CHAPTER 2

Literature Review

This chapter describes the literature review and conceptual framework of the study. The literature review covered the enlisted topics:

1. Job stress
   1.1 Definition of job stress
   1.2 Model of job stress
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2. Presenteeism
   2.1 Definition of presenteeism
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3. Relationship between job stress and presenteeism
4. Situation of health care delivery system in Pakistan
5. Conceptual framework

Job Stress

Definition of Job Stress

In regard to the concept of job stress, relevant literature has given various descriptive definitions. For example, according to Beehr and Newman (1978), job stress is a state wherein job-related aspects intermingle with the employee for transformation - thereby either disturbing or improving, his or her mental and/or biological conditions in ways that may result in deviation from normal functioning - due to pressures caused on the individual's mind and/or body.

The concept of job stress in this study is based on Lazarus and Folkman's theory of psychological stress and coping (1984) which states that the individual and their atmosphere are perceived as parallel in a vibrant association. Stress is the psychological and emotional state that is internally represented as part of a stressful transaction.

According to Crandell and Perrewé (1995), job stress is the established painful feeling that is experienced by someone at the time when that individual is forced to stray from their regular or anticipated arrangements and functioning.

Job stress is an interchangeable concept and there are many other phrases with the same meaning. It is also called as occupational stress; work stress; and stress in organizations (Thong & Yap, 2000).

According to AbuAlRub (2004), job stress results from the imbalance between the situation's strains and the individual's managing capabilities. It mainly develops in work situations which employees perceive to be threatening.

Damit (2007) viewed job stress as the detrimental bodily and sensitive reactions that arise when the conditions of job do not equal the abilities, capital, or requirements of a worker.

Another respected definition of job stress is that it is a condition in which a nurse remains under pressure which further results in lower quality of care for patients and in the nurses' personal and family life being interrupted (Adib-Hajbaghery, Khamechian, & Alvi, 2012).

Job stress can also be defined as an interaction between the job atmosphere and features of the worker, in which the additional job requirements and subsequent burdens mark the individual in huge restrictions in undertaking their responsibilities (Najimi, Goudarzi, & Sharifirad, 2012).

After reviewing relevant literature on job stress and concepts given by Lazarus and Folkman (1984) and incorporating the theory of psychological stress and coping (Lazarus & Folkman, 1984), it is now possible to give a proper definition of job stress. Job stress (JS) is defined as the degree in which registered nurses appraise to job stressors including nine subscales through their experience working in tertiary care hospitals.

Model of Job Stress

In some studies, the framework is derived from a well-tested theory that has been used as the framework for many quantitative studies. According to Burns and Grove (2011) various theories used as frameworks in nursing studies has been taken from other fields and most of them are based on theoretical works from psychology, Lazarus and Folkman's (1984) theory of stress and coping is one of them.

Due to fragmentation in initial works of scholars by 1960s, stress had developed a widespread paradigm in mental, psychosomatic, and nursing research. Lazarus's 1966 book, Psychological Stress and the Coping Process which also includes his own research outcomes has remained a superb resource, with elegant theoretical incorporation of all the research findings on stress and its association with health and the related people-related factors (Lyon, 2012).

According to Mark and Smith, (2008) Lazarus and Folkman's theory of psychological stress and coping (1984) is conceivably the most theoretically persuasive transactional theory. Sometimes it is also known as the Cognitive-Relational approach in which, the individual and their environment are seen being simultaneously in a vigorous bond, where stress is the mental and expressive condition that is characterized as inside portion of a stressful deal (Folkman, Lazarus, Dunkel-Schetter, DeLongis & Gruen, 1986).

Lazarus (1966), and Lazarus and Folkman (1984) affirmed that the chief moderator of the individual surrounding transaction was evaluation. Furthermore, they associated stress- linked variables with health-related outcomes. All of the concepts in their transactional model - when are organized together - mainly result in having impact on adaptational consequences. The theorist projected three categories of adaptational outcomes: (a) functioning in work and social living; (b) morale or life satisfaction; and (c) somatic health. They look at the concept of health largely as a way to integrate physical (somatic conditions including illness and physical functioning); psychological (cognitive functional ability and morale including positive and negative affects regarding how people perceive about themselves and their lives, including factors such as life satisfaction); and social (social functioning) aspects of one's life (Lyon, 2012).

Stress occurs when the equilibrium or well-being of the person is perceived to be threatened. According to French et al. (2000), there are various factors that can obviously create stress, including: conflict, ambiguity, and work overload. In regard to conflict with co-workers - and considering management on both the intrapersonal and interpersonal levels - Blair and Littlewood (1995) viewed as one of basic sources that can create stress in general and job stress in particular in settings. The basic reason could be a situation when satisfying a demand disrupts a strongly seized value; or, when - in order to satisfy the demands of one role - the requirements of another role must suffer. On the other hand, role ambiguity according to French et al. (2000) could be stressful – due to the lack of clarity as to what is expected. Overwork marks in developing stress for a reason when the necessities of social strains are supposed to be beyond the person's resources (Lazarus & Folkman, 1984). Hence, the Person-Environment [P–E] relationship is facilitated by three types of cognitive appraisals: primary appraisal, secondary appraisal, and reappraisal. However, this framework is steadfastly entrenched in the cognitive appraisal method, which is contradictory to the other P–E transaction models (Thong & Yap, 2000).

In conclusion, according to Thong and Yap (2000), though the job stress concept has been developed without regard to the specific occupation of the individual, no specific variables related to job stress are identified in the framework. Nevertheless, the basic stress process in the framework can be incorporated into other theoretical

frameworks. In addition, the Extended Nursing Stress Scale (ENSS) developed by French et al. (2000) – which is mainly used to measure job stress among nurses - is also based on the model proposed by various scholars, including the stress and coping model proposed by Lazarus and Folkman (1984).

Measurement of Job Stress

According to McGrath, Reid, and Boore (2003) a full assessment of stress would include physiological measurements; biochemical analyses of blood; and a variety of rating methods to measure physical and mental health status. However, on the other hand, the occurrence of stress can be confirmed through other types of procedures - such as observation; checklists; self-reporting; and interviews (Figueroa-Fankhanel, 2014).

