Perceived Social Support, Empathy and Compassion Fatigue among Nurses

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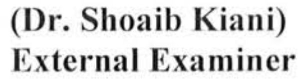

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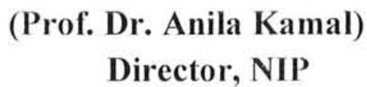

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CERTIFICATE

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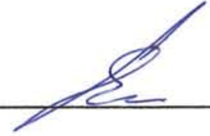

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Table of Content

List of Tables I

List of Appendices ii

Abstract iii

Chapter1.Introduction 1

Perceived Social Support 2

Types of Perceived Social Support 4

Theoretical Perspective about Perceived Social Support 6

Empathy 9

Components of Empathy 10

Compassion Fatigue 13

Symptoms of Compassion Fatigue 13

Theoretical Perspective about Compassion Fatigue 14

Relationship between Study Variables 16

Relationship with Demographics 23

Conceptual Framework 25

Rationale of the research 27

Chapter 2. Methods 29

- Objectives 29
- Hypotheses 29
- Operational Definition 30
- Sample 31
- Instruments 32
- Procedure 33

Chapter 3. Results 34

Chapter 4. Discussion 48

- Conclusion 52
- Limitation and Suggestion 52
- Implications 53

References 54

LIST OF TABLES

Table 1	*Demographic Profile of the sample (N=242)*	31
Table 2	*Descriptive (N=242)*	34
Table 3	*Inter-correlation among Study Variables (N = 242)*	36
Table 4	*Multiple Linear Regression analysis (N-242)*	37
Table 5	*Mediation analysis (N=242)*	38
Table 6	*Gender Differences on Empathy, Perceived Social Support and Compassion Fatigue among Nurses (N = 242)*	40
Table 7	*Differences of marital status on Empathy, Perceived Social Support and Compassion Fatigue among Nurses (N = 242).*	41
Table 8	*Differences of age on Perceived Social Support, Empathy and Compassion Fatigue among Nurses (N = 242)*	42
Table 9	*Differences on Job experience along with Perceived Social Support, Empathy and Compassion Fatigue among Nurses (N= 242).*	43
Tablec10	*ANOVA of Perceived Social Support (N=242)*	44
Table 11	*ANOVA of Empathy (N=242)*	45
Table 12	*ANOVA of Compassion Fatigue (N=242)*	46

LIST OF ANNEXURES

ANNEXURE A Informed Consent

ANNEXURE B Demographic Information Sheet

ANNEXURE C Multidimensional Scale of Perceived Social Support

ANNEXURE D Toronto Empathy Questionnaire

ANNEXURE E Professional Quality of Life Scale

ABSTRACT

The present study was aimed to identify the relationship between perceived social support, empathy and compassion fatigue among nurses. Data was collected from sample of 242 nurses including male (n=60) and female (n=182). The age range of the participants was between 20 to 50 years. Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1998) was used to measure perceived social support. Toronto Empathy Questionnaire by Spreng et al. (2009) was used to measure empathy, and Professional Quality of Life Scale (Stamm, 2005) was used to evaluate compassion fatigue among nurses. Correlation analysis was carried out to identify the relationship between perceived social support, empathy and compassion fatigue. Results showed that perceived social support from all its sources (family, friends and significant others) is negatively associated to compassion fatigue and its subscales, which includes secondary traumatic stress and burnout. Perceived social support and its sources also showed the negative relationship with empathy whereas empathy and compassion fatigue along with its subscales are positively related to each other. Role of demographics i.e. age, gender, marital status, job experience and medical department were also explored in the study and the results show that the various medical departments of nurses significantly affect perceived social support, empathy and compassion fatigue. Results of t-test revealed significant mean differences on the study variables across gender and marital status. Multiple linear regression analysis shows that perceived social support and empathy are significant predictors of compassion fatigue. Mediation analysis illustrate that empathy mediates the relationship between perceived social support and compassion fatigue. Implications and limitations for the present study are also discussed, as this study will be helpful for further researches in future regarding the current topic.

