Chapter 1

Introduction and Review of Literature

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This chapter introduces the research topic and presents the literature review on stress, perception of stress, coping, coping strategies, health, and the relationship among these concepts. The chapter begins with understanding stress and its origin in the Indian context, and its physiological aspects. Further, it explains the perception of stress, coping and its significance in difficult situations. Later, the chapter enumerates studies related to coping strategies, health, relationship among the above themes, and stress in women and spouses in the army context. The chapter then presents the theoretical and conceptual frameworks of the research, the research questions, the objectives, and the hypotheses.

Stress

Stress is a run-of-the-mill term of everyday life today. The term has lost the gravity it used to command in the 40s or 50s. The commonality of this term has resulted in many studies on the topic covering the effect and impact of it. This vast research base states that stress leads to physical and mental health troubles. Dalal and Misra (2011) present Indian perspectives on stress, quoting ancient *Vedic* texts highlighting the physical and mental health issues stemming out of stress. *Vedic* texts talk about mind-body unity, mention theories and share methods to deal with health-related issues. For example, the *Atharvaveda* and the *Yajurveda* refer to many mental conditions like *unmad* (insanity), *vibheeti* (fear from nature, water, death, etc.), *moha* (attachment, eroticism), *gandharva* and *apsara* syndrome (referring to sex disorders), *vishada* (distress associated with a particular group), and *grahi* (hysteria). The *Atharvaveda* has quoted in detail the symptoms of these disorders and their remedial measures. The relationship of certain societal conditions with mental, physical, and moral

deviations was brought to notice by Mondal (1996). His study talked about the ways to treat the bodily processes as much as the supernatural spirits (Mondal, 1996). Apart, from *Vedas* mentioning the remedy of these disorders, *Ayurveda*, which is the traditional medicinal system of India, emphasizes dealing with psychological problems for better treatment of physical health issues (Dalal & Misra, 2011).

It is interesting to note that the body-mind relationship, characteristic of modern stress studies, is emphasized in the *Ayurvedic* system of medicine. A number of concepts developed by ancient Indian scholars relate to or appear similar to current definitions of the phenomenon of stress. Some of these are *dukha* (pain, misery or suffering), *klesa* (afflictions), *kama* or *trisna* (desires), *ahman* and *ahmakara* (self and ego), *adhi* (mental aberrations) and *pranaparadha* (failure or lapse of consciousness). *Ayurvedic* therapy, aims at correcting the doshas or the imbalances and derangements of the bodily humors (namely *vata* or bodily air, *pitta* or bile, and *kapha* or phlegm) and restoring equilibrium (Dalal & Misra, 2006).

Bhagwad Gita, the ancient Indian scripture has been found to offer solutions to all the worries and problems of life. It talks about the stressors, ways to deal with them and how to reach nirvana. The conversation between Krishna and Arjuna is similar to a conversation with a therapist/healer/mentor – Krishna. Each of the eighteen chapters of Bhagwad Gita represent troubles of a life time and explains how to address them. Few learnings from Bhagwad Gita are - work without being attached to its consequences and one can remain stress free; do not get attach to the body and focus on the soul; actions performed and regulated without attachment, love or hatred and without desire for fruitful results is the mode of goodness; Bhagwad Gita proposes doing yoga as that can help one attain mastery of the mind; Bhagwad Gita also talks about the possibility of a state in which we can rise above cognition, emotions, and behaviour. (Bhawuk, 2011; Verma & Singh, 2014).

Fields (2001) reiterates the above-mentioned point, that healing involves restoration of balanced states of being within the organism, that is, at the level of the doshas or constituent principles of the mind/body complex; and between organism and environment. Equilibrium in *Ayurveda* means that our organs and systems are stable and functioning harmoniously. Further, our psyche and spirit, together with a balanced and creative relationship with other organisms and nature as a whole are also functioning harmoniously (Fields, 2001).

In modern Western psychology, the term 'stress' was coined by Hans Selye (1956). He was among the earliest ones in the growth of modern psychology who identified the bodily responses related to stress. He defined it as "the non-specific response of the body to noxious stimuli (Selye, 1956, p.12). He then modified it as, "Stress is any external event or internal drive which threatens to upset the organismic equilibrium" (Selye, 1956, p.12), which is similar to what *Ayurveda* states. Imbalance is created in an organism which Selye identifies as stress, and the action to regain homeostasis is coping.

Stress is explained through cognitive-transactional model by Lazarus and Folkman (1984) as, stress is experienced as a process that is initially triggered by situational demands, and then mainly by the cognitive appraisal of these demands. The characteristics of a situation (primary appraisal) are evaluated simultaneously in line with the available coping capacities or resources (secondary appraisal). This results in a cognitive appraisal of challenge, threat, or harm/loss, and, subsequently, in emotions, coping attempts, and adaptational outcomes. This process can be cyclical, and it may lead to a number of reappraisals that change the nature of the stress episode (Lazarus and Folkman, 1984).

Stokols explains the relationship between stress, coping and health. He was one of the first scholars to do it. He states that stress is, "a state of imbalance within an organism that is

elicited by an actual or perceived disparity between environmental demands and the organism's capacity to cope with these demands; and is manifested through variety of physiological, emotional and behavioural responses." (Stokols, 1979, p.36).

Several other scholars have attempted to understand the concept of stress and how it impacts the biological system of humans. One of them is Spielberger (1979) who defined stress as having two aspects. First, that potentially dangerous harmful/unpleasant external situations/conditions (stressors) produce stress reactions. Second, that the stressful stimuli elicit the internal thought, judgement, emotional state and physiological processes. The unpleasantness of the situation leads to thinking which results in judgement. This judgement then impacts our emotions and physiological process.

Put together, the definitions state that stress is produced when there are changes in internal and/or external conditions which threaten the equilibrium state of an individual. Manifestation of this imbalance can be noticed in physiological, emotional, and/or behavioural response of the organism.

The Figure 1 below highlights the context in which life events occur which can be categorized as internal factors – personal dispositions and external factors – social conditions in which the events are experienced. Biological assets and liabilities as well as learned coping abilities are included in personal dispositions. The model presented by Dohrenwend, et al. (1982) describes the cycle directly before and closely following the experience of the stressful event; if it were to be followed indefinitely, there would be feedback loops demonstrating how the results could become an antecedent. The feedback loops or the interpretation of the stressor which the individual generates is explained in detail in the next section.

