ఇంటిలో ప్రతి ఒక్కరినీ తృప్తిపరచడం చాలా కష్టం, ఎందుకంటే ఇంటిలో నా నుండి ఎక్కువ సేవలు అవసరం			
• నాకు ఒకేసారి ఎక్కువ పనులు చేయవలసి వస్తుంది			
• నా కుటుంబ సభ్యులు ఊహించిన విధంగా చేయలేకపోతున్నానని తపన పడుతు ఉంటాను			
• ఒక్కొక్కరు ఒక్కొక్క విధంగా ఆశించడం వల్ల నేను ఒత్తిడికి గురవుతున్నాను			

మైక్రో సిస్టమ్	ఎల్లప్పుడూ	అప్పుడప్పుడూ	అస్సలు లేదు
7. పాత్రల మధ్య వైవిధ్యం			
ఎ) పాత్రల మధ్య వైవిధ్యం మూలాన సమస్య			
• పొలం వద్ద ఎక్కువ అలసిపోవడం మూలాన ఇంటి పనిమీద ఆసక్తి తగ్గిపోతున్నది.			
• పొలం బాధ్యతలు, ఇంటి బాధ్యతల నడుమ ప్రాముఖ్యమైన దానిని ఎంచుకోవాలంటే కష్టంగా ఉంది			
• పొలం వద్ద చేసే పని వల్ల కుటుంబ సంతోషం దెబ్బతింటున్నది			
• నా వ్యక్తిగత ఆరోగ్యం, వ్యక్తిగతమైన అభిరుచులు, అలవాట్లు వాయిదా వేస్తాను			
• తల్లిగా, అత్తగా, భార్యగా, పనిలోను న్యాయం చేయలేకపోయానని తప్పుగా ఉంది.			
బి) పాత్రపరమైన స్థబ్ధత			
• నా పాత్రలో ఎటువంటి ఎదుగుదల అభివృద్ధిలేక నిరాశకు గురి అవుతున్నారు			
• నా సాంఘిక ఆర్థిక పరిస్థితులు మెరుగుపర్చుకోలేక వత్తిడికి గురౌతుంటాను			
• కష్టానికి తగిన ఫలితం లేదనే భావన నన్ను మరింత కృంగదీస్తుంది			
• ఎంత కష్టపడ్డ నా పేదరికాన్ని రూపుమారు కోలేనని బాధ			
• స్వలాభానికి గాక కుటుంబానికి మాత్రమే నా కృషి అంకితం			
సి) పాత్రకు పనికి మధ్య వైవిధ్యం			
• నా తెలివిని, శక్తియుక్తులను ఉపయోగించలేకపోయినందుకు అసంతృప్తి చెందుతున్నాను			
• నా యిష్టానికి వ్యతిరేకంగా బలవంతంగా నన్ను బయట పనికి పంపుతున్నందుకు కష్టంగా ఉంది			
• నా లక్ష్యసాధనకు నాకున్న ఆశ నెరవేరలేదు.			
• ప్రస్తుతం నేనున్న పాత్రలు నాకు తగినవి కావు అని నాకు బాధగా ఉంది			
• నా బాధ్యతలు నేను చేయగలిగిన దానికంటే మించి ఉన్నవి.			

మైక్రో సిస్టమ్	ఎల్లప్పుడూ	అప్పుడప్పుడూ	అస్సలు లేదు
డి) పాత్రకు గండి			
• కుటుంబ సభ్యుల నుండి చాల తక్కువ గుర్తింపు వచ్చినప్పుడు నాకు చాలా బాధగా ఉంటుంది			
• నేనెంత కష్టపడి పనిచేసిన కుటుంబములో తగినంత అధికారము ఇవ్వనందుకు బాధగా ఉంది			
• నా ప్రమేయం లేకుండా నిర్ణయాలు తీసుకొన్నప్పుడు నేను చాలా కృంగిపోతాను			
• నాకంటూ ఒక స్వతంత్ర స్థానం మా ఇంటిలో లేనందుకు నాకు చాలా బాధగా ఉంది			
• కుటుంబములో నేను ఒక వెట్టిచాకిరి చేసే బానిసవలె చూడబడుతున్నందుకు బాధగా ఉంది			

మీసో సిస్టమ్	ఎల్లప్పుడూ	అప్పుడప్పుడూ	అస్సలు లేదు
• పొలాలకు గురించిన సమాచారము అభివృద్ధి చెందే రైతుల వద్ద సంపాదించడములో నాకు చాలా ఆందోళనగా ఉంది			
• ఇతర రైతులతో సత్సంబంధాలు కల్గియుండడం నాకు పెద్ద పని			
• వ్యవసాయ అధికారులతో సత్సంబంధాలు పెంచుకోవడం కష్టంగా ఉంది			
• సాంఘిక విధుల్లో కార్యక్రమాల్లో పాల్గొనుటకు నాకు కష్టంగా ఉంది			
• కర్షక కార్యక్రమాల్లో కిసాన్ మేళాలకు వెళ్లాలంటే అలసిపోతున్నాను			
• ఆర్థిక సంస్థల నుండి అప్పు తీసుకోవాలంటే దిక్కు తోచకుండా ఉంది			
• స్వయం సహాయ పధక సభ్యురాలిగా పని వత్తిడి వల్ల ఉండలేకపోతున్నందుకు బాధగా ఉంది			
• వ్యవసాయ నైపుణ్యం వృద్ధి చేసికొనుటకు శిక్షణా శిబిరాలకు వెళ్ళుటకు కష్టంగా ఉంది			
• జన్మభూమి కార్యక్రమాల్లో చురుగ్గా పాల్గొనలేనందుకు బాధగా ఉంది			
• గ్రామపంచాయతీ, మండల కార్యాలయములకు వెళ్లాలంటే విషయ పరిజ్ఞానం లేక బాధపడతాను			
ఎక్సో సిస్టమ్			
• కుటుంబసభ్యులు సాంఘిక కార్యక్రమాల్లో పాల్గొనుట వల్ల నాకు పనిభారము తగ్గినది			
• పంట దిగుబడిని అమ్ముకొనుటకు మార్కెట్ సౌకర్యం లేనందున విచారిస్తున్నాను			
• నా భర్త మత్తు కల్గించు సారాను త్రాగినప్పుడు బాధతో వణికిపోతున్నాను			
• నా భర్త త్రాగినప్పుడు నా పనిపాటలకు ఆటంకం కల్గుతుంది			
• పెరుగుతున్న ధరల వలన మాకు కావలసినవన్ని సమకూర్చుకోలేకపోవడం ఒక ఆందోళన			
• పంటకోతల తదుపరి పనులు లేక, కూలిలేక బాధపడుతున్నాను			
• వృత్తి పనులు వెతుక్కోవలసి వస్తున్నందుకు బాధగా ఉంది			
• దిగుబడులు మార్కెట్టుకు పంపునపుడు ప్రభుత్వ కట్టడలను ఆచరించటం ఒక పెద్ద బాధ			

