Chapter 1
Introduction

1.1 Introduction

Stress of women entrepreneurs is the focus of this research. Women entrepreneurs work hard raising funds to live and making things at home, without regular hours, job descriptions, and employee benefits. Instead, they put in long hours of work on shifting clusters of tasks on a schedule set by the needs of the day. It was the industrial revolution and the creation of large manufacturing organizations that created conditions for the emergence of 'work'. In a fast moving economy, work is rigid solutions to the elastic concept of change. Surprisingly, these conditions are slowly vanishing. Customized productions are demanding rapid response to changing markets, newly emerging organizational structures, constant need for a work force that could be temporary, part-time, and dynamic with competence to complete specific tasks in one or more teams. In another decade, it is possible that jobs will be to a recognizable extent replaced by part time, temporary, work solutions. Organizations may not be able to afford inflexibility of traditional work, guaranteeing security and satisfaction at work. The new generation organizations may essentially be comprised of temporaries, part timers, consultants, and contract workers who disband after completing a specified task as a member of a project team. It is likely that organizational participants will work on more than a team at a time with regular basis at a specified
location. Emerging technological advancement provides opportunities to work for multiple employers in locations throughout the globe. Flexibility and autonomy are replacing security and predictability ensured by traditional jobs. It is likely that computers, cellular phones, pagers, and the like, will initiate a new and dynamic work environment characterized by multiple employers at the same time in different locations, leading to phenomenal change in the scope for entry of women in the field of entrepreneurship. Employers may tend to opt for providing minimum job description and directions. They may expect an entrepreneurial outlook in their employees with readiness to respond to rapidly changing demands on work. Such an environment entails stressful opportunities with uncertain outcomes. It is likely that women on multiple tasks and on varying roles at home work and paid work may take advantage of the challenging work environment viewed otherwise as sufficiently threatening and demanding to motivate women to recede to the prevailing boundaries existing for women in society. As stress is associated with constraints and demands, and as a set of emerging conditions seem to affect the quality of life of women, it is more than just an occasional need to enquire into the possibilities of promoting entrepreneurship by empowering women. In an environment where downsizing or reengineering in organizations surfaces recognizable stress symptoms in most of the female organizational participants who may be potential unemployables, spontaneous necessity emerges to probe into stress of women entrepreneurs as entrepreneurship could absorb many such women.
Although women go through a cycle of work from homework to paid work to homework, women are exposed to reconcile with pressures placed on them from multiple role demands. Expectations of role senders are not always clearly understood. However, women attempt to satisfy role demands by constant endeavours to compromise with factors such as inadequate resources, role overload, and role ambiguity. Pressures to perform at paid work and at home work enable women to search for effective coping mechanisms. Thus, sources of stress are many and varied. Demands at work act as a major source of stress arising from multiple roles of women entrepreneurs. Understanding work related stress of women entrepreneurs and generating coping interventions, therefore, enter the ambit of this research.

1.2 Scope of the Study

This research attempts to unfold stress of women entrepreneurs and women in selected groups. Workingwomen have unpaid work at home and paid work at the organization. Both forms of work are very important in their lives. Women work in multiple shifts- from homework to organizational work to homework. Perceptions of women regarding their work related feelings have to be understood to get a clear picture of various work related stressors that generate stress and the ways women cope with such stress. It seems useful to draw relevant perspectives from Psychology, Sociology, Anthropology, Economics, and Management to do an in-depth study on
stress of women. An attempt is made to integrate these multi-disciplinary views regarding work stress of women.

The fact that world is divided into male and female spheres, and that male has public sphere and female has private sphere is nothing new. Nor is it news to anyone that these separate spheres are eroding for the past few decades. This erosion takes a very definite form, namely, the movement of women into the public sphere including the paid work place. Women's movement to the world of paid work has spontaneously evoked intense need for changes in family roles. It is important to study the responsibilities of women at work. It is, therefore, timely to look into the changes in the private sphere of life of women.

Women confront role demands at home and at the paid work place. It is worthy to probe into the role system of working women especially that of the women entrepreneurs. Role demands may obviously act as incredible stressors. Women may have to cope with stress, resulting from a set of new roles emerging from their work—both at the unpaid and paid work place with or without abdicating their traditional roles.

➢ Can women do forty-eight or more hours of paid work with the same number of hours at home work in a six days work schedule without detrimentally affecting the quality of their lives?

➢ Can women face the challenges of confronting new opportunities at the paid work place that may ensure job enrichment?
Is there any need to become more aware of the gender-based roles that may act as a powerful stress source?

Do women need more insights regarding the circumstances in which several roles are perceived by the role occupants that may be distressing or eustressing to them without appropriate coping strategies?

Is it likely that workingwomen in many varied roles face a variety of stressors due to major commitments on their time and energy?

How far are theoretical constructions on stress of workingwomen relevant in the group of women entrepreneurs?

Is it possible to identify a set of significantly different and not significantly different stress variables in the group of women entrepreneurs compared to women non-entrepreneurs?

Do they have effective support system to help them cope with stress?

Does stress limit their career opportunities?

Does their coping increase or decrease their potential to accept or reject more stressful opportunities?

Do they expect changes in the distribution of work at home and at the organization?

Are they satisfied with their work?

Can they lead a happy life regardless of where work is carried out?
What types of coping interventions are currently available for them to confront the multifarious challenges in their lives?

Are there gaps between their apparent needs for coping and existing coping interventions?

What type of framework and process can they adopt to develop appropriate interventions to survive and thrive with stress?

Can they think of systems oriented approach to problem solution?

Can they acquire abilities to mobilize resources for coping with stress?

Do they need stress counselling?

Are they willing to access opportunities for stress counselling?

Compared to women in selected groups, do women entrepreneurs have more or less stress?

Compared to women in selected groups, do they have more or less coping abilities?

Is it possible to develop a stress model for women?

Is it possible to develop a stress counseling system?

It seems that there is ample scope for probing in to such varied questions. Invariably, they are brought to the ambit of this research.
1.3 Review of Literature

The word stress has originated from Latin. It means hardship, adversity, or affliction. Stress is the action on a body of a system of balanced forces whereby strain or deformation results. Stress is physical, mental or emotional strain or tension. Strain, meaning to exert to the utmost, is to stretch beyond the proper point or limit. Stress is importance or significance attached to a thing.\(^1\) Stress is a threat to the quality of life, and to the physical, and psychological well-being. In the seventeenth century, the word "stress" is popularly used to mean hardship, strain, adversity or affliction (Chakrapani, 1995). In 1936, Hans Selye has introduced stress as a concept in the life sciences. During the eighteenth and nineteenth centuries, stress is identified with force, pressure, or strain exerted on a material object or person, which resists these forces and attempts to maintain original position.

Stress is defined in engineering as the "ratio of the internal force brought in to play when a substance is distorted to the area over which the force acts" (Hinke, 1973). Stress is perceived as negative influence, which disturbs the natural equilibrium of the body, and includes within its reference, physical injury, exposure, deprivation, disease and emotional distress. Thus, distress, disease, strain, disturbance, and disequilibrium are the words commonly associated with stress. As Lazarus writes, stress refers to a broad class of problems, which are distinct from the other ordinary problems (Wingate, 1972).

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Stress is the “ratio of the internal force generated with in a solid body by the action of any external force which tends to distort body; ‘strain’ is the resulting distortion, and the external force producing the distortion is called ‘load’ (Marshal and Cooper, 1979). Even though physicists and engineers in their studies have initiated the concept of stress, it has flourished through the researches of psychologists and social scientists in the 19th and 20th centuries. One of the early uses of the concept of stress in psychology may be traced back to Common (1935), who has defined stress as some temporary distortions due to external forces and the organism’s efforts to return to its natural state. Stress is viewed as an outcome of the homeostatic tendency of an organism. He has further observed that the physiological reactions of the organism are the same irrespective of the flight or fight condition. Based on these studies, Selye has formulated the ‘General Adaptation Syndrome’. It constituted three stages - the Alarm Reactions, Resistance, and Exhaustion. Canadian physician and physiologist, Hans Selye made a distinction between stress and distress in the 1950s. Stress is the normal set of pressures that focus us, help us jump out of the way of danger and help them see potential problems in adverse. Distress includes those facts which would normally have caused a response in humans and other animals but to which we can no longer respond as nature intended. Some of us internalize the distress and end up with physical illnesses like headache, stomachache or backache. Others pass on the distress to others and take it out on people around us. Both of these are destructive. He has termed these reactions as ‘the General
Adaptation Syndrome” (GAS). Now, it is not only the hardship and struggle as a way of life that causes Selye’s distress, it is much more multi-dimensional and cumulative. There is the impact of personality type on our stress levels and we all have different “stress buttons”. Life events, physical challenges, reactions to change and self-esteem- all lead toward stress. When human body experiences physical stress according to General Adaptation Syndrome, it basically has three levels of response. The first is specific to the stressor that has caused it. For example, during freezing cold, our blood vessels constrict and move away from the surface of the body and our body shivers. The first level responses are termed as “alarm reactions”.