Dohrenwend, Pearlin, Clayton, and Hamburg, (1982) have given a diagrammatic representation showing the stress process and also depicts the antecedents of a stressful life Figure 1.
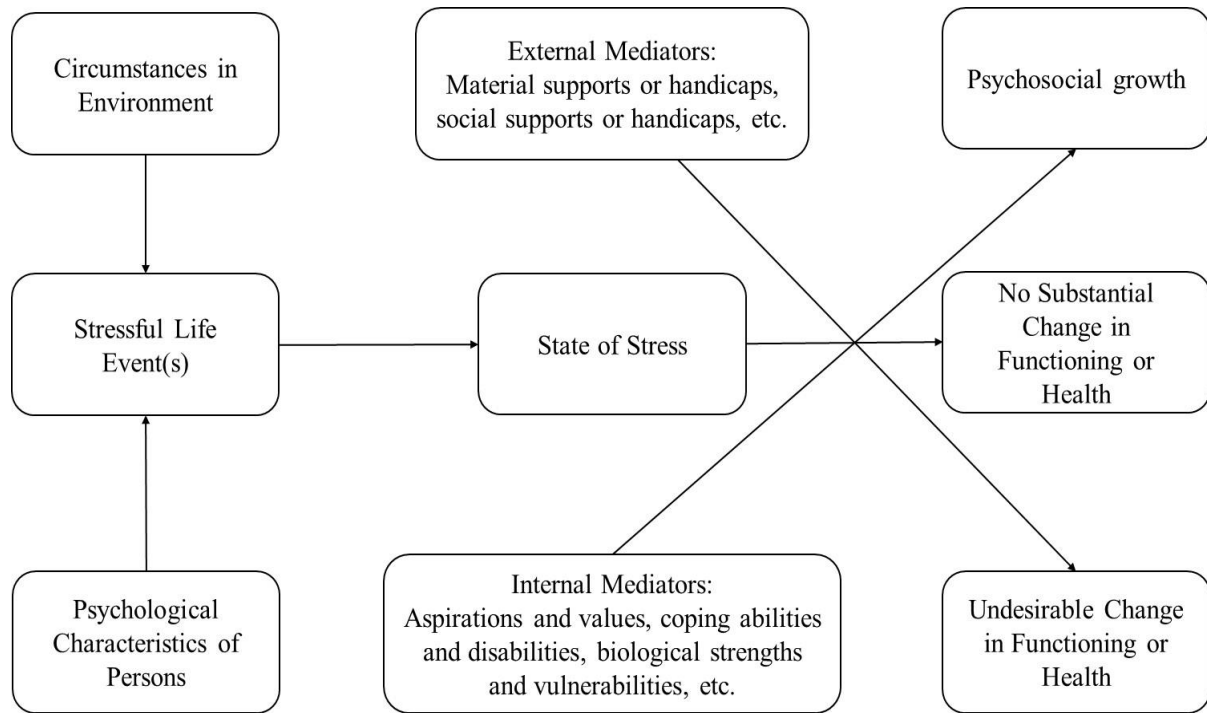

Figure 1. General paradigm of the stress process extended to include antecedents of stressful life events.
[Adapted from: Dohrenwend, et al. (1982). Stress and human health. NY: *Springer*. In: Dinges, N. G., & Joos, S. K. (1988). Stress, coping, and health: models of interaction for Indian and native populations. American Indian and Alaska Native Mental Health Research (Monographic Series), 1(1), 8–55 discussion 56–64. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/3155148]

Perception of Stress.

Stress is produced when unexpected or sudden event/stimuli come forth and the homeostasis is disrupted. However, it is the way we perceive the stimuli that makes it stressful or not stressful. Perception of stress is the person's assessment of one's life as stressful. "Perceived stress is a dynamic multidimensional concept, with a wide spectrum of causative and conducive factors. The perceptions comprise medical, physical, psychological,

and psychosocial aspects and are both culturally and socially context dependent" (Moore & Cooper, 1996).

The basis of Lazarus's (1966) cognitive appraisal theory is the importance given to the appraisal of the stressor. According to Lazarus, stress consists of three processes, primary appraisal, which is the process of perceiving a threat to oneself; secondary appraisal, which is the process of bringing to mind a potential response to the threat; and coping which is the process of executing that response (Lazarus & Folkman, 1984). Lazarus & Folkman (1984) developed a model to explain this concept which is presented in Figure 2.
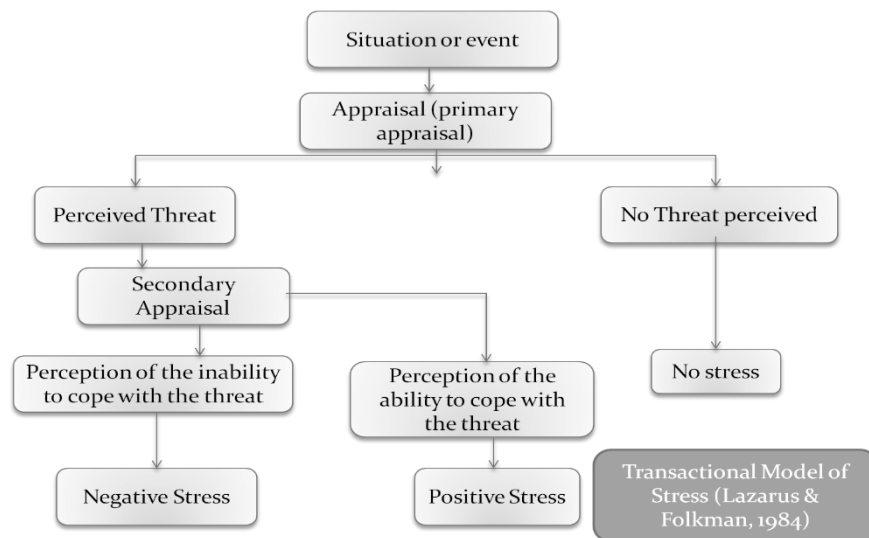

Figure 2. Transaction Model of Stress.
[Adapted from: Lazarus, R. S., & Folkman, S. (1984) Stress, appraisal and coping. *Springer*: New York].

Many scholars since then have studied the process of interpretation of situation/events/stimuli and its perception, and have found it not to be proportionate. A study with nurses working in intensive care unit of selected hospitals in Odisha, India found that their level of stress was lower than their perception of it and that the stress was related to the direct patient care, inadequate knowledge and skill, lack of support, interpersonal conflict and management of the unit (Das, 2018).A number of studies in India in the area of perceived stress have focussed on adolescents and the stressors they go through whereas very few studies have addressed the adult population (Prabhu, & Shekhar, 2017; Augustine, Vazir,

Rao, Rao, Laxmaiah, & Nair, 2011; Latha & Reddy, 2006). A study with higher secondary school students in Hyderabad attempted to find the relationship between perceived stress, life events and coping among private schools and government schools. The results indicated that government school students used avoidance coping skill more often, but both the groups perceived stress in a similar manner (Augustine, Vazir, Rao, Rao, Laxmaiah, & Nair, 2011).