	ఎల్లప్పుడూ	అప్పుడప్పుడూ	అస్సలు లేదు
• పంట చేతికి వచ్చేవరకు నాకు భయంగానే ఉంటుంది			
• ప్రకృతి వైపరీత్యాలైన వరదలు, కరువులు వస్తాయని దిగులుగా ఉంటుంది			
మాక్రో సిస్టమ్			
• కూలిలో తేడాలు నన్ను బాధపెడతాయి			
• పొలంలోను ఇంటిలోను ఆడ, మగ తేడాలు నన్ను బాధపెడుతున్నాయి			
• సాంఘిక నమ్మకాలు, విలువల వలన తల్లిగా, భార్యగా నా విధులు సక్రమంగా నిర్వర్తించలేకపోతున్నాను			
• పాత ఆచారాలు చేయడానికి కష్టంగా ఉంది			
• సంఘంలో సముచిత పాత్ర నిర్వహించడానికి నాకు స్వేచ్ఛ లేదు			
• కులవ్యవస్థ తేడాలలో నేను బాధితురాలిగా అనుకుంటాను			
• నా కుటుంబములోని దురాచారాలను చూస్తే నాకు వళ్ళుమంట			
• భూస్వాముల చిన్నచూపు నన్ను బాధిస్తుంది			
• పొలం పనులు కొన్నిసార్లు ఆచారాలు, నమ్మకాలు కోసం వాయిదా వెయ్యడం నాకు బాధ కలిగిస్తుంది			
• భర్త తరపు కుటుంబ ఆచారాలు నన్ను బాధిస్తాయి			
• ఉమ్మడి కుటుంబంలో జీవించుట నాకు కష్టం			
• సాంఘిక ఆచారాలు, కట్టుబాట్లు ఆచరించాలంటే నాకు కష్టంగా ఉంది			

APPENDIX- E
SELF – EFFICACY SCALE

Source: Ralf Schwarzer & Matthias Jerusalem, 1993.

		Always	Sometimes	Never
1.	I can always manage to solve difficult problems if try hard enough			
2.	I stick to my aims and accomplish my goals, what ever comes my way.			
3.	I am confident that I could deal efficiently with unexpected events and unforeseen situations.			
4.	I can remain calm when facing difficulties because I can rely on my coping abilities.			
5.	When I am confronted with a problem, I can usually find several solutions.			
6.	I feel that I am utilizing my potential fully.			
7.	I have accomplished what I wanted in my life.			
8.	I have a strong desire for success and enjoy the challenges.			
9.	I consider myself successful in my work.			
10.	I am duly rewarded for the efforts I put in.			

APPENDIX – F
SELF ESTEEM SCALE

		Most often	Sometimes	Rarely
1.	I impress others easily by my personality			
2.	I do not suffer from inferiority complex			
3.	People come to me for advice			
4.	I have a desire to become a successful women			
5.	I do not get disappointed even at being unsuccessful			
6.	I am worthy enough to carry out my roles.			
7.	I have the capacity to adjust to the situation.			
8.	I feel I can achieve the things I want.			
9.	I feel people like me.			
10.	I can convince people easily			
11.	I think I am important to people who are close to me.			

APPENDIX- G
LOCUS OF CONTROL SCALE

(Source: Levenson)

		Agree	Undecided	Disagree
1.(I)	Becoming a leader depends on my ability			
2.(P)	I feel that what happens in my life is determined by powerful people			
3.(I)	When I make plans, I certainly implement			
4.I	I can not protect my personal interests from bad luck happenings.			
5.I	I am successful because I am lucky.			
6.(I)	The number of friends I have depends on how nice person I am.			
7.I	It is not wise for me to plan too far ahead, because many things turn out to be a matter of bad fortune.			
8.(I)	I can pretty much determine what will happen in my life.			
9.I	What I think that is going to happen is going to happen.			
10.(P)	My life is controlled by powerful others			
11.(P)	Forgetting the things done, I have to please people around me.			
12.(P)	In order to work out my plans, the decisions of powerful people are needed.			

APPENDIX – H
GENERAL HEALTH

	Always	Sometimes	Never
PHISICAL HEALTH (Max 15 Min 5) 1) Do you feel physically weak and tried?			
2) Do you suffer from the following physical complaints: Physical Complaints: h) Backache b) Headache c) Body pains d) Wounds, cuts e) Dermatitis f) Skin and eye irritation / rash g) Cracks in feet h) Breathing problems			

PHYSIOLOGICAL HEALTH : (Max 15 Min 5) 1) Do you have digestive problems like a) Indigestion & burping b) Burning sensation c) Flatulence & vomiting d) Nausea & lack of appetite			
2) Do you suffer from cold, cough and fever?			
3) Are you prone to viral or bacterial infections like a) Malaria b) Cholera c) Typhoid			
REPRODUCTIVE HEALTH: (Max 15, Min 5) 1) Do you have any reproductive health disorders a) Frequent Abortions b) Urinary/Vaginal Infections c) Fibroid c) Menstrual irregularities & problems d) Problems due to family planning			
OTHER SERIOUS COMPLAINTS (Max 15, Min 5) 2) Do you have any of the following complaints a) Blood pressure (high/low) b) Diabetes c) Congenital abnormality d) Heart stroke e) T.B.			