The secondary reactions are almost identical. For example, during stress, we need emergency energy and our body releases the stored energy. Several other reactions occur, like stopping the digestive work and slowing down our immune system, and we perform tasks that are impossible under other circumstances. These reactions are termed as “adaptation reactions”. The final level is called “exhaustion”, when many of the stress related diseases develop because we have used up much of our energy in one area and the other areas no longer can garner the resources to be effective.

Our body passes stress along to various parts of the anatomy, which in turn leads to overt physical symptoms that include the whole body organs and systems, from skin to cardiac functioning. The amount of stress and the type of stress we can handle is different for everyone. That is mainly due to our personality type, although all of us have a certain point, beyond which we
can become seriously ill. Stress is valuable to an extent. Certain stressors lead
to increase in performance followed by a healthy tiredness eliminated by rest.
When we get caught in a self-defeating struggle to close the gap between
what we are capable of achieving and what we think we must achieve, we are
led from eustress (good stress and positive reactions) to distress (over stress
and accumulatively negative reactions), then people are referred to as having
a “breakdown” (David Wayne, 2001).

There are essentially three different, but overlapping approaches to the
definition and study of stress—the engineering model, the physiological model,
and the psychological model. The first two models are obvious among the
earlier theories of stress, while the psychological models characterize the
contemporary stress theory (Fletcher, 1988).

The Engineering approach

This approach treats stress as a stimulus characteristic of the person’s
environment, usually conceived in terms of the load and level of demand
placed on the individual, or some aversive or threatening or noxious element
of that environment (Cox, 1990). It is that which happens to persons, not that
which happens in them; it is a set of causes, not a set of symptoms. It refers to
the objective characteristics of situations. Stress is said to produce a strain
reaction, which although often reversible, can, on occasions, prove to be
irreversible and damaging. This concept of stress has grown and individual
differences are used to account for differences in stress resistance and
vulnerability.
The Physiological approach

This approach has received the first impetus from the work of Seyle (1950, 1956). He defines stress as a state manifested by a specific syndrome which consists of all the non specific changes within the biologic system that occur when challenged by aversive or noxious stimuli. Stress is treated as generalized and non-specific physiological response syndrome. The stress response is largely conceived of, in terms of the activation of two neuroendocrine systems, the anterior pituitary adrenal cortical system and the sympathetic adrenal medullary system. These responses were tri-phasic in nature involving an initial alarm stage followed by a stage of resistance, giving way to under some circumstances to a final stage of exhaustion. Repeated, intense, or prolonged elicitation of this physiological response increases the wear and tear of the body and contributes to what Seyle has called the disease of adaptation.

The Psychological approach

This approach overcomes the criticisms levelled against the former approaches. It considers stress in terms of the dynamic interaction between the person and the work environment. It is either inferred from the existence of problematic person-environment interactions or measured in terms of the cognitive processes and emotional reactions, which underpin those interactions. There is consensus developing around the definition of stress. It is consistent with that of ILO (1986) and WHO (1986) and with that of developing literature on personal risk assessment (Cox and Cox 1985).
Two stress theories identified in this model are the interactional and transactional stress theories. Interactional theories of stress focus on structural characteristics of the person’s interaction with the work environment. Accordingly, stress is likely to occur, and well being likely to be affected when there is a lack of fit in either or both aspects of objective and subjective environment.

The transactional theories of stress focus on the cognitive processes and emotional reactions underpinning individual’s interactions with their environment. Accordingly, stress is a psychological state, involving aspects of both cognition and emotion. They treat stress as the internal representation of particular and problematic transactions between the individual and the environment (Tom Cox, 1993).

Stress terminology has undergone noteworthy changes during 1950s. Stress is perceived as the resultant of the mismatch between person and environment (Wolf, 1953). It conceives stress as a dynamic and inevitable state of human organism. Since stress is a dynamic state within an organism in response to a demand for adaptation, living creatures are continuously in a state of more or less stress (Wolf and Goodwell, 1968). Stress is typically associated with constraints and demands, the former preventing you from doing what you desire and the latter referring to the loss of something desired. Constraints and demands lead to potential stress which when coupled with anxiety or the outcome and the importance of the outcome, leads to actual stress (Robbins, 1996).
The concept of overload contributed by the physical sciences is also subjected to change- "we should not consider stress as imposed upon the organism, but as its response to internal processes which reach those threshold levels that strain its physical and psychological integrative capacities close to or beyond their limits" (Basowitz, 1995).

Researchers have highlighted the importance of perception causing stress for a person. This is not a simple perception of the elements of a situation, but a judgment, an interference in which the data are assembled to a constellation of ideas and expectations (Lazarus, 1966). Researchers have also focused on identifying the individual orientations in explaining stress. It is stated that stress occurs when demands on person exceeds his adjustment resources (Lazarus, 1969). The researchers have further explained that the environment stressful to one person may not be so for another person. Stress is the process that occurs in response to events that disrupt, or threaten to disrupt, our physical and psychological functioning. It is a many faceted process that occurs in reaction to events or situations in our environment termed stressors. An interesting feature of stress is the wide range of physical and psychological reactions that differ from person to person and from time to time.

In simple terms, stress occurs only to the extent that the persons involved perceive that the situation is somehow threatening to their goals (referred to as primary appraisal) and that they will be unable to cope with these dangers or demands (often described as secondary appraisal; Croyl,
1992; Lazarus & Folkman, 1984; Robert A Beron, 1995). Hence, the researchers investigated stress in relation to personality traits. The pioneering research work of Rosenman et al. (1964 and 1966) reveal the relationship between the speed and impatience in the behaviour of a person referred to as Type A behaviour and coronary heart diseases. Aplley and Trumbull (1967), cite research evidences to reveal the primary responsibility of personality, demographic factors, and physical make up, past experience, and motivation for person's inability to cope with stress. They have devised a method to construct an individual's vulnerability profile. Essentially, it means the incorporation of personality variables in the area of stress research.