The cognitive model of psychological stress was first described by Appley and Trumbull (1967) and then by Lazarus (1966). This model was elaborated later on by Lazarus and Folkman (1984). As far as the issues involved with incorporating the stress process into practical usage, Gray-Toft and Anderson (1981) first developed seven subscales of job stress among nurses comprising a total of 34 items, with a 4-point Likert Scale and seven subscales. Then, an expanded 46-item version of the Nursing Stress Scale [NSS] was developed by Gray-Toft et al. (1985) with some modifications of the previous instrument, reflecting some more types of stressful situations. However, the existence of the two versions of this scale was confusing for many researchers. Also - due to changes in the work life of nurses - the subscales of the NSS were not necessarily reflecting the changes in the sources of nurses' stress. Therefore, there was a need to develop a more extended job stress scale for nurses. The main reasons for further revision and updating of the NSS were to identify stressful situations that had not been previously present in the NSS; to develop an expanded version of the NSS for use in diverse work settings; and to assess the reliability and validity of the expanded version of the NSS, based on a sample of 2,280 nurses in Ontario, Canada (French et al. 2000). The NSS was the first instrument to specifically target nursing stress -rather than general job stress (Kamal, Al-Dhshan, Abu-Salameh, Abuadas, & Hassan, 2012).

As a result of the above-described situation, the Extended Nursing Stress Scale [ENSS] was developed by French et al. (2000) which is at present, widely used at global level to measure job stress among nurses (Andal, 2006; Kamal et al., 2012; Milutinovic et al., 2012; Rita et al., 2013); and in midwives (Banovcinova & Baskova, 2014).

The ENSS is an expanded and reorganized revision of the classic Nursing Stress Scale (NSS) developed by Gray-Toft and Anderson (1981). The ENSS contains 57 items arranged in nine subscales among nurses. These are: (1) Death and Dying; (2) Conflict with Physicians; (3) Inadequate Emotional Preparation; (4) Problems Relating to Peers; (5) Problems Relating to Supervisors; (6) Work Load; (7) Uncertainty Concerning Treatment; (8) Patients and their Families; and (9) Discrimination.

The 57 items are arranged in a 5-point Likert Response Scale. The responses are: "doesn't apply" (1); "never stressful" (2), "occasionally stressful" (3), "frequently stressful" (4), and "extremely stressful" (5) (French, et al. 2000). There are no specific cut scores or published mean norms for the ENSS that determine whether or not an individual is stressed; however, higher scores indicate higher level of stress (Kamal et al., 2012).

The content validity of the instrument was established through a panel of experts that had examined the validity of the questionnaires and given their opinions and suggestions to investigate the clarity, relevancy and adequacy of items (Hamaideh, Mrayyan, Mudallal, Faouri, & Khasawneh, 2008). Meanwhile, the discriminant validity of the ENSS was examined by computing Product Moment Correlations with overall Life Stress ($r = .17$, $p < .001$ [one-tailed test]) and Health Problems Index ($r = .34$, $p < 0.01$ [two-tailed test]) (French et al., 2000).

Internal consistency reliability was assessed using Cronbach's coefficient alpha. The 57-item ENSS demonstrated improved reliability ($\alpha = .96$) (French et al., 2000). The alpha of each subscale was found as follows: death and dying (0.84); conflict with physicians (0.78); inadequate emotional preparation (0.74); problems with peer support (0.70); problems with supervisors (0.88); workload (0.86); uncertainty concerning treatment (0.83); patients and families (0.87); and discrimination (0.65) (French et al., 2000).

The detail of each dimension of the ENSS is as follows:

Death and dying. According to Carteret in 2010, the occurrence of death and dying – and the associated grief during this event - are normal life events. Additionally, end-of-life experiences occur on a worldwide basis; hence, the forms of behavior associated with expressing grief are very much culturally bound. Furthermore, most cultures have established customs to cope with death in a respectful manner; interfering with these practices can disrupt people's ability to cope during the grieving process. The seven items contained in this subscale are identical to those in Factor 1 in the original NSS (French et al., 2000). Some of the examples of items in this dimension are: "Performing procedures that patients experience as painful;" "being in charge with inadequate experience;" "lack of support from other health care administrators;" "having to work through breaks," etc. The profession of nursing is imbued with a variety of diverse demands; these comprise physical (high workload); emotional (issues to do with death and dying of patients); and social demands (conflict with colleagues) (Gray-Toft & Anderson, 1981).

Conflict with physicians. Conflict can be reflected as a break in social order - and also as a negative experience instigated by error or disappointment. Moreover, conflicts between professionals - including nurses and physicians - are noticeable for a huge portion of nurses as a nursing team (Amestoy et al., 2014). The five items in this subscale include four of the original items: "criticism by a physician, "conflict with a physician," "disagreement concerning the treatment of a patient," and "making a decision concerning a patient when the physician is unavailable. "Fear of making a mistake in treating a patient" was removed from this subscale during the Confirmatory Factor Analysis (CFA) but a new item - "having to organize doctors' work" - was added. The introduction of this latter item may indicate that nurses' workloads are expanding – or, alternately, that doctors' expectations of nurses are broadening, providing further opportunities for conflict to emerge (French et al., 2000).

Inadequate emotional preparation. In this dimension, three items are identical to Factor 3 in the original NSS (French et al., 2000). According to Cohen-Katz et al. (2005) nurses often perceive that they are not adequately prepared to help the emotional needs of a patient's family. It can be detected when a patient asks a question and in

return has no satisfactory answer. Factors of intense emotional support required for the patient and family are yet another burden of stress placed on nurse. Also, exposure to pain, sorrow and hurtful life occasions that a nurse experiences on a daily basis can add to stress.