APPENDIX - I

GENDER STEREOTYPE SCALE:

		Always	Sometimes	Never
1) Able to face crises	(M)			
2) Tolerant	(F)			
3) Ambitious	(M)			
4) Adjusting	(F)			
5) Courageous / Brave	(M)			
6) Affectionate	(F)			
7) Daring/ Adventurous	(M)			
8) Understanding	(F)			
9) Affectionate	(M)			
10) Dependent	(F)			
11) Enterprising	(M)			
12) Sensitive \ Emotional	(F)			
13) Individualistic	(M)			
14)Delicate \ Tender	(F)			
15) Innovative	(M)			
16) God fearing	(F)			

17)) Rational	(M)			
18 Hospitable	(F)			
19) Outspoken	(M)			
20) Patient	(F)			
21) Self-confident	(M)			
22) Nurturant	(F)			
23) Assertive	(M)			
24) Compassionate	(F)			

APPENDIX - J
FAMILY ENVIRONMENT SCALE

(Source: Bhatia & Chedda)

		Agree	Neutral	Disagree
1.	We enjoy doing things together.			
2.	Affection is expressed openly, quite often in our family.			
3.	Togetherness is the basic feeling of our family.			
4.	Out feelings of happiness are shared openly with others in our family.			
5.	Beating up people in anger is not seen in our family.			
6.	Everyone in our family listens to what each one of us has to say.			
7.	Everyone tries to sort things out if there is a disagreement in the family.			
8.	Any new situation that arises is discussed openly in the family in order to get ideas and suggestions from every body.			
9.	We talk about our personal problems to each other in our family.			
10.	There is plenty of time and attention for everyone in our family.			
11.	Everyone comes together the sort out any new situation that may arise in our family.			
12.	At home we feel free to anything we want to.			
13.	Shouting in anger is not common in our family.			
14.	We are careful not to hurt anyone in the family by making thought–less remarks.			
15.	Whenever something needs to be done in the house, everyone joins in, happily.			
16.	When any member is feeling upset, he/she talks to someone in the family.			
17.	In our family if anyone is upset, there is always some one to comfort them.			
18.	Whenever any one in our family is angry with another member, he makes sure to sort out things with him.			

19.	When things get tough there is always someone in the family whom we can turn to.			
20.	When someone is sick in our family everyone participates in looking after the person.			
21.	Expressing an opinion about matters at home is strongly encouraged in our family.			
22.	There is a lot of affection amongst our family members.			
23.	When a family vacation is planned we all give our suggestions.			
24.	Our family believes in not letting differences continue unsorted out.			
25.	If any member gets into trouble he/she gets help and sympathy from other family members.			
26.	When in trouble, all of us stand up for our family member.			
27.	In our family, we enjoy sitting together and talking to each other.			
28.	Showing anger by banging doors is rarely seen, in our family			
29.	All of us participate together in family function / programmes.			

APPENDIX - K
COPING SCALE

(Source: Rudolf Moos)

1) Logical Thinking (Approach Strategy)

	Always	Sometimes	Never	Crisis type
Thinking different ways to deal with the problem				
Anticipate how things would turn out				
Try to step back from the situation and be objective				

2) Positive Appraisal (Approach Strategy)

	Always	Sometimes	Never	Crisis type
Try to see the good side of the situation				
Feel things would get better				
Think how much worse things could be				

3) Guidance and Support (Approach Strategy)

	Always	Sometimes	Never	Crisis type
Talk and discuss with spouse / friends / neighbors				
Seek company / help of spouse / friends				
Take support from professionals				

4) Problem Solving (Approach Strategy):

	Always	Sometimes	Never	Crisis type
Make a plan of action				
Try different ways to solve				
Devote more time and energy				

5) Cognitive avoidance (Avoidance Strategy):

	Always	Sometimes	Never	Crisis type
Try to forget bad incident				
Try not to think about it				
Day dreaming				

6) Acceptance / Resignation (Avoidance Strategy):

	Always	Sometimes	Never	Crisis type
Accepting the situation that nothing could be done				
Feel that time would make a difference				
Think that outcome would be decided by the fate				

7) Seek alternative rewards(Avoidance Strategy):

	Always	Sometimes	Never	Crisis type
Get involved in new activities				
Try to make new friends				
Spend time in recreational activities				

8) Emotional Discharge(Avoidance Strategy):

	Always	Sometimes	Never	Crisis type
Keep away from people				
Yell or shout to let off steam				
Cry to let your feelings out				

APPENDIX - L
SUPPORT SCALE

Source of Support	Financial A\ ST\ N	Instrumental \ Material A\ ST\ N	Informational \ Technical A\ ST\ N	Service \ (Personal Help) A\ ST\ N	Socio-Emotional A\ ST\N	Moral help A\ ST\ N	Communication(Visits & Discussion) A\ ST\ N
a)Fly Members							
Husband							
Children							
In – laws							
Parents							
b) Others							
Friends							
Neighbors							
c) society							
School							
Hospital							
Panchayat							
DWACRA Group							
Youth Club							
Coop. Society							
D)Govt. Ag.Dept.							
MRO office							
NGO							
Any other							

A : Agree
ST : Some times
N : Never

APPENDIX - M

Major Occupational Health Hazards of Different Crops:

Occupational Hazard	Name of the Crop			
	Paddy	Horticulture	Chilli	Cotton
Wounds, cuts & injuries				
Swollen and sore hands and feet				
Headache				
Sunstroke				
Breathing Problems				
Bodyache				
Allergy				
Skin and eye irritation				
Dermatitis				
Vomiting				
Nausea				
Loss of appetite				
Eye hand irritation				
Cracks in feet				
Waist pain				

లోకస్ ఆఫ్ కంట్రోల్ స్కేలు	ఒప్పు కుంటాను	నిర్ణయించ లేను	ఒప్పుకోను
1. నాయకుడిగా ఎన్నుకోబడుట నా మంచిగుణములపై ఆధారపడిఉంది			
2. నా జీవితంలో జరిగిన దానికి కారణం కొంతమంది శక్తిమంతులు			
3. నేను కొన్ని పథకాలు చేస్తే తప్పక వాటిని అమలుపరుస్తాను			
4. దురదృష్ట సంఘటనల నుండి నా వ్యక్తిగత ఇష్టాలను రక్షించుకోలేను			
5. నేను అదృష్టవంతురాలిని కనుక నేను గెలవగలిగాను			
6. ఇంతమంది స్నేహితులున్నందుకు నేను చాలా అదృష్టవంతురాల్ని			
7. ఎక్కువ దూరం ఆలోచించడం అంత మంచిదిగాదు ఎందుకంటే ఒక్కొక్కసారి దురదృష్టం ఎదురౌతుంది			
8. నా జీవితంలో ముందేమి జరుగబోతుందే ఆలోచించగలను			
9. నా వ్యక్తిగత ఇష్టాలను సాధారణంగా కాపాడుకోగలను			
10. నేను కోరింది నేను సాధించానంటే దానికొరకు నేను చాలా కష్టపడి పనిచేసాను			
11. నా జీవితం నా పనులను బట్టి నిర్ణయించబడంది			
స్వయం వ్యక్తిత్వ సామర్థ్యం	ఎల్లప్పుడు	అప్పుడప్పుడు	అసలు లేదు
1. ఇతరులను నా వ్యక్తిత్వంతో ఆకట్టుకోగలను			
2. చిన్నచూపు అనుతత్వంతో నేను బాధపడను			
3. సలహాలకు కొంతమంది నా దగ్గరకు వస్తూ ఉంటారు			
4. ఒక మంచి స్త్రీగా పేరు తెచ్చుకోవాలని కోరిక			
5. అపజయము లోనైనను నేను కృంగిపోను			
6. నా పనులు నిర్వహించుటలో నేను సామర్థ్యముగలదానను			
7. పరిస్థితులకు అనుగుణంగా నడచుకోగను			
8. నేను కావలసినవి సాధించుకోగలను			
9. అందరూ నేనంటే ఇష్టపడతారనుకుంటాను			
10. ఇతరులు నేను చెప్పేది వినునట్లు నేను చేసుకోగలను			
11. నాకు దగ్గరగా ఉండే వారికి నేను ముఖ్యమే అనుకుంటాను			