INTRODUCTION

INTRODUCTION

Generally in a collectivistic society like Pakistan care taking is not a rare process to see, as in a collectivistic societies people stay in touch and take care of each other in all times and conditions. Care giving process always require empathy, the most empathetic person will always care better of people around them (Eisenberg, Miller, Shell, McNalley, & Shae, 1991). But too much of empathy is psychically dangerous for the person who has it, as there is a cost of everything; cost of too much empathy is fatigue (Duarte, Gouveia & Cruz, 2006). The care provider who is continuously providing care to others empathetically can be fatigued to a level that their own life can be disturbed (Raab, 2014). At this point when a person gets fatigued a protective factor in a society like Pakistan is social support. It comes by different means by family, friends and spouse or partners.

When care giving is taken as a profession the first profession that comes to mind is the profession of nursing (Raab, 2014). This profession requires most empathy as they have to take care of patients continuously. But generally when we take a look at the behavior of experienced nurses, it doesn't seem to be empathetic at all. Moreover, it's sometimes rude. But there is a reason behind it and that is untreated compassion fatigue. The most empathetic nurse after giving a lot of care gets fatigued due to which her own life is disturbed and it leads to the loss of her empathy. Due to this reason services of hospitals are also affected.

In order to treat the above mentioned problem it is necessary to study the antecedents and consequences of compassion fatigue and its relationships with different behaviors. It is widely debated in the field of medical care that the three variables, empathy, perceived social support and compassion fatigue are interconnected with each other. While empathy is seen as a vital part of efficiently providing support, it is important to remember that it is also viewed as leading to an especially affecting sensitivity that can cause disorders of stress, as well as compassion fatigue and general depletion of emotion (Rothschild, 2006).

Such view is also presented by Figley (1996), where he stated that caregiver's empathy level plays a significant role in the development of compassion fatigue. Furthermore, the views of various other scholars depict that Empathy and compassion fatigue are positively correlated. The phenomenon was described in detailed by Sabo, (2006) who represented his thoughts that empathy helps in caring work but on the other hand it leads to compassion fatigue. This means what at one point the caregiver starts to suffer exhaustion and burnout which leads to compassion fatigue. This idea is also supported by Jenkins and Warren, (2012), where they describe that compassion fatigue lead to loss of empathy. The above explanation by the known scholars illustrate that is a strong connection between empathy and compassion fatigue.

Present research is an attempt to provide an over view that the three variables, Empathy, Perceived Social Support and Compassion Fatigue are interconnected with each other. In our research we will study these variables and see how they are interconnected among nurses in Pakistan.

Perceived Social Support

It has been defined by Gottlieb (2000) as "a process of interaction in relationship which improves coping, esteem, belonging and competence through actual and perceived exchanges of physical or psychosocial resources" (p. 200). Perceived social support is considered as an important asset that an individual thinks to be present or that is truly provided to the individual both by recognized support groups and by the intimate relationships. Furthermore, social support is also considered as the kind of feedback which a person receives through the contact with significant others. It is also viewed as the support that is attainable or achievable for an individual through his relationships with other individuals and groups (Cohen, Underwood, & Gottlieb, 2000).

An important distinction, explained by Wills and Shinar (2000), needs to be addressed between the received social support and perceived social support as the kind which is considered present and which is actually provided to the individual. Uchino (2009) also defined this distinction between perceived and received social support.

Perceived social support is defined as an individual's prospective (probable) approach to social support and is more related to interpersonal (within the person) approach. While the received social support is defined as the support reported by the individual after utilization of support resources and is more closely linked to interpersonal approach i.e. it is between two individuals.