Problems relating to peers. This dimension consists of a total of six items. French et al. (2000) explained that the six items in this subscale pertain to the social relations that nurses have with their peers that may result in stress. Moreover, it includes three items pertaining to nurses' assessments of the extent to which they lack opportunities to share experiences with other nurses, which had formed the subscale *Lack of Support* (Factor 4) in the original NSS. It also includes the two items pertaining to difficulties experienced in working with particular nurses (factor 5) in the original NSS and one new item "difficulty with working with nurses of the opposite sex."

Problems relating to supervisors. According to French et al. (2000) the seven items in this subscale measure the extent to which nurses experience conflict, criticism, or lack of support from immediate supervisors, nursing administrators, or other health care administrators. It contains two items from the conflict with other nurses subscale in the original NSS. It also includes five new items: "lack of support by nursing administrators;" "lack of support by other health administrators;" "being held accountable for things over which I have no control;" and "criticism by nursing administrators."

Work load. This dimension of job stress consists on total nine items. This measure includes stressful events that arise from the nurse's workload, including the quantity of tasks, staffing and scheduling problems, and lack of time (French et al., 2000). Five of the six original NSS items have been retained with the exception being "breakdown of computers" which was deleted completely from this scale. In addition four new items have been added: "not enough time to respond to the needs of the patients' families," "demands of patients' classification system," "having to work through breaks," and "having to make decisions under pressure". These items reflect the same type of concerns measured by the original indicators, and therefore seem to provide a slightly better measure of this subscale.

Uncertainty concerning treatment. In this dimension, also, nine items have been, developed as in "workload." "Fear of making a mistake in treating a patient" was added. This item was previously included in "Conflict with physicians" in the Gray-Toft and Anderson's (1981) NSS (French et al., 2000).

Patients and their families. There are a total of eight items found in this subscale about patients and their families that relate job stress among nurses. This measure incorporates eight stressful situations related to interactions with patients and their families - none of which had been contained in the original NSS (French et al., 2000).

Discrimination. This subscale contained three items relating to discrimination on the basis of sex, race, or ethnicity - none of which had been included in the original NSS. These items are: "Being sexually harassed;" "Experiencing discrimination because of race or ethnicity;" and "Experiencing discrimination on the basis of sex" (French et al., 2000). Factor analysis for 'discrimination' showed that the items on sexual discrimination accounted for more variance than the one item on ethnic discrimination.

A review of research literature has discussed the various job stress scales that have been developed. However, in this study, job stress among nurses was measured by the Expanded Nursing Stress Scale (ENSS) developed by French et al. (2000). This scale possesses both required validity and reliability. Therefore, it has been widely used at global level in many studies to measure job stress among nurses.

Studies Related to Job Stress

Job stress has been measured by many researchers among various employees, including nurses by using the ENSS at global level (Andal, 2006; Kamal et al., 2012; Milutinović et al., 2012; Rita et al., 2013) and midwives (Banovcinova & Baskova, 2014).

Milutinjnović et al. (2012) in Serbia, found that the nine factors on the Extended Nursing Stress Scale (ENSS) accounted for 52 % of nursing stress variance in Intensive Care Units. Furthermore, nurses rated the "death and dying" group situations as the most stressful - especially the death of a patient with whom they developed a close

relationship (M=3.13; SD=1.02). However, the "problems with peer-group" situations were rated M=2.09; SD=0.93 and these were considered the least stressful. Whereas, married nurses experienced a higher level of stress at work in the situations of the death and dying (p=0.01) and workload (0.03) subscales, as compared to divorced or single nurses. Nurses in the age category of 30 to 39 years experienced a higher stress level compared to their younger or older co-workers. These situations were found to be more stressful by the nurses with secondary education level than by those with a higher-level education.

Kamal et al. (2012) found moderate job stress on ENSS, with Mean = 2.51, SD = 1.29. In that study, the most stressful subscale was "Death and Dying" among nurses' the Kingdom of Saudi Arabia. However, the least stressful subscale was "Inadequate Emotional Preparation," with a mean score of 2.39.

In another study in the Kingdom of Saudi Arabia, Saleh, Saleh, and AbuRuz (2013) also found a moderate level of job stress (Mean = 2.51, SD = 1.29) among nurses in one specialist hospital. Death and dying; conflict with physicians; and inadequate emotional preparation were among the most stressful components of job stress. Whereas; problems with peers; problems with supervisors; and workload scored at the moderate level as far as the job stress scale. Uncertainty concerning treatment; patients and their families; and discrimination were the least stressful events perceived by nurses.

Leung-Chun (2013) found a moderate degree of job stress among nurses with a mean score on the ENSS 140.77 out of 228 total JS score in an acute public care hospital in Hong Kong. The top stressor among the nine subscales of ENSS was the stress associated with one's supervisor; this was followed by the stress associated with uncertainty concerning treatment. On the other hand, workload was the third worst stressor; patients and their families was the fourth worst stressor, and inadequate preparation was the fifth worst stressor perceived by nurses in this study. Lower down on the scale, conflict with physicians; problems with peers; and death and dying were ranked as sixth, seventh, and eighth respectively. Finally, discrimination was the least stressful component.

Mehta and Singh (2014) found moderate job stress among nurses working in critical care areas at a tertiary care teaching hospital in Nepal. The majority of respondents (56%) had experienced moderate stress. The next most frequent occurrence was mild stress (34%). The least frequent occurrence was severe stress (6%), which was at a somewhat low level. A small number of respondents (4%) had no stress at all in their workplace. The job stressors were in following sequence: Workload; problems with supervision stressors; problems with peers stressors; conflict with physician; death and dying; inadequate emotional preparation; uncertainty concerning treatment; patient and family; and discrimination.

Damit (2007) found moderate perceived job stress on ENSS with Mean = 2.55, SD = 0.73. Furthermore, these researchers found that the most stressful subscale was "uncertainty concerning patient treatment," with Mean = 2.88, SD = 0.77. However, the least stressful subscale was discrimination, with Mean = 1.43, SD = 1.17 among nurses' in Brunei Darussalam.