When the term stress is used in the psychological context it is not necessarily equivalent to systemic stress. Psychological stress is in general a broader term encompassing both systemic stress and the conditions preceding systemic stress (Cofer and Appley, 1964). In psychology, stress refers to a state of the organism resulting from its interaction with environment. Physical and neurological stimuli are primarily studied in physiology and psycho-biology as systematic stress and psycho-social stimuli in psychology as psychological stress (Agarwala, Malhan, and Singh, 1979). It is understood that the concern of the physiologists is primarily with physiological changes; psycho-physiologists with health and behaviour; and psychologists with deviation at the psychological (anxiety, depression) and behvioural levels such as withdrawal or aggression (Pestonjee, 1989).
Stress refers to any characteristic of the environment, which is a threat to the individual (Caplan et al., 1975). The potential for stress emerges when an environment situation is perceived as generating a demand, which threatens to exceed the capabilities of a person and there is inadequacy of resources for meeting such a demand (MC Garth, 1976). Ivancevich and Matteson define stress simply as "the interaction of the individual with the environment", but then they go on to give a more detailed working definition as follows. "An adaptive response, mediated by individual differences and/or psychological processes that is a consequence of any external (environmental) action, situation, or event that places excessive psychological and/or physical demands upon a person". Beehr & Newman define job stress as a condition arising from the interaction of people and their work, characterized by changes within people that force them to deviate from their normal functioning. In short, stress is defined as an adaptive response to external situation that results in physical, psychological, and/or behavioural deviations for organizational participants (Fred Luthans 1995). Mc Grath (1979) views stress as neither a stimulus, nor a response, nor an intervening variable but rather, a collective term that deals with any demands that tax the system (physiological, psychological or social) and the response of the system to the taxing demands. Two models of stress are described. On the one hand, it is an embodied phenomenon i.e. a set of physical responses to unfavourable work conditions like headache and sleeping problems. And stress here is like any other form of illness. On the other hand, stress is seen as an emotional
response to perceived problems. Here, stress is conceived as an intellectual reaction to external demands and expectations. It is complicated to base the experience of stress in either of these two entities. It is experienced in the body, the stressed body, but equally experienced as an emotional state. There is, thus, a certain degree of indeterminacy in stress. It is in-between embodied as well as emotional, personal as well as social and is not based on logocentric categories. In short, stress is an ambiguous, indeterminate, illness in which the bodily disorders and complex or contradictory emotions are entangled (Alexander Styhre, 2002). P. Webster defines stress in different ways including “a factor causing mental strain or tension, the physical or mental state resulting from such strain”, but what it does not say is that stress can be good as well as bad. In organizations, bad stress is strain that comes too often, in too high a dose or at the wrong times. Bad stress environments can easily self-generate and grow. Bad stress is caused by unsound management practices and the symptoms include unwillingness to commit to deadlines, missed targets, and rare risk taking. By contrast, good stress environment offers challenge, and are goal driven. Trying to create a stress free environment will result in failure. It is effective if stress is embraced in small doses and as a catalyst for change. Good stress is thus channelized through a system of performance based on punishments and rewards; it inspires confidence, which is calming, and it conveys a sense of urgency to achieve the best. The attributes of a good stress manager are, courage, management by example, being armed with facts, offering alternatives, good
communication skill, adaptability, training top to bottom and setting measurable goals (Peg Gamse, 2003).

Thus, Manson (1975) reviewing the literature on stress remarks that there exists lack of clarity and consensus regarding its definition.

Stress is widely used to refer to (a) stimulus where the external force acts on the organism (b) response where changes occur in the psychological and physiological functions of the organism (c) an interactional outcome where an external force interacts with the internal resources and (d) more comprehensive combinations of the above factors. Stress is thus 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 (Smith, 1994). Stress is typically associated with constraints and demands, the former preventing you from doing what you desire and the latter referring to the loss of something desired. Constraints and demands lead to potential stress which when coupled with anxiety or the outcome and the importance of the outcome, leads to actual stress (Robbins, 1996).

Stress, thus, is a dynamic condition in a person who is confronted with an opportunity, constraint, or demand related to what he or she desires and for which the outcome is perceived as uncertain and important (Pestonjee and Pareek, 1997). Pestonjee (1992) has identified important sections of life where stress persisted. They are (1) job and organization sector that covers work environment, tasks, policies, responsibilities, accountability, power, rewards,
subordinates, peers and superiors and work hours. (2) social sector that covers political and cultural factors, religion and caste, recreational facilities, health services, and educational opportunities.

Stress can be perceived as eustress denoting positive stress and distress denoting negative stress (Selye, 1974). Stress is perceived as electricity, which can glow up or burn out an electrical appliance, the protection of which attempts to guarantee stability by regulating mechanisms like voltage stabilizer. Burn out denotes the harmful effects of stress resulting in less functional or dysfunctional consequences such as exhaustion, irritation, and ineffective performance, devaluing of one's self and / or other problems of health such as coronary diseases, peptic ulcers, and hypertension.

Schesmerhern Jr, Hunt et al. (1994) have expressed similar perspectives. Stress is a state of tension experienced by individuals facing extraordinary demands, constraints, or opportunities. There are two faces of stress—one constructive and the other destructive. The constructive stress which is moderate and acts in a positive way for the individual and for the organization by increasing effort, stimulating creativity, and encouraging diligence in ones work, is termed as eustress. Destructive stress, which is dysfunctional for the individual and for the organization by overloading and breaking down a person's physical and mental systems, is termed distress. Stress is stated, as that caused by a stimulus, that the stimulus could either be physical, or psychological and that the individual responds to the stimulus in some way. It is defined as a person's adaptive response to a stimulus that
places excessive psychological or physical demands on that person. Distress is the unpleasant stress that accompanies negative events, and eustress is the pleasurable stress that accompanies positive events (Gregory Moorhead and Ricky W. Griffin (1999). Several authors have studied burnout (Edelwich and Bradsky, 1980; Maslach, 1976). Professional articles and journals have widely covered this topic (Nic house, 1984; Tanner, 1983; Blare, 1982). The occurrence of burn out in 25 different occupations is documented in the research of Silversteen (1982). Burn out appears to be a response to interpersonal stressors at work, in which an overload of contact with people results in changes in attitude and behaviour towards them. Burn out refers to a syndrome of emotional exhaustion, depolarization, and reduced personal accomplishment that can occur in individuals who do some kind of people work (Maslach and Jackson, 1986). Stress is an inevitable part of life, whether you are young or old, rich or poor, male or female. Good stress is that which comes with new ventures or happy events and is not harmful to some extent, but becomes bad if there is a constant barrage of personal and social complications. A steady diet of stress is responsible for the majority of illnesses, and has been linked to life threatening conditions. Emotional problems like depression, anxiety, and insomnia are often traced back to stress. Stress is one facet of life, which will not go away. And the motto is “don't stress – decompress” (Brenda Adderly, 2000).
Research on stress, thus, focuses on the ill effects of stress on the human system. Researchers concentrate on the identification and management of the causes of 'strains' that were primarily physiological which have led to several illnesses including cardiovascular diseases, as such illnesses had a direct impact on the life span of human beings. Medically speaking, stress is the rate of wear and tear on one's body caused by living. It is the physical, mental, and chemical adjustments that one's body makes in accordance to the circumstances of one's life. In other words, stress is a response to what is happening around you. It is the process the body uses to keep balance and sustain life when various demands are made on a person. It can be good, as well as bad for that person. It is like electricity, warming up a person and lighting the life, or giving a fatal charge. And stress is always with the person. The important concept is learning how a person's body responds to the demands of stress. When stress becomes prolonged or particularly frustrating, it becomes harmful - causing distress or "bad stress." Stress comes from a variety of sources. Customary anticipated events in life causing stress can be influenced by personal decisions and cause a positive and stimulating form of stress. They become distress only if several events cluster into a short time period or when you resist them. Unexpected life events are sudden and cannot be controlled by a person and the stress symptoms are often sudden and severe but are not chronic. Progressive accumulating events develop over a period of time and are not easily relieved. The intensity of stress gained momentum and one feels increasingly worn out and unable to
cope (Mathews, Wayne, 2001). The body’s response to stress can involve both physical and behavioural effects. Physical effects may include headache, musculoskeletal disorders, impaired sleeping and lowering of resistance to infections. Possible behavioural effects include increased anxiety, and irritability, increased reliance on and use of socially acceptable drugs such as tobacco and alcohol, aggression, competitiveness, impatience; reduced attention span, and impaired memory, which are usually short term can cause no harm (Cox, T 1993). There is widespread recognition that stress at work has undesirable consequences for the health and safety of individuals. The deleterious effects of stress are both widespread and diverse, to the extent that many people would regard stress as the principal threat to human well-being. The experience of stress at work contributes to ill health in at least two ways. First, stress is associated with changes in attitudes and behaviours that contribute to the maintenance of a healthy state. These may manifest by inhibiting health-promoting behaviours such as exercise and relaxation, and by increasing health-threatening behaviours such as smoking and excessive alcohol consumption. Secondly, responses to stress may interfere with normal physiological function, inhibiting the body’s natural defenses or promoting pathogenic change (Nichole Simpson, 2000).

Work stress and its implications for the mental and physical health of individuals, and the productivity of industry more generally, is currently a topic of widespread interest to government departments, managers, occupational physicians and other health professionals. The nature and
consequences of occupational stress has been widely studied for several decades, focusing mainly on the alleviation of work stress. The current trend in stress research is to adopt a "person-environment' fit perspective, emphasizing on individual's dispositional characteristics and coping patterns as well as subjective and objective work environment encountered by the individual" (Katherine R Parkes and Timothy J Sparkes, 1998).