Everson (2005) conducted a study to ascertain the cumulative effect of stressors, coping ability, and definition of stressor events on quality of life among military spouses or significant others during military deployments. The study compared the deployed, not deployed, and recently deployed army spouses at the time of operation Iraqi Freedom. It was found that there were differences based on the deployment among army spouses. Those spouses whose partners were deployed perceived higher stress regardless of the length of the deployment and same was true for their children which impacted their quality of life proportionately (Everson, 2005). However, a study by Erickson (2012) shifts our attention to spouses who perceive stress to be more, they tend to address it by taking some action to handle it.

To summarize, perception of stress is a process which leads to an individual categorizing the stressor as stressful or not stressful which has an impact on their overall life. The next section explores how to manage stressful experiences based on previous research.

Coping

Coping is the execution of the response to a threat. Coping refers to active efforts to master, reduce, or tolerate the demands created by stress (Weiten & Lloyd, 2005). How well a person responds to stress is dependent on how much the person feels threatened by the situation at hand. Once coping begins the situation changes, either in terms of its objective

characteristics (if the person actually does something to help deal with the situation) or in terms of how the individual subjectively views the situation (Mehta, 2012).

In the nineties, coping was viewed as a process rather than a personality characteristic (Lazarus, 1993). Lazarus gave several principles of coping as a process. These are:

1) Coping with stressful thoughts and actions must be assessed separately from their effects to independently evaluate their adaptability or mal-adaptability. Coping is dependent on the individual, the specific stressor, and the outcome measure being studied; it cannot be viewed as good or bad in itself.

2) In studying coping, the specific threat or stressor must be identified.

3) Coping should be studied using a measurement that identifies the thoughts and actions used by the individual in response to a particular stressor.

4) Coping is defined as "ongoing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person," (Lazarus, 1993, pp. 235-238) and

5) The theory of coping as a process emphasizes that there are at least two major functions of coping, problem-focused and emotion-focused (Lazarus, 1993, pp. 235-238).

New research has thrown light on multiple functions of coping, including but not limited to, the regulation of distress and the management of problems causing the distress. Coping is influenced by the appraised characteristics of the stressful context, including its controllability; by personality dispositions including optimism, neuroticism, and extraversion, and by social resources (Folkman & Moskowitz, 2000). Eatough (2010) examined whether

coping impacts the moderating effect of control on stressor-strain relations. He found that generally, a match between high problem-focused coping and high control was beneficial, whereas a combination of high emotional expression coping (letting out feelings) and low control or low emotional expression coping and high control was most adaptive.

In the same era, in India, Pestonjee & Singh (1983) developed a model to explain how we cope with stress reactions, called the "bounce model" represented in Figure 3. It states that the behavioural decompensation taking place due to stress tends to get reflected in interpersonal and other reactions. The reactions are received and analysed by the environment which in turn, bounces back the signals to the individual to bring about a change either at the organism level or at the response level.
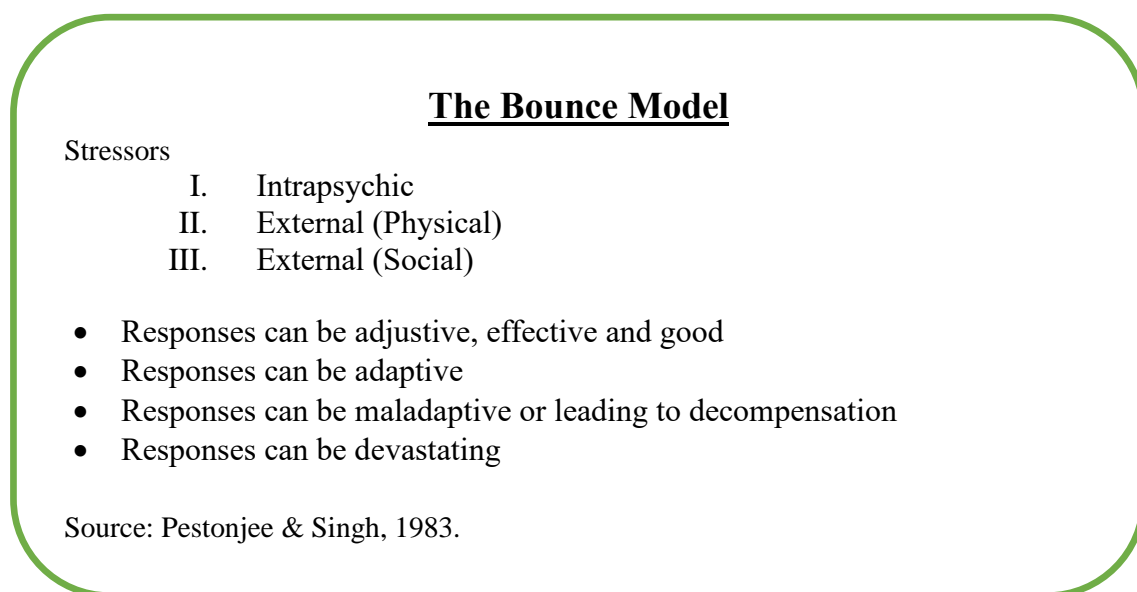
The Bounce Model

Stressors
  I.   Intrapsychic
  II.   External (Physical)
  III. External (Social)

- Responses can be adjustive, effective and good
- Responses can be adaptive
- Responses can be maladaptive or leading to decompensation
- Responses can be devastating

Source: Pestonjee & Singh, 1983.