Banovcinova and Baskova (2014) sought to learn more about work-related stress and their effect on burnout among midwives in Slovakia. Their study revealed that death and dying and conflict with physicians were the most stressful events perceived by midwives (Mean = 2.07; SD = 1.15). Meanwhile, experiencing discrimination on basis of their sex and/or being sexually harassed were perceived as the least stressful events (Mean = 0.64; SD = 0.74). Additionally, there was a strong relationship found regarding conflicts with doctors, supervisors, and other midwives with work overload and emotional exhaustion. However, a positive relationship between conflicts with both doctors and other co-workers, and work overload and personal accomplishment was shown. A negative but weak relationship was revealed between inadequate preparation and depersonalization.

Conversely, a study in Ghana, Rita et al. (2013) - which compared the level of job stress and job satisfaction among nurses in two hospitals - found that there was a high level of job stress with mean (M=2.98, SD= 1.52) among nurses. On the other hand, workload was the most predominant stressor among nurses in one hospital with mean (M= 2.70, SD = 3.31).

Most of the studies indicate a moderate level of job stress among nurses. However, one study in Ghana shows a high level of job stress among nurses. The above studies clearly show that job stress is quite prevalent among nurses' in hospitals at global level.

Presenteeism

Definition of Presenteeism

Many authors have defined the term, presenteeism as follows:

Smith (1970) defined presenteeism as, attending work, as opposed to being absent.

According to Stolz (1993) presenteeism means exhibiting excellent attendance.

Hummer, Sherman, and Quinn (2002) define presenteeism as, reduced productivity at work due to health problems or other actions that further disturb one from to be complete productive.

Sheridan (2004) defined presenteeism as being reluctant to work part time rather than full time.

Going to work despite a sentiment of being unhealthy or experiencing other occasions that might usually require absence (Evans, 2004; Johansson & Lundberg, 2004).

According to Turpin et al. (2004) presenteeism is 'compact productivity at work due to health problems'.

Presenteeism means going to work in spite of feeling unhealthy (Dew, Keefe, & Small, 2005)

Presenteeism occurs when an employee goes to work regardless of a medical illness that will avert him or her from abundantly working (Widera, Chang, & Chen, 2010).

Presenteeism is defined as 'the productivity lost when employees come to work but, as a consequence of illness or other medical conditions, are not fully productive' (Econtech, 2011).

Presenteeism can be defined as 'the state of being physically present but less than fully functional because of illness or other distraction' (O'Donnell, 2014).

The above-described relevant literature with definitions of presenteeism clearly portrays the concept of presenteeism, both "positive" and "negative." However, various experts - including Koopman et al. (2002); Smith (1970); and Stolz (1993) - have viewed presenteeism as being "positive" instead of "negative." Subsequently, Pelletier and Koopman (2003) referred to the positive orientation as a "flexible definition." They equated high performance with increased presenteeism and low productivity or poor-quality work with diminished presenteeism.

Hence, on the basis of the above-described literature review and viewpoints of experts, the researchers have settled on the operational definition of presenteeism given by Koopman et al. (2002). According to them, presenteeism is "an active nurses engagement in work with a focus on cognitive, emotional, and behavioral engagement during work." This is the definition of the term that will be used in this study.

Theoretical Framework of Presenteeism

The notion of presenteeism is an attribute as recommended by Koopman et al. (2002) and Pelletier and Koopman (2003). It is the practice of rational testing, as sustained by candid academics such as those in the Health and Productivity Management field. Since 2000, McCunney, Lerner, Goetzel and numerous classmates as well as Aaronsson in Switzerland, Yamashita in Japan, and Dew in New Zealand, and others have established a prime model consisting of both inflexible approaches and dynamic, pragmatic approaches that are connected to presenteeism (O'Donnell, 2014).

Koopman et al. (2002) and their coworkers were interested in workforce productivity and in the sustainability of any organization's inclusive performance. Moreover, the empirical evidence from literature shows that workers' productivity is affected by employees' health (Turpin et al., 2004). According to Burger, Murray, Xu,

and Pauly (2001) workforce productivity can be related to variety of factors that can have both direct and indirect effects. According to McCunny (2001) it is very difficult to estimate productivity in such careers in which cognitive jobs are more challenging.

O'Donnell concluded in 2014 that, the concept of presenteeism is still in the earliest stages of development. The idea was actually initiated only as recently as the 1950s. At this time, scholars began to study the basic characteristics of absenteeism. They first gave it such obvious interpretations as the illness-nature of work; management-centered concerns were focal among researchers. On the other hand, Covner (1950) recognized that absenteeism is not an anarchistic occurrence. Instead, it happens with adequate uniformity of configuration to make it freely agreeable for exploration. In other words, since it happens according to particular patterns, it is a concept which can be explored constructively by research.

Diminution in health-associated productivity can be apparent as either absenteeism or lower presenteeism (Koopman et al., 2002). A decline in presenteeism can upset productivity as much as an upsurge in absenteeism (Burton, Conti, Chen, Schultz, & Edington, 1999). Previous studies have shown that higher absenteeism rates are evident when employees suffer from health problems (Aldana & Pronk, 2001; Dewa & Lin, 2000). Studies have also found that lowering absenteeism and increasing presenteeism results in better productivity (Cady, Ryan, Jhingran, O'Quinn, Pait, & 1998; Cockburn et al., 1999). More health-care services received by the workforce result in a larger degree portion of health-related productivity (Bunn, Pikleny, Slavian, & Paralkar, 2001).

Improved health management lowers absenteeism and increases presenteeism (Koopman et al., 2002). Presenteeism is active employee engagement in work, with a focus on cognitive, emotional, and behavioral engagement during work. Furthermore, presenteeism consists of two dimensions. (1) Completing Work. This refers to the amount of work accomplished – regardless of any sort of presenteeism effect (work focus). (2) Avoiding Distraction. This denotes the ability to concentrate on the process of doing work, despite any sort of presenteeism effect (psychological focus). According to the first dimension of presenteeism, regardless of having health problems, workers are able to finish their hard tasks and to focus on achieving their goals. Finally,

employees feel sufficiently energetic to complete the job tasks during their duty hours. On the other hand - according to the second dimension of presenteeism - due to health problems, employees perceive the stresses of the job as being much more difficult to handle; they also feel distraction from taking pleasure in their work. They feel hopeless about finishing certain work tasks (Koopman et al., 2002).