The shift in perspective in research on stress has occurred subsequent to the Yerkesodson Law of animal behaviour confirming that a certain level of stress is initiated by researchers realizing that an ideal level of stress would help bring out the most creative aspects in the performance of a person. Thus, the theory of optimal stress is confirmed and modified by later researchers (Hammes, 1956; Brood Burst, 1957; and Lowe and Mc Grath, 1971). The hypothesis that a moderately high level of stress is a condition for creative activation has gained recognition. Creativity is considered a dependent variable in subsequent researches on stress (Sampson, 1980). It is natural and healthy to maintain optimum levels of stress for productivity, achievement, success, and effectiveness (Pestonjee, 1992).

While adult models of stress and coping processes have been postulated (Lazarus& Folkman, 1984), there is a paucity of models for adolescents. Shermis and Coleman (1990), on adolescent stress, states, that there are five components- environmental factors, environmental moderators, personal factors, stress outcomes, and behavioural outcomes. It is the adolescents' perception of support that actually determines the extent to
which the effects of stress are moderated. Behavioural outcomes, which are linked to stress outcomes, are considered as secondary responses to stress. For example, behaviours such as drug abuse, delinquencies, dropping out of school are maladaptive behaviour responses to stress. Thus, the primary source of stress for adolescents appears to be chronic interpersonal and nonsocial problems. Micro- stressors like daily hassles make them feel less capable of solving problems and often resort to avoidance, shift causal attributions to factors beyond their control, or adopt irrational beliefs (Shermis, M. D. & Coleman M., 1999).

Stress relating to work environment is labelled as work stress. Work stress is also identified as job stress. Work or job stress is person’s reactions to the characteristics of the work environment apparently threatening to that person. The concept of stress in organizational psychology has different labels such as organizational stress or job stress or work stress (Shailendra Singh, 1990; Parker and Deotis, 1983) or occupational stress (Ross and Altmair, 1994; Luthans, 1989; Srivastava and Singh, 1981). The estimates of the scale of occupational stress have increased over the last decade. While there is no significant change in the stress levels of males and females, educational background, marital status, age, and job category were found to be factors, which influence the stress levels. This shows that the scale of occupational stress is associated with both demographic and occupational factors, and stress appears to be a direct function of the number of these features that are
present although stress at work is not an automatic consequence of having these characteristics (Andrew Smith, Carolyn Brice et al., 2000).

Much of what is currently published on occupational stress and health is weak methodologically. The available evidence is, in part, based on cross sectional studies in which the key variables are measured and linked only in terms of self-report. While it would be unwise to reject out-of-hand, all such studies, the methodological sophistication necessary for their proper design, analysis, and interpretation is often lacking. Secondly, much of what is published is redundant in that it simply demonstrates well-established theories and there is no significant gain in knowledge. There is evidence to suggest that work is only one of the number of possible areas or aspects of life which can give rise to the experience of stress. There has been an assumption that discrete, time limited "life events" requiring change or adaptation are associated with the experience of stress and may contribute to a wide range of disorders. Many attempts are made to identify and scale such stressful life events (Dohrenwend and Dohrenwend, 1974; Dohrenwend et al., 1988), and some progress is made in determining the relative importance of different types of events (Dohrenwend B.S, Krasnoff, 1988).

Definition of stress is not simply a question of semantics- a play with words. It is important that there is agreement, at least in broad terms, on its nature. A lack of such agreement will hamper research in stress, and subsequent development of stress management strategies. It is a popular misconception that there is little consensus in the definition of stress as a
scientific concept or that stress is in some way indefinable and immeasurable (Tom Cox, 1993).

The interactions of work conditions with characteristics of the workers are such that the demands of work exceed the ability of workers to cope with them (Ross and Altmairs, 1994). Stress arises when the individuals perceive that they cannot adequately cope with the demands being made on them or with threats to their well being, when coping is of importance to them, and when they are anxious or depressed about it. Thus, experience of stress is defined by, first, the realization that they are having difficulty coping with demands and threats to their well-being, and second, that coping is important and the difficulty in coping worries or depresses them. The effects of stress are therefore clearly distinct from those of lack of ability on performance, as there is a question of consciousness in relation to stress (Cox T, 1990). The state of stress is embedded in an on-going process which involves, individuals interacting with their environment, making appraisals of those interactions, and attempting to cope with, and sometimes failing to cope with, the problems that arise. The experience of stress at work is, therefore, associated with exposure to particular conditions of work, both physical, and psychological. It is usually accompanied by attempts to deal with the underlying problem and by changes in cognition, behaviour, and physiological function. This is adaptive, in the short term and a threat to health, in the long term. The stress state is a conscious state, but the level of awareness of the problem varies with the development of that state. Coping is
an important component of the stress process. The effects of stress are physiological, social, and psychological. The experience of stress at work is associated with changes to both behaviour and physiological function, which may both, be detrimental to health. Stress, in short is one link between hazards and health (Tom Cox, 1993).

A condition arising from the interaction of people and their jobs and characterized by changes within people that force them to deviate from their normal functioning is work stress (Bheer and Newman, 1978). Work stress is perceived as forces or stimuli or cognition from within or without, which create threat to the individual (Shailendra Singh, 1990). Person and / or organization related variables and predisposing stress conditions might be considered as antecedents of stress. Work stress considered may be identified in a person as a continuum of stimuli generated from the work environment. Individual variations in the perception of such stimuli causing stress are predominating factors that are to be focused in stress research.

A central concept of occupational psychology is that of “stress” and one of its main concerns is the effective management of work stress. The basic health and safety equation of hazard = risk = harm has been considered as a conceptual framework for understanding the nature and management of work stress. A hazard is an event or situation or an aspect of work that has the potential to cause harm. The concept of risk relates to the linkage between exposure to the hazards or work and the harm that the exposure causes. The experience of stress thus provides a link between the individuals’ exposure to
the hazards and the related ill effects on their health. It can be dealt with by reducing exposure to stressful health hazards, or at the individual level, by treating the experience of stress itself and its health effects (Tom Cox, Amanda Griffiths et al., 2000). Stress is an emotional experience that is complex, distressing, and disruptive and can arise from two different sources of work. They are anxiety about exposure or threat of exposure to the more tangible physical hazards of work, and exposure to problems in the psychosocial work environment. This psychological and organizational hazards are defined as those aspects of work design of the organization and management or work and their social and environmental contexts, which have the potential for causing psychological, social / or physical harm (Cox, Tand, Griffiths A.J., 1995). It is widely argued that stress may influence health and job effectiveness, but we have little information on how frequently such effects occur. It is quite plausible to distinguish between the "subjective distress" produced by stress at work and objective health and performance outcomes. Effects of stress may show great variation because of the influence of bias caused by impact of stress being measured by self-report (Andrew Smith, Sarbjit Johal et al., 2000). Stress can be defined in several ways and it is important to use it as an approach that covers the different aspects of the concept. First of all, occupational stress has often been regarded as an aversive characteristic of the working environment. This has resulted in stress being grouped with hazards e.g. noise and research being directed to measurement of exposure levels and examination of the relationship between these and

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health/performance outcomes. Secondly, stress is viewed as a physiological response to a threatening or damaging environment. Stress is also viewed in terms of an interactional framework.

Thus, work stress may be stated as work environment + individual (Desai, 1993).

Since stress emerges from the demands on a person and a variety of demands emerge from the work environment of that person, a number of researches had focused on stressor, stress, and strain in the work place. Stress is a physiological response to sensory or psychological experiences. Stimuli, which may cause stress, are termed stressors, which can take many forms and have different outcomes for different individuals. In a government discussion document stress is defined as the “reaction people have to excessive pressure or other types of demand placed on them” (HSC, 1999).

Work stress is a growing concern as it may result in psychological problems of the organizational participants. Many research studies indicate that occupational stress or job stress or work stress with its detrimental influence on person’s health could lead to low productivity, high absenteeism, less activity, and high dissatisfaction with work (Cooper and Marshal, 1978; Mattison and Ivancevich, 1987). As stress has recognizable influence on the organizational participants, the study on work stress has significant economic implications for organizations.
One of the major areas of research in India in the field of organizational stress has first appeared in the work of (Kahn et al., 1964). An organization can be defined as a system of roles. A person relates to the organization through his/her roles, which generates expectations on the roles by the role senders. The person attempts to respond to those expectations. However, the response depends on sufficiency of the personal and organizational resources to satisfy those expectations. (Khan et al., 1964) are the early researchers focusing on organizational stress in general and particularly stress arising from multiple roles? It is perceived as the degree of incompatibility of role expectations of the role senders and role perception of the focal person. Role system has built-in potential for stress.