కుటుంబ పర్యావరణ కొలమానం			
1. అందరమూ కలసి పనిచేయుటలో సంతోషిస్తాము			
2. మా కుటుంబలములో తరచుగా ప్రేమను బాహాటంగా చూపించుకుంటాము			
3. మొదటినుంచి కలసి ఉండడం మా కుటుంబ ప్రత్యేకత			
4. మా సంతోష భావాలను కుటుంబ సభ్యులందరం కలసి బాహాటంగా పంచుకుంటాం.			
5. ఒకరినొకరు కోపంలో కొట్టుకోవడం అనేది మా కుటుంబంలో ఎప్పుడూ చూడలేదు			
6. ఇంటిలో ప్రతి ఒక్కరూ, ప్రతి ఒక్కరి భాపాలకు విలువ నిస్తాం			
7. ఇంటిలో ప్రతికూల వాతావరణం దేనికైనా ఏర్పడిన వెంటనే దానిని మార్చడానికి ప్రయత్నిస్తాం.			
8. ఏదైనా క్రొత్త సమస్య వచ్చినప్పుడు, కుటుంబములో అందరి సలహాలు, ఉద్దేశ్యాలు తీసుకొని చర్చించుతాము			
9. వ్యక్తిగతమైన సమస్యలు వచ్చినప్పుడు ఒకరికొకరు చెప్పుకొని పరిష్కరించుకుంటాము			
10. మా కుటుంబములో ప్రతి ఒక్కరికి చాలినంత సమయము, తగిన శ్రద్ధ ఉంటాయి			
11. క్రొత్త సమస్య వచ్చినపుడు పరిష్కరించడానికి అందరూ కలిసి వస్తారు			
12. ఇంటి వద్ద ఏ పని చేయడానికైనా మాకు స్వేచ్ఛ ఉంది			
13. కోపంతో తిట్టుకోవడం మా ఇంట్లో లేదు			
14. కుటుంబములో ఒకరికొకరం అనాలోచితంగా మాట్లాడి, నొప్పించుకోము			
15. కుటుంబములో ఏదైనా అత్యవసర పని వస్తే, సంతోషంగా పనిచేయుటకు అందరమూ కృషి చేస్తాము			
16. ఎవరైనా బాధతో తలమునకలైతే, వారు మిగిలిన వారితో మాట్లాడతాము			
17. ఎవరైనా బాధలో ఉంటే, మిగిలిన వారు ఓదారుస్తాము			
18. కుటుంబములో ఒకరు ఇంకొకరి మీద కోపంగా ఉన్నప్పుడు, అతను ఎందుకు కోపం వచ్చిందో అనే విషయాన్ని పరిష్కరించుకుంటాము			
19. విషయాలు కఠినరూపం దాల్చినప్పుడు ఎవరో ఒకరు సర్ది చెబుతాము			
20. ఎవరైనా జబ్బు పడితే వారిని అందరూ బాగా చూస్తారు			

కుటుంబ పర్యావరణ కొలమానం			
21. ఏదైనా ఒక విషయంపై ఉద్దేశ్యాన్ని వెలిబుచ్చడం ఇంటిలో అందరూ ఇష్టపడతారు			
22. మా కుటుంబ సభ్యులలో ఒకరిపై మరొకరికి గాఢానురాగాలు కలవు			
23. కుటుంబము ముఖ్యకార్యక్రమములకు అందరము కలిసి సలహాలు ఇస్తాము.			
24. కుటుంబపరమైన విభేదాలు ఎప్పటికప్పుడు పరిష్కరించుకుంటాము			
25. కుటుంబములో ఏ సభ్యునికైనా సమస్య వచ్చినప్పుడు మిగిలిన వారి సహాయ సహకారాలను పొందెదము			
26. కష్టము వచ్చినప్పుడు, అందరం కలసి నిలబడతాము			
27. మా కుటుంబములో విరామ సమయంలో అందరము కలసి కూర్చొని ముచ్చటించుకుంటూ సంతోషిస్తాము			
28. కోపతాపాలు ప్రదర్శించడము మా యింటిలో చాలా తక్కువ			
29. కుటుంబ పండుగలలో, కార్యక్రమములలో అందరమూ పాలుబొందుతాము			
స్వయంశక్తి సామర్థ్యం	ఎల్లప్పుడు	అప్పుడప్పుడు	అసలు లేదు
1. ఎంత క్లిష్ట సమస్యలైనను నేను ప్రయత్నించి పరిష్కరించుకోగలను			
2. నా లక్ష్యసాధనలో ఎన్ని ఆటంకము లెదురైనను వదలక సాధిస్తాను			
3. అనుకోని ఆటంకము లెన్ని ఎదురైన, నా పని నేను సమర్థవంతంగా చేయగలను			
4. నేను సమస్యలెదురైనప్పుడు స్తబ్ధతగా ఉండి నా సామర్థ్యముపై నేను ఆధారపడతాను			
5. నేను నిజంగా ఒక సమస్యలో ఇరుక్కున్నప్పుడు అనేక పరిష్కారమార్గాలు వెతుక్కుంటాను			