Measurement of Presenteeism

The Stanford Presenteeism Scale (SPS-6) has been widely used to measure presenteeism among nurses (Brborović et al., 2014; Letvak, Ruhm, & Gupta, 2012; Martinez & Ferreira, 2012; Yang et al., 2012). The presenteeism among nurses in this study was measured using the SPS-6 scale that was developed by Koopman et al. (2002)

Stanford Presenteeism Scale (SPS-6). According to researcher's review of relevant literature, three separate forms of the Stanford Presenteeism Scale are found: SPS-32, SPS-13, and SPS-6. Among them first two scales have been used in very few studies and are still under way to find validity. On the other hand, SPS-6 is being used in several studies at the global level. The SPS-6 is predominantly used for evaluating an individual's capability as far as the various aspects of presenteeism (Koopman et al., 2002). The Stanford instruments are the only ones (Lynch & Reidel, 2001) among all accessible productivity methods that have concentration firmly on presenteeism (Chapman, 2005). The SPS-6 is the most concise and appropriate of these (Collins et al., 2005; Turpin et al., 2004).

The Stanford Presenteeism Scale (SPS-6) is a self-report questionnaire comprising a six-item scale, with a reliability of .80 (Koopman et al., 2002). Each question is linked to a Likert five-item response scale ranging from "strongly disagree" to "strongly agree." Self-reporting measures have been utilized; these instruments have been found to be appropriate and reliable as far as measuring this phenomenon (Kessler et al., 2004). The scale measures workers' insights in regard to their ability to overcome the interference of physical and/or psychological problems in order to overcome job stress; complete tasks; accomplish goals; and uphold appropriate attention and energy levels (Pelletier & Koopman, 2003).

According to Koopman et al. (2002) SPS-6 consists of two dimensions. The first one is Completing Work (as measured in items 2, 5 and 6). This category refers to the amount of work accomplished, despite some sort of presenteeism effect (work focus). The second one is Avoiding Distraction (as measured in items 1, 3 and 4). This category denotes the ability to concentrate on the process of doing work, in spite of some sort of presenteeism effect (psychological focus). The SPS-6 aims to address cognitive, emotional and behavioral aspects of concentration covering both the processes and consequences of work. It uses a balance of positively- and negatively- worded questions, arranged in a "practical and concise tool with excellent psychometric properties." According to Koopman et al. in 2002, a respondent with decreased presenteeism (i.e., one with a low score) is one who is physically present in her or his job, but who may "experience decreased productivity and below-normal work quality" due to an illness or other constraint. On the other hand, a high SPS-6 score indicates increased presenteeism which is defined as having "a greater ability to concentrate on and accomplish work, despite health problem(s)".

As for as scoring is concerned, items #2, 5, and 6, were measured according to scores on the Likert five-item Response Scale: "strongly disagree" (1); "somewhat disagree" (2); "uncertain" (3); "somewhat agree" (4); and "strongly agree" (5). Meanwhile, items #1, 3, and 4, were measured by way of the following reverse scores: "strongly disagree" (5); "somewhat disagree" (4); "uncertain" (3); "somewhat agree" (2); and "strongly agree" (1) (Koopman et al., 2002).

After the collection of data was completed, the scores were added up, in order to get the SPS-6 total score. Moreover, the total scores ranged from 6 to 30 from lower scores indicating lower presenteeism (Mandiracioglu et al., 2015) and higher scores indicating better performance at work (Pelletier & Koopman, 2003). For statistical analysis, one needs a clear cut-off score, in order to properly divide respondents into two groups: those whose performance was affected by presenteeism, and those whose performance was not affected.

The SPS-6 has been developed, tested and refined as well as validated in previous studies (Collins et al., 2000; Koopman et al., 2002; Pelletier & Koopman, 2003; Turpin et al., 2004). It has been established as exceptionally suitable for the study of

presenteeism - especially as a concept distinct from that of absenteeism (Koopman et al., 2002; Lynch & Riedel, 2001). Its concurrent validity has been found to be high - with strong to moderate correlations between the SPS-6 scores and scores on specific measures of presenteeism: the percentage of productive time ($r = 0.53$, $p < 0.001$); the proportion of work accomplished ($r = 0.47$, $p < 0.001$); and the percentage of time a person is likely to make more mistakes than usual ($r = -0.31$, $p < 0.001$) (Koopman et al., 2002). Criterion validity was established (Lofland, Pizzi, & Frick, 2004). Finally, discriminant validity has also been measured (Koopman et al., 2002).

In conclusion, SPS-6 has been chosen for use in various studies including nurses, as a result of its excellent properties of validity and reliability. Presenteeism among nurses was measured using the Stanford Presenteeism Scale (SPS-6) developed by Koopman et al. (2002) with its two dimensions: (1) Completing Work and (2) Avoiding Distraction.

Studies Related to Presenteeism

In order to measure presenteeism, Koopman et al. (2002) has developed the Stanford Presenteeism Scale-6 (SPS-6), which has been used in various health care disciplines, including nursing. In most studies, the cut-off score for SPS-6 of 18 has been utilized, in order to divide respondents into two groups: those whose performance has been affected by presenteeism (lower than 18); and those whose performance has not been affected (higher than 18).

In a cross-sectional study in Croatia, Brborovic et al. (2014) investigated presenteeism and patient safety culture among medical nurses in one general hospital. Researchers found total scores on the SPS-6 with mean 21.3 ± 4.58 (Mean, SD) to range between 7 and 30. This indicates a high intensity of presenteeism. In addition, it was found that total scores on the SPS-6 were normally distributed [$D (150) = 0.094$, $p = 0.58$; Kolmogorov Smirnov test]. Through hospital departments, mean SPS-6 scores were above the cut-off score of 18 - signifying that presenteeism is not department specific [differences not statistically significant $F (6,143) = 1.77$, $p = 0.109$, ANOVA].