A long debate went to explain which type of support is more important for the individual. With reference to health behaviors, Cohen and Wills (1985) found that the perceived social support is more effective than the actual/received social support because they thought that if the existing resources, of support, are not perceived by the individual they cannot be used effectively. And this point has been confirmed by many researches that the perceived social support is more powerful than the actual support provided to the person (Feldman, Dunkel-Schetter, Sandman, & SzWadhwa, 2000). Thus both the types of social support have their own significance and place in an individual's life.

The role of perceived social support has been extensively studied in relation to physical and psychological health as the studies on depression, happiness and life satisfaction have found that emotional component of social support is more beneficial as in this a person feels to be loved and accepted by others (Walen & Lachman, 2000). Also, the researchers have explored that the perceived social support increases one's physical as well as psychological health as the findings show that the large and effective social networks hinder one's risk taking behavior and prevent the individual from negative considerations (Ozbay, Johnson, & Southwick, 2007). Also a number of researchers have pointed out that perceived social support is considered to be the most crucial and effective constituent in building confidence and bringing out positive academic results in the receiving individuals (Gillard, 2011).

There are four determinants of perceived social support. These are demographic variables (like age, gender, socioeconomic status etc.), social involvement properties of a person, attribute of one's social network and the personality characteristics of a person. Almost all researches on these variables have been carried out in western cultures (Cornman, Goldman, Weinstein, & Lin, 2001).

In today's time period many hospitals runs on the rule of business and treats the patients as a customer's where time efficiency, service delivery is much more important so that customers do not compliant and reputation of hospitals goes well, this kind of work method deals less with emotions, their main focus is adopting the such business rules which could be better for the wellbeing of people and standard of hospitals. In such an environment the nursing staff is often required to be efficient in time management, creating added pressure in their profession. Nursing field is itself a stressful and demanding field which deals with many levels of human sufferings and changes in managerial approach effect nurses work attitudes and emotions (Gountas & Gountas, 2016).

Types of Social Support

Social support, for the purpose of this study, includes the various aspects available to a person, ranging in types. Social support has been seen to be effective only when it is provided appropriately according to the characteristics of the receiver and the demands of the situation (Stice, Ragan, & Randall, 2004). This shows that social support varies in its forms. Cohen et al. (2000) identified three main categories of social support: emotional support, informational support and tangible/instrumental support (Israel, Farquhar, Schultz, James, & Parker, 2002).

Emotional support. Emotional support is being defined as the support which is provided to the person in form of love and care, giving a sense of acceptance and warmth to the person receiving it. It increases the self-worth of the receiver.

Informational support. It is the support provided to the person in the form of informational assistance, by providing facts or particular details about any event or thing, needed to the person in the time of need. It is helpful for the person in certain situations as its nature is to practically solve the individual's problems. It can also be provided in the form of feedbacks.

Tangible/Instrumental support. It is the support in which practical assistance is provided to the person. In this the person receives the practical help; the other person

does the work for him and the receiver gets the work done by the supporter Cohen, Underwood and Gottlieb (2000).

Esteem support. Some researchers also explain this type of support which is shown in the form of encouragement and confidence by the therapists. Therapists offer this type of support as its purpose is to give information, to the clients, in the form of recognition and feedback. This support can also be provided by the family, friends and coworkers (Barnett, 2007).

It has been noticed that the type of social support depends on the receiving individual. The ideal source of social support varies with the developmental stage of the individual. As, for example, in the early adolescence parental support seems to be more effective source of perceived social support than in the late adolescence of the individual (Stice, Ragan, & Randall, 2004). Also, the perception about the social support is linked with the degree of one's social interactions and it varies with age, as the instrumental support is more important for younger adults then the elder ones for whom emotional support seems to be more important (Stone et al., 1999).

Furthermore, theoretical models explain two basic aspects of perceived social support. These are: The structural aspect which includes one's social circle size and the number of social interactions a person has. The second aspect is functional one which includes two components: an emotional component i.e. being loved and understood by others, and the other instrumental component, in which a person receives practical assistance such as money, getting work done by others, and etc (Charney, 2004). Although, both the aspects are important for a person but most of the researches show that the functional aspect (emotional and instrumental components) is more effective indicator of better health than the structural aspect i.e. the quantity of relationships (Southwick, Vythilingam, & Charney, 2005).