ఆరోగ్యానికి సంబంధించిన కొలమానిక	ఎప్పుడూ	అప్పుడప్పుడు	లేదు
1. శారీరకంగా అలసటగా మరియు నీరసంగా ఉంటారా?			
2. ఈ దిగువ నివ్వబడిన శారీరక బాధలతో ఏమైనా బాధపడుతున్నారా?			
• వీపునొప్పి			
• తలనొప్పి			
• శారీరక బాధలు			
• పుండ్లు, గాయాలు			
• చర్మము, కళ్ళు దురద			
• పాదాలలో పగుళ్ళు			
• శ్వాసావయవాల సమస్య			
3. జలుబు, దగ్గు, జ్వరంతో బాధపడుతున్నారా?			
4. వైరస్, బాక్టీరియా, జబ్బు / ఇన్ఫెక్షన్‌తో బాధపడ్డారా			
• మలేరియా			
• కలరా			
• టైఫాయిడ్			
5. జీర్ణ సంబంధమైన వ్యాధులు ఏమైనా ఉన్నాయా?			
• అజీర్ణము, వాతపిత్త వ్యాధులు			
• కడుపులో మంట			
• వాంతులు, విరోచనాలు			
• ఆకలి మందగించడం			
6. ప్రత్యుత్పత్తికి సంబంధించిన సమస్యలేమైనా ఉన్నాయా?			
• వరుసగా అబార్షన్లు			
• అండాశయ, గర్భకోశ వ్యాధులు			
• ఇతర నెలసరి వ్యాధులు			
• ఫ్యామిలీ ప్లానింగ్ వల్ల సమస్యలు			
7. ఈ క్రింది ఇతర సమస్యలేమైనా ఉన్నాయా?			
• రక్తపోటు			
• చక్కెర వ్యాధి			
• ఇతర వంశపారంపర్య వ్యాధులు			
• (టి.బి) క్షయ			

పంటలలో కలిగే వృత్తిపరమైన ఆరోగ్య సమస్యలు

	వరి	కూరగాయలు పండ్లతోటలు	మిరప	ప్రత్తి
• గాయాలు, తెగడం, దెబ్బలు				
• వాచిన మరియు చేతులు మరియు పాదాలు				
• తలనొప్పి				
• ఎండ, వడ దెబ్బ				
• శ్వాస సంబంధ సమస్యలు				
• వంటినొప్పి				
• ఒంటిపై ఎలర్జీ				
• చర్మము కళ్ళు మండటం				
• చర్మవ్యాధి				
• వాంతులు				
• కళ్ళు తిరగడం				
• ఆకలి చచ్చిపోవడం				
• కళ్ళు, చేతులు దురద				
• కాళ్ళలో పగుళ్ళు				
• నడుము నొప్పి				

సమస్యా పరిష్కార కొలమానిక

1. లాజికల్ థింకింగ్				
• సమస్యలను పరిష్కరించడానికి, అన్ని రకాలుగా ఆలోచించడం				
• సమస్యల మార్పును ముందుగానే ఊహించడం				
• సమస్యలు మార్పుకై వేచియుండడం				
• సమస్యలు ఎంత చెడ్డవౌతాయో ముందుగానే అంచనా వేయడం				
• పరిస్థితులలో మంచివైపు మాత్రమే చూడగలగడం				
2. గైడెన్స్ , సపోర్ట్				
• జీవిత భాగస్వామితో కానీ స్నేహితులతో కానీ పొరుగువారితో కానీ బాధలను చెప్పుకోవడం				
• జీవిత భాగస్వామి / స్నేహితులు / పొరుగువారి నుండి సహాయాన్ని పొందటం				
• ఇతర అధికారుల నుండి సహాయాన్ని పొందడం				
3. ప్రాబ్లమ్ సాల్వింగ్				
• కార్యక్రమ పట్టికను ఏర్పరచుకోవడం				
• సమస్యలను అధిగమించడానికి అన్ని రకాలుగా ప్రయత్నించడం				
• ఎక్కువ సమయాన్ని, శక్తిని ఉపయోగించడం				
4. కాగ్నిటివ్ ఎవాయిడెన్స్				
• చెడ్డ సంఘటనను పూర్తిగా మర్చిపోవడం				
• చెడ్డ సంఘటన గురించి ఆలోచించకుండా ఉండడం				
• పగటి కలలు కనడం				
5. రెసిగ్నేషన్ ఏక్సెప్టెన్స్				
• పరిస్థితిని పూర్తిగా ఒప్పుకొని, ప్రవర్తించడం				
• కాలమే పరిస్థితిని చక్కబరుస్తుందని నమ్మటం				
• భవిష్యత్తును కర్మ నిర్ణయానికి వదిలేయడం				
6. ఆల్టర్నేటివ్ రివార్డ్స్				
• క్రొత్త కార్యక్రమాలలో ఇన్‌వాల్వ్ కావడం				
• కొత్త స్నేహితులను చేసుకోవడం				
• సృజనాత్మక కార్యక్రమాల్లో పాల్గొనడం				
7. ఎమోషనల్ డిశ్చార్జి				
• మనుష్యులకు దూరంగా ఉండడం				
• మనసులో ఉన్న బాధను అధిగమించటానికి మనుష్యులను కోప్పడడం				
• బాధ పోవడానికి పెద్దగా ఏడ్వటం				

లింగపరమైన భేదాల వర్గీకరణ కొలమానిక

	ఎప్పుడూ	అప్పుడప్పుడు	అసలు లేదు
1. సంక్షోభం ఎదుర్కోగల నెపుణ్యము			
2. లక్ష్యసాధన (సంకల్పనాత్మకమైన)			
3. పట్టుదల			
4. జీవితపరమైన (ఉద్యోగపరమైన)			
5. గౌరవాన్ని తీసుకోగలగడం			
6. ధైర్యవంతమైన			
7. సాహసప్రవృత్తి			
8. నిశ్చయము			
9. చలాయింపు			
10. దురభిమాని			
11. వినోదాత్మకము			
12. బాహాటంగా మాట్లాడడం			
13. వ్యక్తిత్వము గల			
14. సృజనాత్మకశక్తి			
15. విజ్ఞానాత్మకమైన			
16. ప్రయోగాత్మకమైన			
17. ఆలోచనాత్మకమైన			
18. ఆత్మ విశ్వాసముగల			
19. ముక్కోపి (దేనికి భరించలేని)			

APPENDIX - N

Table a. Step down regression analysis for demographic variables on micro system role stress

Step No	Name of the variable dropped	R^2	Percent variation	F value	Partial 'b' value	't' value
1.	------	0.5059	-----	5.0747	-----	-----
2.	Family size(X9)	0.5056	0.0003	5.5006	0.2461	0.444
3.	Family type(X8)	0.5049	0.0007	6.0171	-0.3706	-0.535
4.	Number of children(X12)	0.5036	0.0013	6.5982	0.6758	0.619
5.	Caste(X3)	0.5020	0.0016	7.2943	-1.0343	-0.694
6.	Age(X1)	0.4982	0.0038	8.0588	0.1197	1.133
7.	Age at marriage(X11)	0.4938	0.0044	9.0158	-0.6249	-1.358
8.	Marital status(X10)	0.4876	0.0062	10.1743	-1.5293	-1.323
9.	Material possession(X6)	0.4818	0.0058	11.8321	-1.8345	-1.419
Total variation of dropped variables			-----	0.0241 (2.41%)		

Micro system:

The step down regression analysis of different demographic variables on the micro system role stress of farm women, in the first step of step down regression analysis, the R^2 value was 0.5059 which explained 50.59% of variation in the role stress, which was found to be significant. Out of 13 variables, 8 variables were eliminated up to 9th step (Appendix N, Table a) All these 8 dropped variables contribute for 2.41% of variation against the contribution of 50.59% by a total of 13 independent variables, the least contributing variable was family size, as it was the first independent variable to be eliminated from step down regression analysis which accounted for 0.03% of variation followed by the variables X8-Family type (0.07%), X12-Number of children (0.13%), X3-Caste (0.16%), X1-Age (0.38%), X11-Age at marriage (0.44%), X10-Marital status(0.62%) and the X6-Material possession(0.58%) with the respective percent contribution as indicated in the parentheses.