Behaviour of persons in relation to role expectations is called role behaviour. Research on role behaviour gathered momentum with the work of (Khan 1964). Pestonjee, 1992, undertook a series of research on the varied nature of stress arising from multiple roles in relation to personal, group, and organizational variables.

Certain concepts developed by ancient Indian scholars appear similar to the various aspects relating to such stress – dhukha (pain, misery), Kama, or trisna (desires), klesa (afflictions), atman and ahankara (self and ego), adhi (mental aberrations) prajnaparadha (failure or lapse of consciousness). The relevance of body–relationship for treatment modalities is widely recognized in ayurvedic and other holistic systems of Indian medicine, which offer mechanisms for understanding stress (Rao 1983; the conception of Stress in
Indian thought- the theoretical aspects of stress in Samkhya and Yoga systems). The writing of Palsane, Bhavasar, Gorwani and Evans, 1986 imply that that imbalance of body - mind relationship cause klesas. Klesas are not mental processes but are set of hindering load on mental process, which produces an agitation, which acts as restrictions or hindrances. The fundamental (non cognition) avidya of such changes lead to phenomenological stress. Avidya leads to asmitha (self appraisal), raga (object appraisal) dvesha (threat appraisal) and abhinivesa (coping orientation). These appraisals on those concerning self, object, and the threat are used for reality testing. Faulty evaluation in either one or all of these may produce stress. The samkhya system holds that the feeling of stress is experienced by a person in the course of interaction with the world around that person. This system identifies three types of stress namely (personal) adhyatmik, (situational) adhibhotik, and (environmental) adhidevik. Personal stress can be classified as physical stress and psychological stress. Physical stress emerges from imbalances between the three fundamental physiological constituents, namely vata, pitta, and kapha. Psychological stress emerges from emotional states. Situational stress emerges from unwholesome interpersonal transactions, which may include conflicts, competitiveness, and aggression. Factors generating environmental stress include natural calamities and extremes of temperatures.

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2 The traditional concept of stress in the Indian tradition, journal of psychology
1.4 Selected Models of Work Stress

Selected models of work stress are described in this chapter. They are Person-environment fit model (1.4.1), Stress cycle model (1.4.2), Transactional model (1.4.3), Interactive transactional process model (1.4.4) and Role episode model (1.4.5).

1.4.1 Person-environment fit model

French, Rogers, and Cobb, 1974, introduced this model in stress research. The fit between the person and the work environment is projected in this model. Two types of fit are explained. The first type discusses the ways a work occupant with his/her abilities and skills match work related demands. The second type projects the extent of work environment providing facilities to match the demands of the work occupant. Thus, the person-environment fit model establishes stress as a condition resulting from the mis-match between the work occupant and the work environment.

1.4.2 Stress cycle model

McGrath proposed the stress cycle model in 1976. The author conceptualizes five types of stress: task based stress, role based stress, stress intrinsic to behaviour, stress arising from social environment in the form of inter-personal relations, and stress within the person system. McGrath developed stress model based on the perception that stress behaviour in an organization is a product of interaction among three sets of variables:
(i) Physical and technological environment in which behaviour take place
(ii) Interpersonal relationships with in which the behaviour takes place
(iii) The Self-system of the focal person.

1.4.3 Transactional model of stress

Cox (1978) regards stress as a personal phenomenon. It emerges from the transaction between the person and his or her situation. Transactional model is based on four components such as personal resources, internal needs and personal values, environmental facilities and support, and external environmental demands and constraints. Transactional model of stress is similar to person environment- fit model. Continuous appraisals of demands confronting one's abilities to meet those demands occur in the stress model. The essential part of the model is the presence of transaction at different situations. A unit of transaction rests on feedback mechanism that attempts to maintain person's state of balance or equilibrium condition.

1.4.4 Integrative -Transactional process model

The model propounded by Schuler (1982) emphasizes the reciprocity of transactions. It clearly states that transactions are not unidirectional, but are essentially reciprocal. This model is an integrative one as it is developed for research in the multidisciplinary areas. The components of this model include environmental stressors, personal traits, and personal responses.
14.5 Role - Episode model

Kahn (1964) postulated that urge for identity is a major concern for people. This leads to seek satisfaction at work situation but usually persons are confronted with conditions of conflict and ambiguity. This model identifies role stress, role conflict and role ambiguity. The model stresses the interaction between role-senders and the focal-person. Thus, the model incorporates organizational, personal, and interpersonal factors that affect role episodes.

The above-discussed models provide a theoretical understanding of role system at work, match between personal and work related factors, interaction among the various components in generating stress conditions, and influence of coping factors in the management of work stress.

The present study is designed after recognizing the significance of incorporating the multifarious activities women do at home which are unpaid, with organizational work which are paid. For women entrepreneurs, and for other women, homework and organizational work constitute work. Nonetheless, the inter-actional model of stress is widely used in studying work stress of women entrepreneurs and other workingwomen.
1.5 Selected Models of Coping

There are different models to understand the various issues of coping. A few models of coping are described below.

1.5.1 Kahn et al.'s Model

This model of coping refers to coping process that aims at stress reduction as the main theme. Role-senders are given clear messages about role perception. Stress is reduced by suitable coping interventions. Coping interventions focus on narrowing the difference between role perception and role expectations. The coping model tends towards achieving role congruence to manage stress.

1.5.2 Mc Grath's model

This model considers a sequence of behaviour of the organizational participants in actively preventing stress or responding to stress induced situations.

1.5.3 French et. al.'s model

Here, coping focuses on the activities of the individual directed at changing the relevant environment or changing the personal factors to achieve the best person-environment fit.

1.5.4 Newmann and Beehr's model

This model heavily rests on person-situation differences that decide the effectiveness of stress management strategies. Three stages of interaction
are identified. In the first stage, stressors interact with personal and situational factors to generate stress. In the second phase, stress interacts with personal factors, and situational factors. And in the third stage, responses or reactions interact with personal and situational factors to produce the ultimate outcomes.

### 1.5.5 Shuler’s model

The integrative transactional process model describes the coping trigger, primary appraisal, strategy development, strategy selection, strategy implementation, strategy evaluation and feedback as the seven aspects involved in the process of coping. Integrating all these aspects evolves the cycle of coping.

### 1.5.6 Pareek’s model

This model proposes two styles of coping strategies—dysfunctional and functional coping styles. Coping may be through avoidance of stress-stimulating situations called relative strategy. Relative strategy leads to dysfunctional coping. Coping may also be through confronting or approaching the stress-stimulating situations. This is called proactive strategy that leads to functional style.

### 1.5.7 Moos and Billings’ model

This model describes active cognitive coping which recognizes cognitive redefinition and logical analysis, active behavioural coping which considers information seeking, and positive action taking, and avoidance
coping which acknowledges pull back to non acceptance of stress situation. Active cognitive strategy users are less likely to use avoidance strategies to cope with stress.

1.5.8 Moos and Sinha’s model

This model identified seven dimensions of coping strategies. They were placed in three categories such as, strategies of action on the sources of stress known as preventive strategies, strategies of action on the symptomatic effects of stress known as creative strategies and strategies of action on the escape from the source and effects of stress known as defensive strategies.

1.6 Objectives of the Study

The following are the objectives of the study.

- To understand stress of women entrepreneurs resulting from multiple-roles in terms of general orientation, attitude to sex roles, and coping orientation.

- To identify factors of significantly different stress variables and factors of not significantly different stress variables in the group of women entrepreneurs.

- To understand stress of women entrepreneurs in comparison to stress of women in selected groups - women teachers and women bank employees.

- To develop a stress model for women entrepreneurs.
The present study, therefore, attempts to develop a stress model conceptualizing work as a combination of both homework and organizational work. It studies work stress emanating from the role system composed of multiple roles of women, generating different kinds of work that act as sources of stress that demand abilities and skills of women to cope with stress. Attempt will be done to generate various interventions focusing on empowering women to manage stress.

1.7 Gender Methodology

Thomson (1992) has identified three components of research methodology. They are agenda, epistemology and ethics. Thomson discussed the implications of each of these areas for considering research methods. It is helpful to understand the impact of these components on research methodology.