Yang et al. (2012) in China explored the current status of health-related productivity loss among nurses. The average score of presenteeism on SPS-6 was 20.05 ± 4.37 (Mean, SD). The results have shown that presenteeism was at high level. Additionally, the score of married nurses was significantly lower than the other nurses ($Z = -3.52$, $P < 0.05$). Furthermore, the average score of nurses under 30 in age was significantly higher than the average score of those above 30 years ($Z = -2.49$, $P < 0.05$).

A Portuguese study by Martinez and Ferreira (2012) in a public hospital revealed that highly paid nurses were more likely to complete their work in a better manner "Completing Work" despite being affected by some kind of health symptoms ($r = 0.148$, $p < 0.05$). This has resulted in higher global scores of SPS-6 ($r = 0.146$, $p < 0.05$). Furthermore, the more experienced (senior) nurses presented both higher results of "Avoiding Distraction" ($r = 0.132$, $p < 0.05$) and higher global scores of SPS-6 ($r = 0.123$, $p < 0.05$). On the other hand, stress (33.9%) and anxiety (28.5%) were the psychosomatic circumstances found to be most predominant in nurses. While stress was reported more frequently by females (37.1%) than males (25.6%), the difference was not statistically significant. Negative significant correlations were found between both age and perceived health status ($r = 0.311$, $p < 0.01$) - as well as between age and working hours ($r = 0.137$, $p < 0.05$).

Letvak et al. (2012) found that approximately three out of four nurses were working with some pain. Additionally, presenteeism was significantly associated with various outcomes - including a higher number of patient falls; a larger number of medication errors; and lower quality-of-care scores.

There have been some significant findings in studies of employees other than nurses. For instance, in the United States of America, Koopman et al. (2002) while studying health status and productivity among employees in San Mateo County, California, found that the mean score for the SPS-6 to be 22.9 (SD, 4.0). The total score obtained by employees reporting a work or non-work related disability was significantly lower (mean, 21.0; SD 3.9), compared with that of employees who reported no disability (mean, 23.5; SD 3.8; $t [159] = 3.54$; $p = 0.001$). Moreover, it was found that SPS-6 total scores also correlated positively with job satisfaction ($r_s = 0.15$, $p < 0.05$) and negatively with job stress ($r_s = -0.22$, $p < 0.01$).

A cohort study of developing health promotion before and after surgical training among medical students in America conducted by Watson et al. (2009) found the mean on SPS-6 score to be 17.3 +/− 4.5 (Mean, SD), far below the population normative value of 24 +/− 3 (Mean, SD) ($p < 0.0001$). The mean SPS-6 score improved by 1.2+/− 3.8 (Mean, SD) after intervention. The analysis of the subgroup showed a trend toward improved SPS-6 in those who participated in the health promotion program ($p = 0.15$). It also showed a significant difference when junior residents were compared with seniors ($p = 0.034$).

In Turkey, Mandiracioglu et al. (2015) have investigated factors related to presenteeism among employees of the private sector and researchers found the mean score on the Stanford Presenteeism Scale 19.9 (SD =3.3). The total score was higher among workers in the food sector (20.16), and the female score was higher than that of males ($t = 2.195$, $p = .029$). The SPS-6 score was related to working at very high speed ($t = −3.461$, $p = .001$) and the score was higher among individuals with a chronic health problem ($t = 2.371$, $p = .020$). In order to assess gender, presence of chronic disease and working at very high speed on two dimensions of SPS-6 analysis showed gender (F, 9.389, $p = .000$) and presence of chronic disease (F, 12.22, $p = .001$) affected factor 2 (Avoiding Distraction). Working at high speed affected both factors [("Completing Work" (F, 8.894, $p = .003$) and "Avoiding Distraction" (F, 23.024, $p = .000$)].

Some previous studies conducted among nurses have revealed high level of presenteeism and its related factors. It can be inferred, therefore, from these studies that the scores of presenteeism vary among different workers.

Relationship Between Job Stress and Presenteeism

Empirical literature has shown that several factors are associated with presenteeism, These include: unhealthy lifestyles; illnesses; allergies and asthma; poor work life (Econtech, 2011); burnout (Demerouti et al., 2009); occupational stress; work impairment; perceived productivity (Benefits Canada, 2015; Kwon & Kim, 2010); and job stress (Econtech, 2011; Elstad & Vabo, 2008). Numerous studies have revealed that nursing is vigorous work; therefore, job stress is predominant among nurses (AbuAlRub, 2004; Lee, 2003; Li & Lambert, 2008). Job-related stress reduces the

quality of nurses' working lives. It also contributes to some forms of physical illness; and it may increase the incidence of minor psychiatric illnesses (Golbasi et al., 2008). Job stress can take up an ever-increasing health care budget. Also, it can increase the amount of work conducted with diminished capital (Bennett, Lowe, & Matthews, 2001).

Koopman et al. (2002) explored health status and productivity among employees in San Mateo County, California, in the United States of America. The researchers found that the mean score of presenteeism measured by SPS-6 correlated positively with job satisfaction and negatively with job stress. Moreover, the employees showed an increased ability to focus on work without being distracted.

In a more recent study in the USA, Yang et al. (2016) while studying the effects of coworker and supervisor support on job stress and presenteeism in an aging workforce, found that the level of presenteeism was low; on the other hand, job stress was moderate. Moreover, job stress was found to have a significantly direct positive relationship with presenteeism ($\beta = 0.30$, $p < 0.001$). It was also noted that, all job stress items were correlated with presenteeism ($r = 0.27$, $p < 0.04$) except one item (JS4).

Elstad and Vabo (2008) - in a study among elderly caring workers in four Nordic countries (Denmark, Finland, Norway, and Sweden) found that - with low levels of job stress - levels of reported sickness-related absence and sickness-related presenteeism were relatively moderate. The study also shows that - with the increasing level of job stress - the level of sickness-related presenteeism increased more abruptly than that of sickness-related absence.