APPENDIX - N

Table b. Step down regression analysis of demographic variables on meso system role stress

Step No	Name of the variable dropped	R^2	Percent variation	F value	Partial 'b' value	't' value
1.	-----	0.0403	-----	0.7303	-----	-----
2.	Family size X9	0.0403	0.0000	0.7946	0.0153	0.032
3.	Land Holding X5	0.0402	0.0001	0.8701	0.0645	0.070
4.	Material Possession X6	0.0401	0.0001	0.9580	-0.1782	-0.180
5.	Age X1	0.0399	0.0002	1.0645	0.0339	0.199
6.	Marital status X10	0.0395	0.0004	1.1900	0.7613	0.312
7.	Caste X3	0.0389	0.0006	1.3448	-0.4213	-0.376
8.	Education X2	0.0378	0.0011	1.5268	-0.3509	-0.530
9.	Family type X8	0.0362	0.0016	1.7581	-0.8614	-0.627
10.	Age at marriage X11	0.0342	0.0002	2.0801	-0.2910	-0.699
11.	Number of children X12	0.0320	0.0022	2.6011	0.5755	0.730
12.	Income X4	0.0301	0.0019	3.6876	0.0256	0.667
13.	Farming Experience X13	0.0208	0.0093	5.0558	0.2814	1.514
Total variation of dropped variables			-----	0.0195 (1.95%)		

Meso system:

The step down regression analysis of 13 demographic variables on the meso system role stress of the farm women shows that 12 variables were dropped in 13th step together contributed for a variation of 1.95% while the total variation was about 4.03% explained by 13 variables ((Appendix N, Table b). The first and second variables dropped were X9-Family size (0.00%) and the X5-Land holding (0.01%) the subsequent variables dropped were in the order of X6-Material possession (0.01%), X1-Age (0.02%), X10-Marital status (0.04%), X3-Caste (0.06%), X2-Education (0.11%), X8-Family type (0.16%), X11-Age at marriage (0.02%), X12-Number of children (0.22%), X14-Income (0.19%) and X13-Farming experience (0.93%)with respective percent variations expressed in the parentheses for the role stress of meso system.

APPENDIX - N

Table c. Step down regression analysis of demographic variables on exo system role stress

Step No	Name of the variable dropped	R^2	Percent variation	F value	Partial 'b' value	't' value
1.	------	0.5262	-----	5.0819	-----	-----
2.	Land Holding X5	0.5261	0.0001	5.5288	-0.0279	-0.098
3.	Age X1	0.5259	0.0002	6.0494	0.0143	0.269
4.	Family type X8	0.5256	0.0003	6.6711	-0.2075	-0.309
5.	No of children X12	0.5237	0.0019	7.3672	0.2046	0.734
6.	Income X4	0.5211	0.0026	8.1996	-0.0110	-0.879
7.	Material Possession X6	0.5161	0.0050	9.1406	-0.3736	-1.217
8.	Education X2	0.5131	0.0030	10.5202	-0.1939	-0.944
9.	Farming experience X13	0.5063	0.0068	12.1649	0.0911	1.425
10.	Age at marriage X11	0.5017	0.0046	14.8471	0.1430	1.161
Total variation of dropped variables			-----		0.0245 (2.45%)	

Exo system:

The step down regression analysis(Appendix N, table c) of 13 demographic variables in the exo system, the first variable dropped in the second step was X5-Land holding (0.01%) followed by X1-Age(0.02%), X8-Family type(0.03%), X12-Number of children(0.19%), X4-Income(0.26%), X2-Education(0.30%), X13-Farming experience(0.68%) and X11-Age at marriage(0.46%) by the 10th step, a total of 2.45% of variation was explained by dropping 9 variables with the respective percent variation indicated in the parentheses accounted for the role stress of farm women in exo system (Appendix n, Table c).

APPENDIX - N

Table d. Step down regression analysis of demographic variables on the macro system role stress.

Step No	Name of the variable dropped	R^2	Percent variation	F value	Partial 'b' value	't' value
1.	------	0.4172	------	12.4489	-----	------
2.	No of children X12	0.4165	0.0007	13.5056	-0.1690	-0.530
3.	Family size X9	0.4160	0.0005	14.7682	0.0652	0.439
4.	Farming experience X13	0.4156	0.0004	16.2879	-0.1234	-1.050
5.	Income X4	0.4128	0.0028	17.9671	-0.0137	-1.035
6.	Marital status X10	0.4100	0.0028	20.0727	-0.9433	-1.203
7.	Age X1	0.4063	0.0037	22.6896	0.1388	1.692
8.	Material Possession X6	0.4028	0.0035	24.1430	-1.0853	-1.172
9.	Age at marriage X11	0.4026	0.0009	26.1984	0.3348	1.654
Total variation of dropped variables			-----		0.0146 (1.46%)	

Macro system:

The step down multiple regression analysis in table (Appendix N, table d) shows that our of the 13 independent variables, 8 variables were eliminated in the 9th step all these 8 dropped variables contributed for 1.46% percent variation against the contribution of 41.72% variation caused by 13 independent variables, the first variable dropped was X12-Number of children which contributed for 0.07% variation the subsequent variables dropped were in the order of X9-Family size (0.05%), X13-Farming experience (0.04%), X4-Income(0.28%) , X10-Marital status(0.28%), X1-Age(0.37%), X6-Material possession (0.35%) and X11-Age at marriage(0.09%) with respective percent variations expressed in the parentheses accounted for the role stress of farm women in macro system (Appendix n, Table d).

APPENDIX - N

Table e. Step down regression analysis of demographic variables on the overall systemic role stress.