Figure 3. The Bounce Model.
[Adapted from: Pestonjee, D.M. & Singh, U.B. (1983) *EDP managers: An organizational behaviour study*. Manuscript, Indian Institute of Management, Ahmedabad]

Another aspect of coping that was substantially researched by Carver and his colleagues (1989) was acceptance, which adds to the primary and secondary appraisals of Lazarus and Folkman. He points out that, "acceptance impinges on two aspects of the coping

process. Acceptance of a stressor as real, occurs in primary appraisal. Acceptance of current absence of active coping strategies relates to secondary appraisal" diagrammatically explained in Figure 4. One might expect acceptance to be particularly important in circumstances in which the stressor is something that must be accommodated to, as opposed to circumstances in which the stressor can easily be changed (Carver et.al., 1989, p.270). Thus, acceptance is of prime importance when an individual is not able to control or modify the situation but has to adapt to the situation.
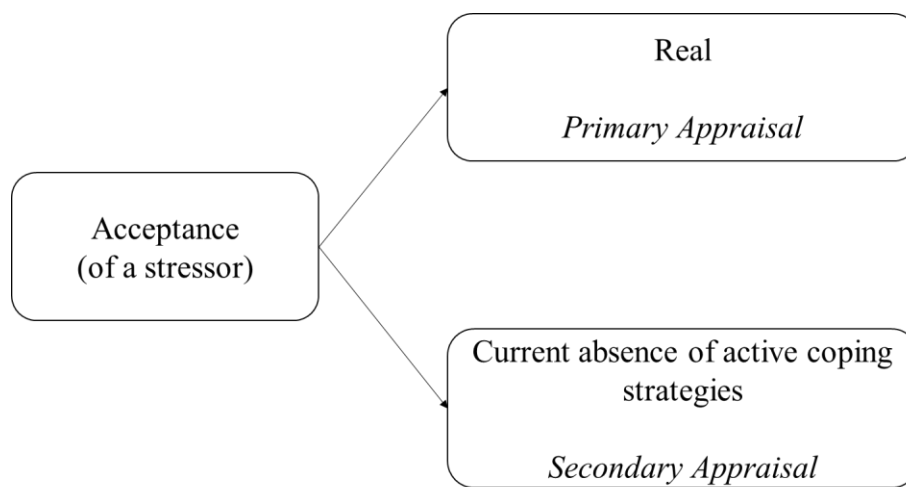

Figure 4. Acceptance according to Carver et al. (1989)

Individuals use different strategies to move past the stressful stimuli with minimal negative impact. Appraisal of the situation and the response we choose decides how we cope with it. The next section focuses on coping strategies and explains their application and impact.

Coping Strategies.

Coping is demonstrated by the utilization of one or more coping strategies. Coping

strategies are the mechanisms which individuals use to deal with or resolve situations which disturb their homeostasis. Lazarus & Folkman (1984) categorized coping strategies into two major categories, problem-focused and emotion-focused; and further divided them into eight strategies that individuals use to return to their homeostasis. These eight strategies are confrontative coping, distancing, self-control, seeking social support, accepting responsibility, escape-avoidance, painful problem solving and positive re-appraisal. However, in certain walks of life, coping becomes challenging. One such domain is the military context. Working in defence services is not easy for the individual, the spouse, or their family. McCubbin, Dahl, Lester, Benson, & Robertson (1976) found that coping strategies among spouses whose husbands were unaccounted for during the Vietnam conflict ranged from expressing personal feelings (particularly angry feelings) and seeking social support from others, to hopeful coping, religious coping, and behavioral and self-distraction. In an Australian study, with wives who were living alone as the husbands were working on the borders or in war prone areas, it was found that the most frequent coping strategies used were acceptance, planning, active coping, religion, self-distraction, emotional support, and positive reframing (Dimiceli, Steinhardt, & Smith, 2010).

Categorization of coping strategies to understand the effectiveness or frequent usage was studied and established by Lazarus & Folkman (1984) andwas further researched by Schneiderman, Ironson, and Siegel (2008) to see their impact on biological and mental health. They found that if there is more often or consistent use of emotion-focused coping it leads to physical and mental health issues. Their study revealed that coping skills and psychosocial resources having biological vulnerability leading to physical and psychological diseases which can be addressed and healed through psychosocial treatments.

American Psychological Association (APA) describes effective coping strategies

as, *"...coping strategy which works and helps individual remain physically and psychologically healthy"* (VandenBos, 2007).

The concept of emotion focused coping and problem focused coping was explained by Lazarus & Folkman (1984) bringing out the nuances of how we approach a problem. "Emotion focused coping is a stress-management strategy in which a person focuses on regulating his or her negative emotional reactions to a stressor. Rather than taking actions to change the stressor itself, the individual tries to control feelings using a variety of cognitive and behavioural tools, including meditation and other relaxation techniques, prayer, positive reframing, wishful thinking and other avoidance techniques, self-blame, seeking social support (or conversely engaging in social withdrawal), and talking with others (including mental health care professionals). It has been proposed that emotion-focused coping is used primarily when a person appraises a stressor as beyond his or her capacity to change" (Lazarus & Folkman, 1984).

"Problem focused coping is a stress-management strategy in which a person directly confronts a stressor in an attempt to decrease or eliminate it. This may involve generating possible solutions to a problem, confronting others who are responsible for or otherwise associated with the stressor, and other forms of instrumental action. For example, a student who is anxious about an upcoming examination might cope by studying more, attending every class, and attending special review sessions to ensure he or she fully understands the course material. It has been proposed that problem-focused coping is used primarily when a person appraises a stressor as within his or her capacity to change" (Lazarus & Folkman, 1984).

Compilation of classification of various coping strategies into emotion-focused and problem-focused is done based on various researchers, shown in tabular format in Table 1

(Tobin, 1995; Tobin, 2001; VandenBos, 2007; Carver, et.al., 1989; Nakano, 1991; Carver, 2007).

Table 1

Types of Emotion-Focused and Problem-Focused Coping Strategies

Emotion-Focused Coping Strategies	Problem-Focused Coping Strategies
Denial of the situation	Problem solving
Avoiding the problem	Seeking societal support
Wishful thinking	Self-control
Self –criticism	Expressing emotions
Social withdrawal	Acceptance
Substance use	Praying
Suppression of competing activities	Cognitive restructuring
Behavioural disconnection	
Humour	

Note: This is compilation done by researcher based on previous researches.

Coping strategies used at the right time in the right situation can help one lead a healthy lifestyle. However, this may not be possible every time and this has an impact on our health. The next section enumerates in detail the relationship between stress and health.

Health

The health issues prevalent today, are more often related to the amount of stress one is facing and how the stress is managed. Coping strategies that are utilized to deal with stressors in life can be either emotion focused or problem focused (Lazarus & Folkman, 1984), which if not adequate will result in impacting health (Schneiderman, et al., 2008). This significant relation between coping strategies and health has been further discussed in this section. It is widely accepted that health can be divided into two broad categories, physical and mental health. This view of health is more inclusive, non-body centered, and it goes well with the notion of human existence in terms of five sheaths(*koshas*)as described in *Taittiriya*

Upanishad (Satpathy, 2018).Health is defined as a person's subjective expression of the composite evaluation of somatic sense of self (how one is feeling) and functional ability (how one is doing). The resulting judgment is manifested in the subjective experience of some degree of illness or wellness.