1.7.1 Agenda

Agenda refers to the focus of one's research. It means what one chooses to study. Although women sometimes have been the objects of scientific enquiry, particularly in the family and relationship fields, such studies often does not capture women's experience. Instead, it frequently has reflected the perspective of the researcher and/or society at large (Sollie and Leslie, 2001). The focus of this research includes searching for empowering women to enhance the quality of their lives.
Although a focus on empowerment requires corrective action such as challenging sexism in current thinking on women and filling in gaps in our knowledge on women, it also requires research that enhances their lives (Thomson 1992). The requirement is doing research “for” women as opposed to “on” women (e.g., Allen and Baber, 1992; Stanley and Wise 1983). It implies study of topics vital to women’s lives that give voice to their experience and that provide guidance on changing their status quo. The various activities women do at home along with their paid work are quite often ignored as work. Public awareness to the breadth of women’s work has to get highlighted.

1.7.2 Epistemology

Epistemology\(^3\) is a branch of philosophy that investigates the origin, nature, methods, and limits of human knowledge. It is generally presumed that the research process should be objective and value free. But Hubbard (1988) notes that research is not a solitary endeavor that occurs in a vacuum but instead is a social enterprise. Empiricist tradition has to be accommodated with women’s experiences on their lives. An attempt is done in this research work to support empirical evidence with women’s experiences by interview and discussion methods.

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1.7.3 Ethics

The research that focuses on women must hear their voices, as research participants are in an attempt to find out healthy interventions to help them achieve higher levels of stress managing abilities to enable them with growth and development. Thus, it is a hard process to respect participants’ experiences and voices without abdicating the responsibility for analysis. Here, in this study, much of the interpretations are based on women’s perspectives. Care is taken not to misuse the information shared by many women on their personal lives.

1.7.4 Methods

Methods refer to the actual empirical procedures used by the researcher. The question of appropriate methods in research often overlooks the importance of the role of qualitative data in understanding issues especially those connected with understanding of family relationships. Interview and group discussion methods extensively used are found to be very powerful tools to collect data about family relationships.

Additionally, qualitative methods will minimize detachment of researcher from the participants, enhance appreciation of contextual issues, recognize diversity, and potentially elevate the participants’ voices and roles in constructing the analytic framework. Sprague and Zimmerman (1989) argue that no one source of knowledge provides a complete picture. Although one’s view of a picture may be constrained by one’s method, the entire picture
is most likely to be revealed when multiple views or methods are incorporated.

1.8 Methodology of the study

A pilot study is conducted among fifteen women entrepreneurs in the district of Ernakulam. Observations are made on the individual differences in the various components of work stress. A few inventories are identified for measuring stress. They include job stress questionnaire of Cooper, occupational stress index of Srivastava and Singh, organizational stress questionnaire of Shailendra Singh and organizational role stress scale of Udai Pareek. Experts are consulted in the selection of appropriate inventories to measure stress. An adapted version of the above inventories is considered as the best available instrument as it is specifically designed to study stress at work arising from the multiple roles of women.

1.8.1 Data and Methods of Data Collection

The universe of the study consists of women entrepreneurs in the district of Ernakulam. It is considered as the target group. A group of women non-entrepreneurs are also identified from the same district. They include women teachers, women bank employees, women doctors, women lawyers, women engineers, and women social workers. Only women teachers and women bank employees are considered for comparison purpose, as the sample size of other groups in the women non-entrepreneurial group is very small. The Sample consists of three eighty one women of which hundred are
women entrepreneurs, and two eighty one are women non-entrepreneurs. This sample is used for item analysis and through factor analytic method significantly different and not significantly different stress variables are identified in the women entrepreneurial and women non-entrepreneurial groups. Hundred women entrepreneurs constitute the target group. Two eighty one women non-entrepreneurs include ninety two women bank employees, hundred and forty two women teachers, twenty three engineers, fifteen doctors, eighteen lawyers, nineteen social workers, and seventy two women selected from other groups of workingwomen. Women teachers are identified from aided private schools. They teach at the high school level (8th, 9th, and 10th grade). The sample of women bank employees consists of ninety-two women bank employees, all of whom are clerks, who work in indigenous scheduled commercial banks.

The universe of women entrepreneurs consists of women entrepreneurs registered in the District Industries Centre at Ernakulam and in the Women's Industries Association of Kerala. Care is taken to include only women entrepreneurs who own and operate their enterprises. Women entrepreneurs who are registrants in the DIC, owning but not operating their enterprises are excluded from the study. Initially, random sampling method is used to select the sample from the universe of women entrepreneurs. Questionnaires are mailed to nine hundred and twenty five DIC registrants from whom two hundred and sixty nine completed questionnaires are received.
Fifty-one questionnaires are eliminated, as they are incomplete. Out of two hundred and eighteen women entrepreneurs, hundred and eighteen are eliminated after personal interviews, as they are not operating their enterprises by themselves.

Entrepreneurs belonging to the tiny sector are only selected for this study. Tiny sector is identified as those enterprises with less than twenty-five lakhs (rupees 25,00,000) investment in plant and machinery. Personal interviews are conducted by the researcher and two research assistants – one holding Master degree in Business Economics and another in Psychology, who are specially trained in data collection.

Selected women entrepreneurs belonged to the age group of 25-40. All of them were married. No one of the women entrepreneurs has postgraduate qualification, 5 percent had education to the level of higher secondary in various disciplines, and the rest have undergraduate degree in various disciplines.

Sample of women bank employees is selected from the registered lists of the members of the All India Bank Employees Association (Kerala chapter) and of the Bank Employees Federation of India. The selected members belong to the Scheduled commercial banks operating in the district of Ernakulam. All of the women bank employees are married and belong to 25 - 40 age group.

The banks from which data are collected are the Federal bank, Catholic Syrian Bank, Dhanalakshmi Bank, and the South Indian Bank. Two hundred
questionnaires are given to the officials of the two organizations of the banks. Twenty filled questionnaires are incomplete in information, ninety two are completely filled and returned, and the rest unreturned.

The sample for the teacher group is selected from aided private schools. The questionnaire is administered in a teacher-training programme organized for aided private schools in the district of Ernakulam. Forty-five filled in questionnaires are collected from that training programme. Two hundred and fifty questionnaires are distributed to the teachers of 3 schools in Ernakulam. Ninety-seven filled questionnaires with completed information are received from the teachers of Bharathiya Vidya Bhavan, Al Ameen Public School, and St. Joseph School at Kalamassery. Forty-three questionnaires are eliminated due to incompleteness in filling the questions. Thus, sample size of the group of teachers is one hundred and forty-two. All of the hundred forty-two teachers are married and are in the 25 - 40 age group.

Women entrepreneurs and women non-entrepreneurs are seen reluctant to divulge their actual income due to various reasons. However, they are ready to share their personal and professional experiences with the researchers without much embarrassment.

Data for the study is collected through the survey method. A questionnaire consisting of hundred and fourteen statements relating to various aspects of stress is used as the primary gathering evidence tool. Ninety-two questions relate to stress arising from multiple roles, twenty-two questions relate to coping orientation, attitude to sex roles, and general
orientation. A five-point scale is used as rating scale to measure the responses. In collecting data from a larger group of three hundred and eighty one women, it is perceived that larger group can support the use of questionnaire data, while smaller groups can support the use of more qualitative approaches such as interview and/or group discussion which could yield supportive information. Therefore, the researcher has used qualitative methods to gather data from smaller groups of women belonging to the target group and the comparison groups.

Each statement in the questionnaire is called a component. Each component was subjected to item analysis based on two-tailed significance test. Components with \( t \) values significant at 0.05 are only selected for grouping to identify a set of factors significantly different for women entrepreneurs. The data are tested for reliability and alpha value is 0.75.\(^4\)

There prevails psychology's traditional statistical approach as well as the qualitative approaches in research in other social sciences. In the study of stress, both approaches are used. Although these different approaches may represent opposing philosophies of science, both approaches are relied to provide a fuller picture of women's experiences. Feminist theoretical perspectives are also studied as they provide a critical context for the understanding of women's lives. This research attempts to bring together a variety of academic backgrounds and methodological traditions. Thus, it

\(^4\) Reliability test- alpha (0.75)
reveals the emerging dynamics of stress processes for women entrepreneurs and other workingwomen.