Step No	Name of the variable dropped	R^2	Percent variation	F value	Partial 'b' value	't' value
1.	------	0.3704	-------	6.4450	-------	-------
2.	No of children X12	0.3704	0.0000	7.0115	-0.2037	-0.113
3.	Age at marriage X11	0.3703	0.0001	7.6787	1.0582	0.234
4.	Age Of Women X1	0.3700	0.0003	8.4706	0.3834	0.308
5.	Material Possession X6	0.3689	0.0011	9.4028	1.8203	0.359
6.	Marital Status X10	0.3682	0.0007	10.5864	-1.9971	-0.634
7.	Family Size X9	0.3649	0.0033	11.9466	0.5119	0.924
8.	Family Type X8	0.3609	0.0040	13.7128	-2.3463	-1.122
9.	Income X4	0.3558	0.0051	16.0861	-2.0738	-1.024
10.	Farming experience X13	0.3495	0.0063	19.5360	-2.6428	-1.781
Total variation of dropped variables			-----		0.0209 (2.09%)	

Over all systemic stress:

The step down regression analysis of 13 demographic variables (Appendix N, table e) on the role stress of farm women (over all systems). All the 13 variables in the first step of regression analysis contributed for 37.04% variation, a perusal of table (Appendix n, Table e) shows that 9 variables were eliminated in the 10th step of analysis all these 9 dropped variables contribute a variation of 2.09% of variation against the contribution of 27.04% variation caused by 13 variables, the least contributing variable was the X12-Number of children (0.03%) followed by X11-Age at marriage (0.01%), X1-Age of the women (0.03%), X6-Material possession (0.11%), X10-Marital status(0.07%), X9-Family size(0.33%), X8-Family type (0.40%), X4-Income(0.51%) and X13-Farming experience(0.63%) with the respective percent contributions as indicated in the parentheses.

APPENDIX O

Table f. Step down regression analysis of personality and family process variables on micro system role stress

Step No	Name of the variable dropped	R^2	Percent variation	'F' value	Partial 'b' value	't' value
1.	-----	0.5779	-----	9.3564	-----	-----
2.	Conflict X12	0.5779	0.0000	9.7643	0.0085	0.012
3.	Masculinity X8	0.5779	0.0000	10.5621	0.0208	0.092
4.	Locus of control (Powerful others) X4	0.5778	0.0001	12.5884	0.0642	0.150
5.	Locus of control (Chance control) X5	0.5776	0.0002	13.8985	-0.0868	-0.242
6.	Acceptance & caring (FE) X13	0.5763	0.0013	15.4242	-0.1586	-0.693
7.	Self esteem X12	0.5751	0.0012	17.3340	-0.1530	-0.683
8.	Femininity X7	0.5722	0.0029	19.6509	0.3933	1.036
9.	Androgyny X9	0.5686	0.0036	22.6772	-0.1257	-1.145
10.	Coping (Avoidance) X15	0.5618	0.0068	26.5372	0.2581	1.587
11.	Cohesion X10	0.5566	0.0052	32.5709	-0.2985	-1.679
Total variation of dropped variables ----- 0.0213(2.13%)						

Micro system :

In micro system, the perusal of the table (Appendix O, table f) shows that out of 16 independent variables 10 variables were eliminated up to 11th step of analysis .All these 10 dropped variables contribute for 2.13 percent of variation against the 57.79 percent of variation contributed by a total of 16 independent variables. The least contributing variables were X12-Conflict and X8-Masculinity, which were dropped at 1st and 2nd steps of analysis with zero percent variation each. The subsequent variables dropped were in the order of X4 (0.02%), X13 (0.13%), X12 (0.12%), X7 (0.29%), X9 (0.36%), X15 (0.68%), and X10 (0.52%), with the respective percent variations as indicated in the parentheses (Table f of Appendix O).

APPENDIX O

Table g. Step down regression analysis of personality and family process variables on meso system role stress

Step No	Name of the variable dropped	R^2	Percent variation	'F' value	Partial 'b' value	't' value
1.	-----	0.5778	-----	1.5025	-----	-----
2.	Femininity X7	0.5778	0.0000	1.5078	-0.2674	0.038
3.	Conflict X12	0.5777	0.0001	1.6309	0.2147	0.313
4.	Locus of control(CC) X5	0.5776	0.0001	1.7743	0.0134	0.220
5.	Locus of control(PC) X4	0.5774	0.0002	1.9325	0.3135	0.323
6.	Health X6	0.5771	0.0003	2.1197	-0.2924	-0.410
7.	Locus of control(IC) X3	0.5765	0.0006	2.3225	-0.1939	-0.574
8.	Self esteem X2	0.5760	0.0005	2.5521	-0.1447	-0.612
9.	Coping (avoidance) X15	0.5752	0.0008	2.8643	0.1324	0.834
10.	Coping (approach) X14	0.5741	0.0011	3.1133	-0.1454	-1.012
11.	Cohesion X10	0.5729	0.0012	3.5358	-0.2116	-1.031
12.	Acceptance & caring X13	0.5720	0.0009	4.0654	-0.2346	-1.291
Total variation of dropped variables ----- 0.0058(0.58%)						

Meso system:

Table g of Appendix O depicts the step down regression analysis of 16 independent variables up to 12th step of analysis. All these 11 dropped variables contribute for 0.58 percent of variation against 57.78 percent of variation contributed by a total of 16 independent variables .The least contributing variable was X7-Feminity (0.00%) which was dropped at the first step of analysis with 0 percent variation, followed by X12 (0.01%), X5 (0.01%), X4 (0.02%), X6 (0.03%), X3 (0.06%), X2 (0.05%), X15 (0.08%), X14 (0.11%), X10 (0.12%), X13 (0.09%), with the respective contribution of percent variations as indicated in the parentheses accounted for the role stress in the meso system.

APPENDIX O

Table h. Step down regression analysis of personality and family process variables on exo system role stress

Step No	Name of the variable dropped	R^2	Percent variation	'F' value	Partial 'b' value	't' value
1.	-----	0.6220	-----	4.5870	-----	-----
2.	Conflict X12	0.6220	0.0000	4.9617	-0.0105	-0.043
3.	Femininity X7	0.6220	0.0000	5.3982	0.0346	0.097
4.	Health X6	0.6219	0.0001	5.9139	-0.0459	-0.012
5.	Locus of control (CC) X5	0.6217	0.0002	6.5256	-0.0324	-0.343
6.	Acceptance & caring X13	0.6214	0.0003	7.2667	-0.0567	-0.410
7.	Cohesion X10	0.6209	0.0005	8.1907	-0.0329	-0.315
8.	Expressiveness X11	0.6201	0.0008	9.3548	0.0425	0.387
9.	Locus of control (PC) X4	0.6199	0.0002	10.9503	0.0534	0.183
10.	Coping (Avoidance) X15	0.6183	0.0016	13.0715	0.0231	0.447
11.	Locus of control (IC) X3	0.6145	0.0038	16.0429	-0.3452	-0.527
Total variation of dropped variables ----- 0.0075(0.75%)						

Exo system :

The procedure of step down regression analysis (Appendix O, table h) of 16 independent variables up to the 11th step of regression analysis is explained as follows All these 10 dropped variables together contribute for 0.75 percent of variation against 62.20 percent of variation contributed by a total of 16 independent variables. The least contributing variables were X12-Conflict and X7-Feminity which contributed for zero percent variation and dropped at 1st and 2nd steps of analysis respectively.. The subsequent variables dropped were X6 (0.01%), X5 (0.02%), X13 (0.03%), X10 (0.05%), X11 (0.08%), X4 (0.02%), X15 (0.16%), X3 (0.38%), with the respective percent variations as indicated in the parentheses(Table h of Appendix O).