In one study from Korea, Ryu, Jeong, Kim, Roh, and Won (2012) found that railroad workers experienced high levels of job stress and had much experience of presenteeism. The statistical results show an elevated odds ratio of 3.56 (95% CI 1.48-8.54) in the highest job stress group. It is significant that – in this study - presenteeism was identified using only one question: “Over the past twelve months, have you been working, even if you were sick?”

In a joint study taking place both in Australia and in the UK, Wan et al. (2014) conducted a survey to find out the relationship between emotional intelligence,

boredom, procrastination and job stress with non-work presenteeism (*the behavior of employees who engage in personal activities rather than work-related activities while at work*) among employees. The study found that self-reported levels of job stress were not significantly related to non-work related presenteeism.

The result from previous research regarding the relationship between presenteeism and job stress was inconsistent - as some have found a positive relationship, while others have shown a negative relationship. Still, some studies did not find any relationship at all. In order to confirm the association between two variables, more research studies are needed.

Situation of Health Care Delivery System in Pakistan

The Islamic Republic of Pakistan is an independent country situated in the South Asia with a population of nearly 200 million people. It is the sixth most populous country in the world (US and World Population Clock, 2015). It consists of four provinces; one federal capital territory; two autonomous and disputed territories; and a group of federally administered tribal areas. Pakistan is considered to be a lower middle-income country by the World Bank. The UNDP Human Development Index (HDI) ranks Pakistan 128 out of a total of 172 nations (Global Health Workforce Alliance, 2013).

The healthcare system in Pakistan has both public (government) and private health facilities (private hospitals). The public health sector comprises Primary Health Care (PHC) facilities that further cover Rural Health Centers (RHC) and Basic Health Units (BHU). Moreover, the Tehsil Headquarters hospitals accommodate the population at sub-district level. The District Headquarters hospitals cater to the district population; they provide Secondary Health Care (SHC) services. Meanwhile, Tertiary Health Care (THC) facilities are also available. These are mainly located in big cities, and they also serve as teaching hospitals (Meghani et al., 2014).

Pakistan has undergone some advancement in all its health indicators during the previous two decades crossing somewhat a milestone of overall growth. However, fundamental health indicators still lag behind, in comparison to the global goals.

Moreover, the entire health spending per individual in Pakistan improved less than per the average for all countries. On the other hand, the overall government outlay on health as a proportion of entire government spending improved. However, it was still under 4% in 2009; the gross national income per person has received comparatively better scores (Nishtar et al., 2013; World Health Organization [WHO], 2010).

Previous data collected from different sources shows that healthcare workforces in Pakistan encompass 91,823 medical doctors; 37,623 nurses; 4,175 dentists; 22,528 paramedics; and 5,619 female health workers. As far the infrastructure in the public sector is concerned, there are 796 hospitals; 93,907 hospital beds; 5,171 basic health units; 531 rural health centers; and 856 maternity and child health centers (Government of Pakistan, Ministry of Health, 2001; Shariff, 2001; World Bank, 1998). Basic-level healthcare dispensaries (n = 4,635) provide primary healthcare (Shariff, 2001; Islam & Tahir, 2002). Meanwhile, non-governmental organizations (NGOs) also exist on a dynamic basis in the health and social segment (Shaikh & Hatcher, 2004).

Nursing professionals work in Pakistan along with and/or under the medical administration. The Ministry of Health at each provincial level is responsible for the management of all health personnel and provision of health services. On the other hand, the Federal Ministry of Health takes care of health facilities and personnel that come under its jurisdiction, which is mainly in Islamabad, the country's capital city. According to Gul (2008) nursing encompasses three cadres: general nursing; midwifery; and public health nursing. The major pattern of nursing education - in both the public and private sectors - is characterized by three years of study for a Diploma in General Nursing. However, a few schools have recently began to offer a four-year Bachelor of Science in Nursing (BSc. N) degree. It is commonly termed the Generic Bachelor of Science in Nursing. All three cadres of nursing personnel are controlled by the Pakistan Nursing Council as Registered Nurses (RNs); Registered Midwives (RMs); and Lady Health Visitors (LHVs) respectively. Nurses usually work in hospital settings; whereas, people in the other two categories are normally deployed in community settings for maternal and child care.

Currently, around one thousand urban-based hospitals are facing acute shortages of nurses (Hamid, Malik, Kamran, & Ramzan, 2014). In addition, currently, only one

nurse is available per 3,043 people. However, a different study in 2009 documented the nurse- doctor proportion to be 4.6 nursing and midwifery personnel and 6.9 physicians per 10,000 people (Khowaja, 2009). The recognized nurse-to-doctor ratio is 1:2.7. This clearly shows the scarcity of nurses in hospitals (Nishtar et al., 2013). The existing nurse-patient ratio in the general wards is approximately 1:50 - whereas the Pakistan Nursing Council has recommended 1:10. As per government notification, Pakistan lacks 60, 000 nurses (Khuwaja, 2013). An almost similar or perhaps worse picture can be been seen in the neighboring country of India in regard to nursing shortages. Here, there is one physician for every 1700 people; however, there are only 61 nurses per 100,000 people (Sinha, 2012).

In particular, urban-based hospitals are facing an acute shortage of nurses (Nishtar et al., 2013). One reason for this shortage is the environment in which nurses perform their duties (Alwani, 2009). In addition, some more significant reasons for these shortages have been documented as underproduction; brain drain; social unrest; inferior status; feminist perception; the unethical image of nurses presented by the media; sexual harassment; workplace violence; bullying; lack of monetary incentives; poor working conditions. Another major issue has been the uneven distribution of nurses among provinces - with Sindh facing the most severe shortage of nursing staff. On the other hand, Khyber-Pakhtunkhwa has the largest number of nurses (Hafeez, Khan, Bile, Jooma, & Sheikh, 2010; Khowaja, 2009; Oulton & Hickey, 2009; Somani et al., 2012).