1.8.2 Components of the questionnaire

The questionnaire has two parts.

- Part one consists of hundred and fourteen statements about perceptions of workingwomen on work related stressors, their general orientation, attitude to sex roles and coping orientation.

- Part two consists of fourteen statements about the background information of the respondents.

1.8.2.1 Collection of data

Multiple methods such as questionnaires, interviews, and discussions are used to collect data.

1.8.2.2 Classification and analysis of data

Statistical package for social sciences (SPSS), version 9.0 is used to process the data.

Factor analysis is done to identify two groups of factors – factors of significantly different stress variables and factors of not significantly different stress variables. Comparisons are made between the target group of women entrepreneurs and the selected groups of women—women bank employees and women teachers who are considered as the comparison group.
The researcher has done comparisons of various inter-components of stress. Discriminant analysis\textsuperscript{5} is done for the groups of women entrepreneurs, women bank employees, and women teachers. Based on the analyses and interpretations, suitable interventions are suggested to address issues relating to stress.

Factor analytic technique is used along with discriminant analyses as the appropriate statistical method for data processing. The suitability of the data for factor analysis is decided by testing the data with Kaiser- Meyer-Olkin measure of sampling adequacy. This measure is a statistic that indicates the proportion of variance in variables, which is common variance, which might be caused by underlying factors.

The value in Kaiser -Meyer-Olkin measure of sampling adequacy test for the data is 0.712. Barlett's test of sphericity was also done to assess suitability of the data for factor analysis. The test showed a significant level of 0.000.

Barlett's test of sphericity is a good indicator of the strength of the relationship among variables. It is used to test the null hypothesis that the variables in the population correlation matrix are uncorrelated. The observed significance level is 0.000. It is small enough to reject the hypothesis.

Factor analytic technique is used to reduce the number of variables and to detect structure in the relationships variables. Variables are therefore classified by this technique. In the first stage, in a sample group of 381

\textsuperscript{5} See Appendix II
women, t-tests are conducted for hundred and fourteen statements in part one and part two of the questionnaire. Variables with probability less than or equal to 0.5 (p ≤ 0.5) are only selected.

Principal components analysis is used as a data reduction method that is, as a method for reducing variables. The extraction of principal components amounts to a variance maximizing (vari max) rotation of the original variable space. In other words it means rotating the axes so as to maximize the variance of the new factor. The decision of when to stop extracting factors basically depends on when there is only very little “random” variability left.

Thus, in principal components analysis, factors that account for less and less variance are extracted. In order to do this, one starts with correlation matrix, where the variances of all variables are equal to 1.0. Therefore, the total variance in the matrix is equal to the number of variables. For example, if there are 10 variables each with a variance of one then the total variability that can potentially be extracted is equal to 10 times 1. Next is looking at the Eigen values. Eigen values represent the variance on the new factors that are successively extracted. These values are expressed as a percent of the total variance. Finally, values greater than 0.5 are selected from the rotated factor matrix to identify relevant factors. In this study, factor analysis encompasses both principal components and principal factor analysis. Correlates between the variables and the factors as they are extracted by default are called factor loadings. Factor loading for each factor is identified to classify the variables. The second stage of factor analysis consisted of reducing 114 variables to 33
variables based on principal components analysis. The first set of factors consisted of 10 variables (1.9.2.1 to 1.9.2.10) that are identified as “significantly different” in the groups of women entrepreneurs and women non-women entrepreneurs. The second set of factors ranging from 11 to 20 (1.9.2.11 to 1.9.2.20) consists the variables identified as “not significantly different” in the two groups. There are 13 coping variables (21 to 33 i.e.1.10.1.1 to 1.10.3.6). They are grouped as factors of general orientation that are represented by variables from 21- 25 (1.10.1.1 to 1.10.1.4). Factors of attitude to sex roles are represented by variables from 26-27 (1.10.2.1 and 1.10.2.2), and factors of coping orientation represented by variable form 28 to 33 (1.10.3.1 to 1.10.3.6).

1.9 Concepts and Definitions

Women entrepreneurs are identified as those women who own and operate their enterprises. Women entrepreneurs are selected from tiny enterprises having investment up to rupees twenty-five lakhs in plant and machinery. Small-scale industrial units, which have investment in plant & machinery up to rupees twenty-five lakhs, irrespective of the location of the unit is given the status of ‘Tiny Enterprises’ by the Reserve Bank of India. Small-scale industrial units are those units engaged in the manufacture, processing, or preservation of goods and whose investment in plant and machinery (original cost) does not exceed rupees one crore. These would, inter-alia, include units engaged in mining or quarrying, servicing and repairing of machinery. In the case of ancillary units, the investment in plant
and machinery (original cost) should also not exceed rupees one crore to be classified under small-scale industry. The investment limit of rupees one crore for classification as small-scale industries has been enhanced to rupees five crores in respect of certain specified items under hosiery and hand tools by the Government of India.

Women teachers are those teachers who teach at the secondary level in the aided private schools. Women bank employees are those who work in clerical cadre at the indigenous scheduled commercial banks. Women doctors are those who work in the private hospitals. Women engineers are those who work in the private industries. Women social workers are those who work in the counseling and rehabilitation centers. Women clerks are those who work in private shops. Women lawyers are those who practice at the lower courts. All the samples are collected from the district of Ernakulam.

Women are classified in to nine groups as women entrepreneurs, women clerks, women teachers, women bank employees, women doctors, women engineers, women lawyers, women social workers and other workingwomen. Stress of women entrepreneurs is compared to stress of women bank employees and women teachers.

1.9.1 Stress

Stress is a dynamic condition in a person who is confronted with opportunity, constraint, or demand related to what that person desires and for which the outcome is perceived as uncertain and important.

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1 Extant instructions from Reserve Bank of India to commercial banks, November 2003
1.9.2 Work stress

Work stress emerges from multiple roles. A role is a position a person occupies in a system as defined by expectations of the role senders and perception of the role occupant (Pestonjee, 1992). Role is composed of role perception and role expectations. Role perception refers to self-perception, that is, perception of a woman about her roles where as role expectation refers to expectation of the role senders. Role system emanates from work. Women have multiple roles at home and at paid work place.

The study is about work related stress arising from multiple roles at home and at paid work place of the women entrepreneurs. Comparisons are also made between stress of women entrepreneurs and stress of women in selected groups.

1.9.2.1 Home work interfering with organizational work7 (γ1)

There is so much of work at home that could be shared by others at home. Women's conditions at organizational work are affected by homework leading to poor quality of work both at the organization and at home. Women are doing too much work at home for too little in return and the workload at home makes women quite irregular at organizational work. Women could not spend more time at their organizational work due to the interference of their family members.

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7 Un paid work place of the entrepreneurs is their homes. Paid work place is referred in this study as organization. In strict sense of the term family is also an organization. But work in the family system is referred as homework and work in the paid work place is called organizational work.
1.9.2.2 Lack of career support and appreciation from family members (γ2)

The family members do not give proper recognition for the achievements of women. Women get very little support in organizationally related activities from their family members. Members of the family are not interested in understanding and appreciating organizational work related needs. They do not show interest and willingness in their work at home.

1.9.2.3 Recognition and personal development at organizational work (γ3)

Organization has many persons who express satisfaction about women's work where as family members do not do so. Unlike at the organization where women work, there is no satisfaction in the tasks women perform at home.

1.9.2.4 Unpredictable role expectations at homework (γ4)

Family members expect women to attend functions and ceremonies conducted by friends and relatives. Women are ambiguous of their roles in the family and need more clarity on those roles. Their family members constantly try to redefine the role of women and their responsibilities at home. The family members positively want women to give greater importance to family responsibilities than to their organizational work.

1.9.2.5 Shortage of time for social and religious functions (γ5)

Women do not get enough time to attend social, cultural, and religious functions because of their responsibilities at home and at the organization.
1.9.2.6 Interest in organizational work ($Y_6$)

The organizational work is an interesting diversion from the tedious tasks women perform at home. But women need more information to be interestingly involved in organizational work.

1.9.2.7 Satisfaction with service to family ($Y_7$)

Women are satisfied with what they do need in their families.

1.9.2.8 Sacrifices for family ($Y_8$)

Women do too many sacrifices in their personal and professional lives and cope with the demands of their family. Their families have very little time to discuss women's issues and actions.