Sources of Social Support

Family. The following can be explained as social support that depends upon an interpersonal network, in a way in which one feels that his or her required level of support is being met through those interpersonal interactions (Caplan, 1974; Procidano,

1983). Furthermore, it is composed of various interactions with other people, wherein individual assertion, emotional support, feedback through information and evaluation of the situation is all provided (House, 1981; Vaux, 1988). Studies have also found social support to be defined as an individual's own perception of having support from people they consider to be vital to their social network, for e.g. family, instead of just actions carried out (Dunkel-Schetter & Bennett, 1990; Lakey & Cassady, 1990; Lakey & Drew, 1997; Sarason, Sarason, & Pierce, 1990).

Friends. The interpersonal networks that consist of transactions with peers that provide the recipient with emotional or tangible support. (House, 1981; Vaux, 1988).

Significant other. Support by significant other might be defined as the extent to which a person receives high level of warmth, encouragement, and assistance in interactions with the partner. This definition is consistent with the definition of social support used in studies concerned with stress and coping. (Cohen & Wills, 1985; House, 1981)

Theoretical Perspective about Perceived Social Support

There are number of theories on perceived social support. Each theory explains a different perspective and explains how social support is linked to so many other variables. The current study explores social support as related to buffering hypothesis in the stress and perceived social support theory.

Stress and perceived social support. There has been great research which shows how the stress and perceived social support are related to each other. The two major perspectives highlighting the relationship between stress and social support are the buffering hypothesis and the main effect hypothesis.

Buffering hypothesis. This is one of the hypotheses which show the importance if perceived social support in an individual's life. According to this hypothesis social support acts to protects the individual from the negative consequences only when he faces any stressful situation. Its basic emphasis is that social support will be supportive for the individual only when he is facing any crises or is experiencing any stressful event.

That is why it is known as the "buffering hypothesis" because it proposes that the social support acts or buffers the individual from the harmful consequences of the stressful situation (Cohen, Underwood, & Gottlieb, 2000).

This hypothesis suggests that stress arises when a person considers himself unable to respond appropriately to the stressor. Stress arises when a situation or something is assessed as stressful and important to be responded but the individual finds himself incapable to cope with the stressor. Here the social support helps the individual, firstly, by attuning the way he assess the situation or attend to the stressor i.e. it helps the individual to perceive the stressor differently. Secondly, the social support plays its role in influencing the individual's response to the stressful event. Here the social support can act in different ways e.g. it helps the individual by offering a solution to a problem or by reducing the perceived importance of the stressor to the individual. Thus the person becomes better able to cope effectively (Cohen & Wills, 1985; Roth, 2004).

Main effect hypothesis. According to main effect hypothesis, social support is helpful for the individual regardless of his current situation i.e. whether he is in stressful situation or not, social support will act to play its positive role in the individual's life (Cohen & Wills, 1985). This hypothesis has the view that having larger social networks help a person to experience more positive feelings and get more positive feedbacks that ultimately prevent the individual from falling into the negative experiences or feelings. This view has the major emphasis on the social support as the element of overall well-being in the individual's life as it gives a feeling of recognition, acceptance and self-importance to the individual (Roth, 2004).