APPENDIX O

Table i. Step down regression analysis of personality and family process variables on macro system role stress

Step No	Name of the variable dropped	R^2	Percent variation	'F' value	Partial 'b' value	't' value
1.	-----	0.2076	-----	4.2123	-----	-----
2.	Conflict X12	0.2076	0.0000	4.5565	-0.0104	-0.128
3.	Locus of control (CC) X5	0.2076	0.0000	4.9580	0.0909	0.587
4.	Locus of control (IC) X3	0.2076	0.0000	5.4319	-0.0834	-0.229
5.	Expressiveness X11	0.2076	0.0000	5.9992	0.1274	0.533
6.	Health X6	0.2075	0.0001	6.6823	-0.1858	-0.610
7.	Masculinity X8	0.2072	0.0003	7.4949	0.1914	0.733
8.	Acceptance & caring X13	0.2060	0.0012	8.5450	0.2042	0.833
9.	Cohesion X10	0.2049	0.0011	9.8930	-0.1041	-0.912
10.	Androgyny X9	0.2030	0.0019	11.7243	-0.1120	-0.814
11.	Locus of control (PC) X4	0.2003	0.0027	14.4117	0.1732	0.932
12.	Coping (Av) X15	0.1973	0.0030	15.2112	0.1552	1.112
Total variation of dropped variables ----- 0.0103(1.03%)						

Macro system:

The perusal of Table i (Appendix O) shows the step down regression analysis of the 16 independent variables up to 12 steps. A total of 11 variables were dropped up to 12th step and contributed for 1.03 percent of variation against 42.12 percent of variation caused by 16 independent variables. The least contributing variables were X12-Conflict, X5-Locus of control (CC), X3-Locus of control (IC), and X11-Expressiveness, which contributed for zero percent of variation each. The subsequent variables dropped were X6 (0.01%), X8 (0.03%), X13 (0.12%), X10 (0.11%), X9 (0.19%), X4 (0.27%), X 15 (0.30%) with the respective contribution of percent variation as indicated in the parentheses.

APPENDIX O

Table j. Step down regression analysis of personality and family process variables on the over all systemic role stress

Step No	Name of the variable dropped	R^2	Percent variation	'F' value	Partial 'b' value	't' value
1.	-----	0.3285	-----	9.2195	-----	-----
2.	Conflict X12	0.3285	0.0000	9.5886	-0.0939	-0.083
3.	Coping (Av) X15	0.3285	0.0000	10.5205	-0.0656	-0.094
4.	Masculinity X8	0.3283	0.0002	11.6148	0.0648	0.213
5.	Acceptance & caring X13	0.3273	0.0010	12.8773	-0.3911	-0.321
6.	Locus of control (PC) X4	0.3258	0.0015	14.3883	0.6196	0.418
7.	Locus of control (CC) X5	0.3230	0.0028	16.1821	0.9339	0.861
8.	Health X6	0.3197	0.0033	17.4459	-0.3169	-0.991
9.	Femininity X7	0.3171	0.0026	21.5301	0.7192	1.070
10.	Androgyny X9	0.3127	0.0044	25.6376	-0.8161	-1.246
11.	Expressiveness X11	0.3064	0.0063	31.5417	-0.2291	-1.517
Total variation of dropped variables ----- 0.0221(2.21%)						

Over all systems:

The Table j (Appendix O) depicts the step down multiple regression analysis of 16 independent variables up to 11 steps .10 variables were dropped with least contributing variation of 2.21 percent against 32.85 percent of variation contributed by 16 independent variables. The least contributing variables were X12-conflict and X15-Coping (Av) which contributed for zero percent of variation each .The subsequent variables dropped were in the order of X8(0.02%), X13(0.10%), X4(0.15%), X5(0.28%), X6(0.33%), X7(0.26%), X9(0.44%), X11(0.63%) respectively with the respective percent variations as indicated in the parentheses.

APPENDIX O

Table k. Step down regression analysis of personality and family process variables on the role conflicts

Step No	Name of the variable dropped	R^2	Percent variation	'F' value	Partial 'b' value	't' value
1.	-----	0.1578	-----	2.3553	-----	-----
2.	Cohesion X10	0.1573	0.0005	2.5358	-0.0870	-0.398
3.	Masculinity X8	0.1569	0.0004	2.7495	0.0533	0.368
4.	Locus of control (CC) X5	0.1556	0.0013	2.9778	-0.3324	-0.585
5.	Coping (Av) X15	0.1534	0.0022	3.2249	0.1203	0.373
6.	Locus of control (PC) X4	0.1527	0.0007	3.5748	0.4507	0.737
7.	Androgyny X9	0.1517	0.0010	4.0015	-0.8424	-0.787
8.	Expressiveness X11	0.1474	0.0043	4.4101	-0.9245	-1.002
9.	Acceptance & caring X13	0.1440	0.0034	4.9984	-0.5389	-0.884
10.	Femininity X7	0.1390	0.0050	5.7307	0.4434	1.000
11.	Self esteem X2	0.1359	0.0031	6.6260	-0.7434	-1.242
Total variation of dropped variables ----- 0.0219(2.19%)						

Role conflicts

The step down regression analysis in the Table k (Appendix O) shows the analysis up to 11th step where 10 independent variables were dropped. These dropped variables contribute for 2.19 percent of variation against 15 percent variation explained by 16 independent variables together. The least contributing variable was X10-Cohesion with 0.05 percent variation .The other variables dropped were in the descending order of X8 (0.04%), X4 (0.13%), X15 (0.22%), X4 (0.07%), X9 (0.10%), X11 (0.43%), X13 (0.34%), X7 (0.50%), X2 (0.13%) respectively with respective percent variations as indicated in the parentheses.

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