World Health Organization (1948) has defined health as, "health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."Critics argue that the WHO definition of health is utopian, inflexible, and unrealistic, and that including the word "complete" in the definition makes it highly unlikely that anyone would be healthy for a reasonable period of time. It also appears that "a state of complete physical, mental and social well-being" corresponds more to happiness than to health (WHO, 2003).

The direct link of stress and health has been studied extensively. Physiological conditions which are a manifestation of stress are ulcer, hypertension and also depression (*Fauci, Braunwald, Kasper, Hauser, Longo, Jameson, & Loscalzo,* 2008). Chronic work-related stress leads to lower adaptation of the immune system (Segerstrom, & Miller, 2004), increased risk of heart disease and Type 2 diabetes (Chandola, Brunner, & Marmot, 2006), and muscoskeletal issues (Bongers, de Winter, Kompier, & Hildebrandt, 1993; Carayon, Smith, & Haims, 1999).

Studies related to acute or long-term stress lead to physiological or psychological impact on health, are shared in the next section. It is relevant to note that, most of the literature review is based on work related stress and not much is explored for those women who are not working. However, stress can be managed and the negative impact can be reduced, prevented or delayed by using healthy coping methods. The next section elaborates on the same.

Stress, Coping and Health

Much research on stress, coping, and health focusses on the individual's employment status. An individual who has been working or has been in the grind of earning a livelihood has been found to require good social support to aid earning. Asnani, Pandey, and Sawhney, (2004) observe that itis difficult for working women to manage and balance their responsibilities. The fact that social support is fading away owing to nuclear families and at work due to automation contributes to this problem. Most women struggle through by working and fighting alone with these stressors which have been found to lead to emotional stress, thereby increasing psychosomatic complaints. Another study by Rao, Apte, and Subbakrishna (2003) resonates with the results of Asnani et al.'s (2004) observations that working women experience tremendous amount of strain with the multiple roles they play on a daily basis. The coping strategies they adopted were taken as indicators of their well-being in the study and it was found that emotion focussed coping together with good support network was significant for better well-being. However, women who were not working tend to demonstrate learned helplessness more than the working women, and working women were found to be use significantly higher cognitive, physical and social coping than their non-working counterparts (Li, Mardhekar, & Wadkar, 2012).

However, there is a dearth of research on stress and health of defence personnel and their families in India. Only one study examining the relationship between coping strategies and health related outcome in the Indian army context has been carried out by (Prakash, Bavdekar, & Joshi, 2011). The results of this study indicated that multiple coping strategies were adapted by spouses and they also used preventive and remedial measures to deal with the deployment and separation. An effort by Rice (2012) to present the relationship between stress, coping and health focused on nursing and includes a chapter by Lyon (2012) who

presented a table enumerating conceptualization of stress, coping, and health through the years highlighting different schools of thought. This summary is shared in Table 2 and helps in understanding the differences and evolution of this concept through the years. The researcher has added the Indian school of thoughts of *Ayurveda* and *Vedas* to broaden the range of concepts.

Most Western nations like the USA, Great Britain, Australia, New Zealand, and Canada, have focused on the health of defence personnel, their spouses, and explored ways to help them lead a better life. Dimiceli and colleagues (2010) conducted a survey with military spouses in Texas, USA to identify their most stressful experiences in the last five years, their self-appraised control over these stressors, and the coping strategies used to deal with these experiences. They found that the length or number of deployments experienced was a source of stress for civilian spouses of the deployed. Padden, Connors, and Agazio (2011) examined the relationships between stress, coping, general wellbeing, and socio-demographic characteristics using Lazarus and Folkman's theory of stress and coping based on the perspective of nurses who work closely with families of defence personnel. The study indicated that level of perceived stress predicts level of psychological and physical health in spouses of the deployed. Differences were found among rank groups, those who grew up in a military family, and those with a previous deployment separation in their use of coping strategies.

A review of more than 250,000 medical records of spouses of active duty army soldiers showed a significant increase in mental health diagnoses in spouses whose husbands were deployed when compared to those whose husbands were not deployed. Those experiencing prolonged deployment (greater than 11 months) had an even higher number of diagnoses (Mansfield, Kaufman, Marshall, Gaynes, Morrissey, & Engel, 2010).

Table 2

Stress, Coping, and Health Outcomes as Defined in Stress Theories

Scientific view	Conceptualization of stress	Conceptualization of coping	Health outcomes
Response based (Selye, 1956, 1983)	Stress is the nonspecific response to any noxious stimulus. The physiological response is always the same regardless of stimulus – the general adaptation syndrome (GAS).	There is no conceptualization of coping per se. Instead, Selye used the concept of "resistance stage," the purpose of which is to resist damage (this concept is part of the GAS).	On the basis of the assumption that each person is born with a finite amount of energy and that each stress encounter depletes energy stores that cannot be rejuvenated, it was proposed that stress causes "wear and tear on the body" that can result in various diseases based on the person's genetic propensity.
Stimulus based (Holmes & Rahe, 1967)	The term stress is synonymous with "life event." Life events are "stress" that require adaptation efforts.	Coping is not defined.	A summative accumulation of adaptation efforts over a threshold level makes a person vulnerable to developing a physical or mental illness (operationalized as disease) within 1 year.
Transaction based (Lazarus, 1966; Lazarus & Folkman, 1984)	The term stress is a "rubric" for a complex series of subjective phenomena, including cognitive appraisals (threat, harm, and challenge), stress emotions, coping responses, and	Coping is conceptualized as efforts to ameliorate the perceived threat or to manage stress emotions (emotion-focused coping and problem-focused coping).	Adaptational health outcomes are conceptualized as short term and long term. Short-term outcomes include social functioning in a specific encounter, morale in the positive and negative affect during and after an encounter, and somatic

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	reappraisals. Stress is experienced when the demands of a situation tax or exceed a person's resources and some type of harm or loss is anticipated.		health in symptoms generated by the stressful encounter. Long-term outcomes include social functioning, morale, and somatic health. Both short-term and long-term health outcomes encompass effective, affective, and physiological components.
Body-mind relationship. Ayurveda (approximately 800 BCE) & Vedas (approximately 6000 YBP)	Stress is the *dosha*, the imbalances and derangements of the bodily humors	Coping is through corrective measures as per Ayurvedic therapy to restore equilibrium.	Every individual tries to achieve the homeostasis of the mind-body relationship. The impact is seen in physical as well as mental health of the individual. When it hampers, we go through, *klesh, dukha, ahman, ahmakara, adhi, vibheeti, unmad,* etc.