Nurses perform various roles in wards, as described by the Pakistan Nursing Council (1999). These include - but are not limited to - assisting physicians during daily rounds; carry out their orders in regard to medication; checking vital signs; maintaining and keeping updated patient records; and mentoring student nurses. Even in some hospitals, nurses have to perform simple tasks, such as bedding. However, in many Asian countries for example, in Thailand - these simple tasks are performed by Licensed Practical Nurses, and they are allowed by law to carry out many of the same duties as a Registered Nurse (Chiang-Hanisko, Ross, Boonyanurak, Ozawa, & Chiang, 2008). The nurses are bound to do 12-hour night duty for one month on a rotation basis, which causes many problems for them (Malik, 2006). On the other hand, physicians and administrators are considered the dominant group in health care settings. Quite often,

this dominant group reveals hostility and violent behavior towards nurses. In addition to this, the media has promulgated some very negative images of nurses in society. For example, they have spread several stereotypes of nurses - such as their being sex symbols and as being the obedient servants of physicians (Somani et al., 2012).

A survey conducted by Agboatwalla and Niazi (2010) found that the absenteeism rate from designated health facilities in Sindh, Pakistan, for doctors was 35.7%; for nurses was 26.7%; and for technicians was 18.9%. Conversely, some other studies show that high workload; a biased and rigid attitude among nursing management; and lack of appreciation and monetary incentives for nurses while working in tertiary care hospitals in Pakistan (Bahalkani et al., 2011; Kumar et al., 2013). A high workload; a biased, rigid attitude; a non-conducive environment; and a lack of appreciation are some of the factors that lead to develop and/or increase job stress among nurses (Clegg, 2001). However, very little is known about the extent of job stress, according to the dimensions suggested by French et al. (2000) among nurses in tertiary care hospitals in Pakistan.

In order to measure the general health status and the frequency of coronary heart disease risk factors among nurses in Pakistan, Khan et al. (2012) conducted a study to find out the frequency of coronary heart disease risk factors among nurses. The study revealed that the proportion of nurses with hypertension to be 18.8%; coronary artery disease, 33.3%; and diabetes, 10.9%. The mean body mass index was found to be 28.80±4.77 (Mean, SD). Each nurse knowing her or his own health practices may have a profound effect on the consumers of nursing services (Connolly et al., 1997). Nurses work in demanding shifts; they are exposed to life-threatening infections, but they still diligently perform their jobs (Chauhan, 2014). One can expect that nurses' who know their risk factors - and who engage in a healthy lifestyle - can be more effective in counseling roles (Abuissa et al., 2006); this, later on, results in better productivity (Mandiracioglu et al., 2015). These studies and data show that nurses in Pakistan have moderate to high sickness rates. Additionally, they also perform in grueling shifts, such as 12-hour night duty for one month on a rotation basis (Malik, 2006). However, little is known whether work-related occurrences of sickness affect the nurses' work performance.

From the above handful studies and literature review, one can conclude that nurses in Pakistan not only have health problems, There is also high workload; problems with supervisors; and an environment that is not conducive (Bahalkani et al., 2011; Kumar et al., 2013). Literature confirms that some such factors are likely to produce job stress among the nurses (Clegg, 2001). Current empirical evidence shows that job-related stress negatively affects the health of workers (Golbasi et al., 2008; Lambert et al., 2004). Being unhealthy but still on duty (presenteeism) reduces work productivity (Mandiracioglu et al., 2015). Numerous studies have revealed that nursing is strenuous work; therefore, job stress is prevalent among nurses (AbuAlRub, 2004; Lee, 2003; Li & Lambert, 2008).

The existing literature on job stress and presenteeism derives mainly from other parts of the world. Specifically, it tends to come from Western contexts. Therefore, this literature may not accurately reflect the prevalence of presenteeism - as well as job stress - in other regions or countries in relation to tertiary care hospitals, culture, and/ or economic status. While much research is available that has explored the rates of absenteeism, sickness, workload, and management, there is a paucity of reported academic research work in the area of job stress and presenteeism. Hence, there are conspicuous gaps in the knowledge we have regarding job stress and presenteeism among nurses in tertiary care hospitals in Pakistan. Based upon the above studies and data regarding work conditions, management, and the general situation in tertiary care hospitals in Pakistan, it is necessary to conduct a nursing research study to explore the job stress and presenteeism among nurses working in three tertiary care hospitals.

The study was conducted during the months of February and March in 2016 among staff nurses working in the following three tertiary care hospitals: the Jinnah Postgraduate Medical Centre (JPMC); the Civil Hospital, Karachi (CHK); and the Abbasi Shaheed Hospital (ASH), in Karachi, Sindh, Pakistan. The findings of the study may contribute to the body of knowledge in understanding job stress and presenteeism, as it may confirm their existence in workplaces and also help to gain further insights into the concept, which underlie presenteeism. Resulting from this knowledge, effective interventions can be then developed by head nurses and other concerned professionals. These interventions may be helpful in reducing the impact of workplace health

problems (presenteeism) and job stress and their prevalence. Furthermore, this study may provide baseline data for future research.

Conceptual Framework

The concept of job stress was based on Lazarus and Folkman's theory of psychological stress and coping (1984). Using this theory by incorporating the stress process, Gray-Toft and Anderson (1981) and French et al. (2000) identified nine job stressors in nursing: (1) Death and Dying; (2) Conflict with Physicians; (3) Inadequate Emotional Preparation; (4) Problems Relating to Peers; (5) Problems Relating to Supervisors; (6) Work Load; (7) Uncertainty Concerning Treatment; (8) Patients and their Families; and (9) Discrimination. Nurses who perceived low job stress will be active and engaged in their work and they will thereby show better performance. Higher levels of job stress increase sickness presenteeism (Elstad & Vabo, 2008). The concept of presenteeism, based on Koopman et al. (2002), is an active employee engagement in work with a focus on cognitive, emotional, and behavioral engagement during work. Presenteeism consists of two components: completing work and avoiding distraction. The relationship between job stress and presenteeism was tested in this study.