1.9.2.9 Interest in work at home ($Y_9$)

Activities women do at home are more interesting than those they do at organizations.

1.9.2.10 Autonomy at organizational work ($Y_{10}$)

Women have enough freedom at their organizations in all areas of their work.

1.9.2.11 Role overload ($Y_{11}$)

Women at organization and at home together have so much work that they almost break down under pressure. Their holidays have become meaningless as the freedom from their work place is offset by the need for completing the arrears of accumulated work at home. Women feel thoroughly
exhausted at the end of each day and workload is so heavy that they hardly get time for movie, social visits etc.

1.9.2.12 Personal development at organizational work (γ₁₂)

Women can be more energetic at organizational work. Women believe in more meaningful and significant work at organizations than at home. There is more personal development opportunities for learning new skills at the organization than at home.

1.9.2.13 Role support from family members (γ₁₃)

Women do not have enough appreciation from family members for the efforts they take in order to make family life more comfortable. Family members fail to clarify what they expect from women to do for them. No one at home is interested in discussing with them the kind of problems they experience in their household activities.

1.9.2.14 Role expectation of family members (γ₁₄)

Family members expect women to do more for them than women can do under pressures of their organizational work. It is a matter of great concern for women that their family members expect from them too much work at home.

1.9.2.15 Conformity to family expectations (γ₁₅)

Women's work at home is controlled by others' expectations, which they are happy to fulfill and at home, they are able to satisfy the conflicting
demands of their family members. They are happy with the help they receive from others to do their work at home.

1.9.2.16 Training and role models for work at home (γ16)

Women get distracted from organizational work thinking about their responsibilities at home. Unlike at organizational work, there are many tasks they perform at home for which they neither have skills nor training.

1.9.2.17 Role clarity at home (γ17)

Women wish that responsibilities at home were clearly defined as those at organizational work.

1.9.2.18 Priority to organizational work than of homework (γ18)

Women feel that their organizational work is more important than their responsibilities at home and family members feel that women give more importance to their organizational work than to their home work.

1.9.2.19 Information need for work at home (γ19)

Women need more information to be effective in their roles at home.

1.9.2.20 Satisfying role expectations at organizational work (γ20)

Women try to satisfy role expectations at their organizational work

1.10 COPING WITH STRESS

Coping is the process of negotiating with stress. Three categories of variables such as general orientation, attitude to sex roles and coping orientation are identified and explained successively.
1.10.1 General orientation

The predictor or independent variables defined in general orientation in factor analytic model are explained below.

1.10.1.1 Inability to relax ($\lambda_1$)

Women do not like to waste much time on routine activities like bathing, eating, and dressing. On the contrary, they like to finish routine activities as early as possible. They do not talk about their achievements unless the situation demands it and they feel guilty if they are forced to waste time in idle relaxation or holidays.

1.10.1.2 Hyper activity ($\lambda_2$)

Women believe in doing more than one activity at a time. They do not like to waste their time in holidays and in leisurely activities.

1.10.1.3 Quantitative orientation ($\lambda_3$)

Using quantitative measures can accurately assess performance of women in any field. Achievements of women are directly related to their material possession.

1.10.1.4 Satisfaction with health ($\lambda_4$)

Women are satisfied with current status of their health.

1.10.2 Attitude to sex roles

The predictor or independent variables defined in attitude to sex roles in factor analytic model are explained below.
1.10.2.1 Belief in gender equality ($\delta_1$)

Women can be as a competent as men as managers in any organization. They have to equally share the responsibility of participating in socio-economic, political, and cultural activities. Women should share equal opportunities with men to involve in various activities in the society.

1.10.2.2 Sharing of work by both sexes ($\delta_1$)

Women believe that husband and children should share the household work.

1.10.3 Coping orientation

Coping refers to ways of dealing with stress. When a person experiences stress, it is natural to deal with stress depending on ones abilities, skills, and other factors such as support systems. Coping orientations could be either effective or ineffective. Effective coping orientation refers to approach orientation that considers problems of stress as a change or an opportunity and avoidance orientation refers to avoidance of stress.

The predictor or independent variables defined in coping orientation in factor analytic model are explained below.

1.10.3.1 Planned and systematic action ($\eta_1$)

Women always avoid acting hastily, and plan their work according to priorities. They plan their actions and implement them. They are not ready to leave the problems until they solve it.
1.10.3.2 Situational flexibility ($\eta_2$)

Women usually consider several alternatives while dealing with problems. They use their similar previous experiences while solving such problems. Also they try to think over the situation again and understand it more clearly.

1.10.3.3 Spiritual orientation ($\eta_3$)

Women believe that faith in god can bring peace of mind and resort to prayer and meditation.

1.10.3.4 Taking time out for reflex ion ($\eta_4$)

Women try to step back from the situation and try to be more objective. They stop their work a while and come back refreshed and concentrate on routine work and try to cool down.

1.10.3.5 Outcome anxiety ($\eta_5$)

Women are aware of the mental tension they experience. There is anxiety about the outcome of each activity. The thought of finding solutions to problems by themselves exhaust them. They believe that each individual's overt or expressed calmness is entirely different from that which is within.

1.10.3.6 Information and counselling ($\eta_6$)

Women try to get enough information about a problem before trying for solution. But there is absence of counselling services and training opportunities for improving decision-making abilities.
1.11 HYPOTHESES

The following hypotheses are formulated in consonance with the objectives of the study. They are cited below.

1.11.1 Stress of women entrepreneurs is not greater than stress of women in selected groups.

$H_{01}$ - Stress of women entrepreneurs is equal to stress of women in selected groups.

$H_{11}$ - Stress of women entrepreneurs is greater than stress of women in selected groups.

1.11.2 General orientation of women entrepreneurs is not greater than general orientation of women in selected groups

$H_{02}$ - General orientation of women entrepreneurs is equal to general orientation of women in selected groups

$H_{12}$ - General orientation of women entrepreneurs is greater than general orientation of women in selected groups

1.11.3 Attitude to sex roles of women entrepreneurs is not different from the attitude to sex roles of women in selected groups.

$H_{03}$ - Attitude to sex roles of women entrepreneurs is equal to attitude to sex roles of women in selected groups

$H_{13}$ - Attitude to sex roles of women entrepreneurs is not equal to attitude to sex roles of women in selected groups

1.11.4 Coping orientation of women entrepreneurs is not greater than coping orientation of women in selected groups.

$H_{04}$ - Coping orientation of women entrepreneurs is equal to coping orientation of women in selected groups

$H_{14}$ - Coping orientation of women entrepreneurs is greater than coping orientation of women in selected groups
1.12 Organization of the Thesis

The thesis is organized in five chapters. Chapter one introduces the topic with a detailed description of the scope of the study. It contains review of literature on stress and coping with stress. It also describes different definitions of stress. Various approaches to the study of stress are also detailed in this chapter. The approaches mentioned are the engineering approach, the physiological approach, and the psychological approach. The psychological approach identifies interactional, and transactional theories as two types of stress theories. Differing perspectives of several writers on stress and coping mechanisms are discussed. Ultimately a working definition of stress and coping is arrived at.

Chapter two focuses on stress of women and how they cope with stress. The groups referred to are women entrepreneurs, women bank employees, women teachers, and women non-entrepreneurs consisting of women doctors, women lawyers, women engineers and women social workers.

The social, economic, political, ecological, and psychological importance of the study are detailed. It explains the family related stress, and the contextual system.

This chapter elaborately describes perception with the help of the model of the self. A detailed description is given about empowerment of women.
Chapter three deals with gender ideology and counselling. It focuses on roles of education, religion, and culture in sustaining gender ideology. It also deals with a case study to understand the ideological hegemony that constructs gender relationships based on sex differences.

Chapter four deals with analyses and interpretation of the data and Chapter five concludes the study with generating suitable interventions to combat the ill effects of stress to promote eustress to ensure personal growth with satisfaction.

1.13 Limitations of the Study

Only three hundred and eighty one women have participated in the process of collecting quantitative data. Comparisons are made only with two groups of women non-entrepreneurs due to small size of the samples of other women non-entrepreneurs. The study is restricted to women entrepreneurs in the tiny sector. Women entrepreneurs registered in the District Industries Center (DIC) and in the Kerala State Women’s Industries Association (KSWIA) are only selected for the study.

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