Note. Adapted from: Lyon, B. L. (2012). [Stress, coping, and health: A conceptual overview (update). In V. H. Rice (Ed.), Handbook of stress, coping, and health: Implications for nursing research, theory, and practice (p. 2–20). Sage Publications, Inc.]

The above-mentioned studies reveal that there is a significant relationship between stress and health in the army context. Further, utilization of adaptive coping strategies can help in preventing and managing the stressful situations better, in turn having a positive impact on health. A more focussed understanding of how stress impacts women is described in the next section.

Stress and Women

In India, research on stress among women essentially focuses on the stress experienced by women at the workplace or stress during or due to an illness. There are studies in specific areas of nursing, IT industry, pregnant women, abused women to name a few (Lyon, 2012; Vimala & Madhavi, 2009; Nath, Venkatesh, Balan, Metgud, Krishna, & Murthy, 2019; Naidu, 2011). In 2011, The Economic Times reported a survey done by Nielsen which revealed that Indian women are most stressed in the world today. An overwhelming 87 percent of Indian women said that they felt stressed most of the time, and 82 percent reported that they had no time to relax. The reported reasons were the pressure and responsibilities at the workplace as well as on the home front. Kaila (2007) has explained the nature of workplace stress that women managers in Mumbai experience. It enumerated the number of stressors for a woman manager as time crisis, relocation trauma, competition, job insecurity/uncertainty, clash with superior, uncooperative subordinates, loss of communication, and shift work problems.

The traditional role of women in Indian society is gradually changing, with more urban middle-class women entering formal workforce. However, the responsibilities of household and child care remain the responsibility of women. The situation thus results in what is termed the 'triple burden' on women. The multiple roles of work, household and child

rearing, and social responsibilities often lead to increased stress (Scott, 2010) resulting in health issues (Astbury & Cabral 2000).

The relationship between stress and health is evinced in several studies across various sectors. One study addressed the stresses faced in the IT industry in Chennai, India and the results confirmed that women in IT companies felt moderate amount of stress which leads them to suffer depression (Vimala & Madhavi, 2009). Another case study done in Agni College of Technology in Chennai, aimed to find out the psychological and physical stress undergone by married working women. It revealed that stress in married working women is caused due to long working hours, various family and official commitments, harassment and improper work life balance. Such type of stress leads to various problems like prolonged headaches, hypertension and obesity (Bhuveneshwari, 2013).

Along similar lines, Malhotra and Shah (2015) found that women predominate men with respect to mental health issues. There was a gender difference in social adjustment, age of onset of symptoms, frequency of psychotic symptoms, clinical features, course, and long-term outcome of severe mental disorders through the study. Girls from nuclear families and women married at a very young age were found to be at a higher risk for attempted suicide and self-harm. Women who abused alcohol or drugs were more likely to attribute their drinking to a traumatic event or a stressor and were more likely to have been sexually or physically abused than other women (Malhotra & Shah, 2015).

An international study conducted by the American Psychological Association on understanding the differences between genders indicated that the impact of stress is more on men, whereas women are more likely to verbalize that they are stressed and also take active steps to manage it. They make changes in their life like reading, visiting a spa, praying, shopping, or going to a mental health professional (APA report, 2012). Another study probed

deeper into understanding the gender differences with relation to stress and found out that there is lower degree of cortisol in relation to stress among women compared to men (Wang, Korczykowski, Rao, Fan, Pluta, Gur, McEwen, & Detre, 2007). Cortisol, the stress hormone, has been found to effect perceptual learning (Dinse, Kattenstroth, Lenz, Tegenthoff, & Wolf, 2017) and cause gastric problems (Yaribeygi, Panahi, Sahraei, Johnston, & Sahebkar, 2017).

Mayor (2015) researched the disparities in gender roles and tension, and their impact on health. It has been shown that traditional socialization is advantageous for men not only in terms of power (including economic resources), but also in terms of health (including exposure and reactions to stressors) (Emslie, Hunt, & Macintyre, 1999; Matud, 2004; Sarrasin, Mayor, & Faniko,2014). Earlier women were found to be handling multiple social roles and experiencing stress due to it and they continue to do so. A research study examining the relationship of experiencing stress due to multiple roles by Sumra and Schillaci (2015) found that there is no difference in the perception of stress between women who take up multiple roles and those who do not, although it is important to note that there was a positive relation between life satisfaction and role engagement.

To summarize, this section highlights the gender differences with focus on women and explains the nature of stressors women experience and how it impacts their health. The next section focuses on women and stress in the army context.

Stress and Women: The Army Context

There are total 1,237,117 personnel active in Indian Army (Rana, 2017). Out of 1,237,117 active duty personnel army accounts for 3.89 percent women in its ranks (Ministry of Defence, 2019), which comes to roughly 48,123. The structure of Indian army is

completely hierarchical and based on the patriarchal society norms Indian society adheres to. The supreme court has recently passed the judgement that Indian army will allow women to be on permanent commission which was due since many years. Getting into combat roles are still a far-off scenario. However, women have been contributing to the Indian army since it started. Spouses of army officers are the ones who go through the turmoil of letting husband go for posting and take charge of house on her own. This again is a factor for creating stress in women. Singh (2013) has tried to extract military lessons from Ramayana and Mahabharat and how the military has transformed from the Vedic era to now and what has remained intact. What has remained intact is the patriarchal systems and the inability to give women equal stance in the military (Singh, 2013).

A pioneering study by Prakash (2008) to know the psychiatric morbidity in temporarily separated wives of serving soldiers revealed that certain factors contribute for separated wives to be psycho-protective. These factors were shorter period of separation, more number of years in military, longer duration of visit of husband, older children in family, better perception and coping of the stress and absence of physical and mental illness in family. Prakash (2008) then went on to do a meta-analysis to understand what kind of stress the wives of serving soldiers go through and how do they cope with it. He identified four types of stressors: *Ashanka* (Pre-separation), *Viraha* (Separation), *Punarmilan* (Reunion), and *Goonj* (Echoes: long-term post-war stressors).Seeking resolution and expression of feelings, maintenance of family integrity, establishment of independence and maintenance of family ties, establishment of independence through self-development, maintaining the past and dependence upon religion were the effective coping patterns used (Prakash, Bavdekar,& Joshi, 2011).

Another researcher explored the difference in the spouses' whose husbands were

deployed with those whose husbands were with them. Findings from the comparative study between deployed and non-deployed soldiers done by Bisht and Pande (2017) indicate that officers' spouses who were not deployed had better psychological well-being compared to those officers' spouses whose husbands were deployed.

Indian society has been hierarchical which can be observed in the various caste, class and gender so created. The traditional position of women has been of a homemaker. The one who takes care of the household needs and wants and fulfils the desires of others. Her needs are not the focus of the Indian society as position of women in Indian society is very low. Studies out of India have been exploring and taking care of the health of army spouses since years and the research studies available show the drastic impact stress has on the use of coping strategies and also the impact on their health.

Knapp and Newman (1993) studied army wives who were facing extended period of separation due to deployment of their husbands. It was found that to predict mental health of army wives, the collective stressors and the perception of the stress in the defence were helpful. Along similar lines, Wheeler (2009) found characteristics of deployment as important predictors of mental health. His research on Nebraska Army National Guard spouses also found that community support and marital satisfaction may play key roles in these mental health outcomes. A recent study by Bailey (2019) indicates that emotion coping is a strong indicator of stress, depression, anxiety among the spouses of deployed soldiers.

Runge, Waller, MacKenzie, & McGuire (2014) used survey method to gather qualitative responses from spouses of defence personnel on their health and well-being. They found out that deployment is one of the biggest stressors and the coping strategy used was to deploy a routine and access the support which was available. The study also found that

defence spouses tend to improve in using coping strategies as their military life experience grows (Runge et al., 2014)

The unprecedented demands on life as a spouse of defence personnel brings are tough to manoeuvre and it leaves an impact on health.

Highlights of Literature Review

- Stress is any disturbance in the homeostasis state of an individual. Threat to the homeostasis leads to interpreting the stimuli in question. The way it is perceived by an individual, results in the level of stress experienced. Hence, perception plays an important role.

- The Indian scripture – the *Vedas* have talked about stress way before modern psychology coined the concept of stress and coping. *Ayurveda* the ancient Indian medicine talks about healing the psychological issues to heal the body physically. These concepts are shared in detail.

- Lazarus's (1986) contribution in the field of stress and coping is noteworthy. His transactional model of stress theory helps to understand the interplay of emotions and our interpretation of stimulus. He has classified the coping strategies in terms of emotion focused and problem focused coping.

- Stress and health are inter-related and multiple studies reiterate that one needs to manage stress in life in a constructive manner so as to not affect the physical and mental health of a person. Use of coping strategies helps prevent and manage stress and stressors in our life and if not managed efficiently it can have an impact on health.

Various studies are quoted in the literature establishing and empirically sharing the physiological and psychological impact on health.

- The concept of health has transformed to a definition which includes psychological, emotional health of an individual as well. The relation of stress with coping and health is than explained to get clarity on to the way we perceive the stress impacts the way we address it.

- Women in the Indian scenario ought to be viewed from the perspective of how Indian society is shaped and what the social system is. Literature incorporates the conceptualization of Vedas and other Hindu scriptures. Being responsible for taking care of the needs of the family and taking up jobs contributes to difficulty and pressure in taking up obligations both at work and at home. This stress impacts their physical health.

- A woman in the army context is a person who is a brave heart but her stars are not visible to everyone. It is commendable for the power and bravery displayed by a woman to take care of the home, babies, and community.
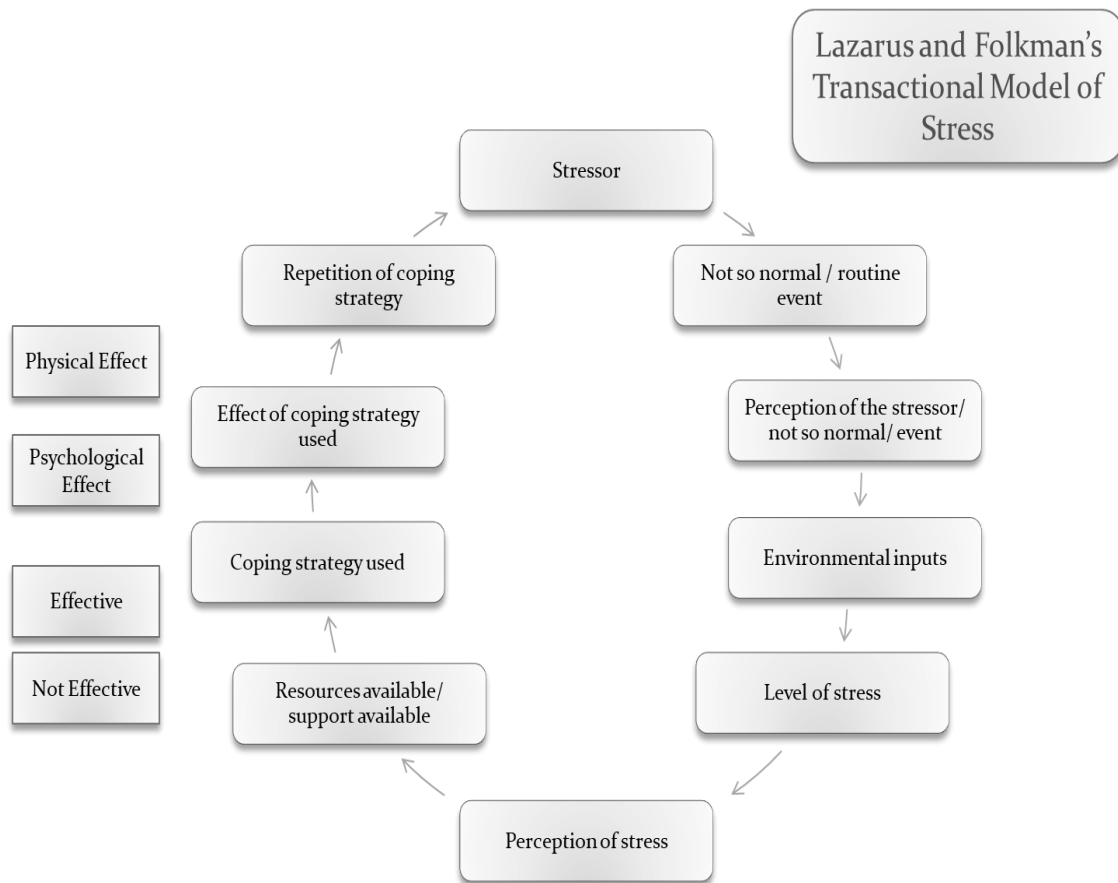
Theoretical Framework

Figure 5. Theoretical framework of the research

The theoretical framework in Figure 5 is used in the present study is adapted from

Lazarus and Folkman's (1984) Transactional Model of Stress.

According to this framework, when a person is faced with a stressor, she or he

evaluates the potential threat (primary appraisal). Primary appraisal is a person's judgment

about the significance of an event as stressful, positive, controllable, challenging or

irrelevant. Facing a stressor, the second appraisal follows, which is an assessment of people's

coping resources and options (Cohen, 1984). Secondary appraisals address what one can do

about the situation. Actual coping efforts aimed at regulation of the problem give rise to

outcomes of the coping process.

<center>**Rationale**</center>

Women, have proven exemplary success in performing a variety of distinct roles such as an athlete, entrepreneur, academician, soldier, scientist, homemaker, leader, daughter, mother, wife and are achieving success like never before. However, the deeply rooted patriarchal mindset of Indian society still expects women to fulfil traditional roles related to child care and household duties. This ensues in triple burden on women, resulting in higher levels of stress compared to men. The Economic Times newspaper in 2011 reported a survey done by Nielsen revealing that Indian women, are most stressed in the world today. An overwhelming 87 percent of Indian women said that they felt stressed most of the time, and 82 percent reported that they had no time to relax. The reasons have been the pressure and responsibilities at the workplace as well as on the home front. The National Health Portal of India website (https://www.nhp.gov.in/healthlyliving/women-s-health) has deduced malnutrition, lack of maternal health, suicide and domestic violence as the common issues faced by women apart from workplace discrimination and harassment in India. Studies to find out what kind of psychological and social support would work for these women so that they can be mentally and physically healthy leads to developing a model specific to this population to help them alleviate stress.

Although, women experience stress in all circumstances and situations, the army context is unique in this respect. The army context, induces greater stress, especially in situations of deployment. Two major areas where women contribute in the Indian Army are by being an officer herself and as a spouse of an armed personnel. The focus of the current research, is on one sector of the country, defence services. Women display the same valour as

their spouses during war by taking care of the family and keeping the whole unit intact and functioning in uncertain times.

However, in India, this significant contribution made by woman in a soldier's life goes largely unnoticed. Women remain at the home front taking care of domesticity, responsibilities, social responsibilities and the upbringing of children, all alone. These army spouses are also required to protect their husband from such daily life stressors, lest it affects them negatively, also termed as protective buffering. However, studies to understand stress experiences of women in the defence services are scarce, especially in the Indian context and there is enormous need to explore this research area.

The present research is an effort to find out the stress and coping experiences of women (army spouses) whose husbands are deployed in the Indian army, and its impact on their health. The results of this study will help prepare new entrants in Indian army by sharing and teaching them effective coping strategies and preparing them to live a healthy life. It will also help the ones who are already part of the Indian army and are finding it difficult to adjust and cope with the stressors very unique to military life in India.

Conceptual Framework

The objective of the study is to identify the relationship among stress, coping and health (physical and psychological) in spouses of army personnel with reference to the number of deployments faced and type of commissioning. The diagrammatical representation of the conceptual framework is shared in Figure 6.
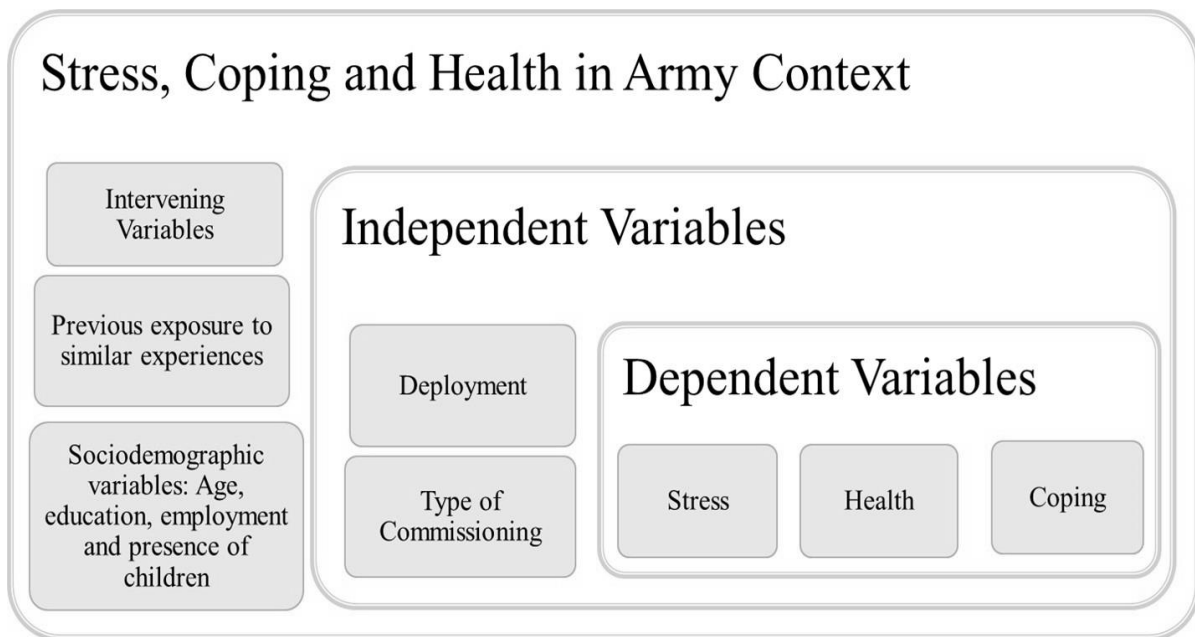
Figure 6. Conceptual framework of the research

Research Questions

- What is the difference in stress among army spouses based on type of commissioning?

- What is the difference in use of coping strategies among army spouses based on type of commissioning?

- What is the difference in perceived health among army spouses based on type of commissioning?

- What is the difference in stress among army spouses based on number of deployments faced?

- What is the difference in use of coping strategies among army spouses based on number of deployments faced?

- What is the difference in perceived health among army spouses based on number of deployments faced?

Objectives

- To find out the difference between stressors faced by army spouses based on type of commissioning.

- To find out the difference between coping strategies used by army spouses based on type of commissioning.

- To find out the difference between the self-reported physical and psychological health of army spouses based on type of commissioning.

- To find out the difference between stressors faced by army spouses based on number of deployments faced.

- To find out the difference between coping strategies used by army spouses based on number of deployments faced.

- To find out the difference between the physical and psychological health of army spouses based on number of deployments faced.

Hypotheses

- Stress in army spouses differs based on type of commissioning.

- Coping strategies used by army spouses differs based on type of commissioning.

- Perceived health of army spouses differs with the type of commissioning.

- Stress in army spouses differs based on number of deployments faced.

- Coping strategies used by army spouses differs based on number of deployments faced.

- Perceived health of army spouses differs with number of deployments faced.