Other theoretical perspectives on social support include stress and coping, as well as social-cognitive theory. These are explained as follows:

Stress and coping perspectives. One of the perspectives related to perceived social support comes from the stress and coping theory (Cohen & Lakey, 2000). According to this theory, stress occurs due to one's negative interpretation or the events and this negative interpretation leads to stress which becomes a major cause of many health related problems. This theory suggests that the perceived social support acts as a

supportive agent for the individual in conditions when he is facing extreme stress and is unable to respond or react appropriately according to the demands of the situation. The theory proposes that stressful conditions start a chain of negative feelings which greatly affects one's health condition, but this condition can be revert back by providing social support to the individual (Folkman & Moskowitz, 2004). Hence social support acts to prevent the individual from the adverse effects of the stress, i.e it has buffering effects (Cohen & Wills, 1965). This theory Further suggests that the social support needs to be given to the individual in a manner that it should act to modify one's health condition, enhances his coping abilities and make him better able to deal with stress according to the demands of the situation. Thus the theory gives an "optimal matching hypothesis" i.e the social support provided to the individual should match the demands of the situation (Cohen & Hoberman, 1985; Cutrona Russell, 1990)

Stress and coping model suggests that perceived social support is dependent on different factors like social integration, perceived support by the individual and enacted support role; these all play different and important roles in one's life. Thus the previous researches suggest that if one has effective social ties it increases one's chances of getting more social support (Uchino, 2009). Similarly, it is observed that the individual's perception about the support he is getting greatly affects his response towards stressor.

Social-cognitive perspective. The following perspective emphasizes the important role of social integration in an individual's life. The model basically explains the link between the perceived social support and mental as well as the physical health of the individual. This model emphasizes the role that is played by negative emotions in making an individual tense effortlessly (Lakey & Drew, 1997). The social cognitive perspective suggests that negative emotions, negative self-evaluations and evaluations about significant others, all are linked in a cognitive framework of the individual (Baldwin, 1992). This model suggests that people usually evaluate themselves and others negatively, because negative thoughts come to mind more easily, they are easily accessible and that is why such negative emotions are felt more often by the individual. This model suggests that only the negative life events do not make the individual more negative but the pessimistic thinking of the individual is adequate alone to make one feel

negative emotions excessively. So this model emphasizes that if there will be social support available to the individual then it will make the negative thoughts less accessible to the individual and will make him experience the positive emotions as well.

Empathy

According to Hoffman (1984) empathy can be defined as being mentally aware of another individual's state of mind which may include thoughts, purposes, emotions and perceptions and being able to identify the thoughts and feelings of another person and being able to respond to them with proper affect (Baron & Cohen, 2011).

Empathy can be shown to be made up of two major components, one of which is the cognitive component and the other one is affective component (Lawrence, Shaw, Baker, Baron-Cohen, & David, 2004). Cognitive empathy is being able to know about the thoughts and perceptions of the other individual whereas affective empathy is being able to experience similar emotions as another individual may be experiencing (Lawrence et al., 2004). Empathy has been shown to significantly affect health socially and emotionally in many cultures (Cassels, Chan, Chung, & Birch, 2010). It has also been shown to relate to pro-social behavior and to altruism (Carlo, Hausmann, Christiansen, & Ranball, 2003). In addition, it may well in habit aggressive attitudes and behaviors among anti-social individuals (Baron-Cohen, 2011; LeSure-Lester, 2000). More empathy has also been associated with better management of emotions, both of which result in having more successful relationships with others (Eisenberg, Miller, & Shell, 1991).

Dimensions of Empathy

For an individual to feel empathy, three dimensions have been considered important, which combined allows the person to truly emphasize with another (Dunne & Ng, 1994). These dimensions can be viewed as different stages or levels of empathy, which allow an individual to be truly empathetic only when wholly combined. The three dimensions are as follows:

Perspective taking. At this level, the individual is able to understand the point of views of others besides his own. However, for this to happen, the person shouldn't be rash at judging the other. It is important to keep aside one's own opinions and points of view for the time duration and to give consideration to the other individual's views in the situation. This is also known as the cognitive aspect of empathy (Dunne & Ng, 1994).

Emotional dimension. In this, the person is able to experience the feelings and effect of the other individual which may not include positive emotions such as happiness and joy but will also include the negative ones, such as sadness and anger (Dunne & Ng, 1994).

Concern. A person can be able to truly empathize when they are also concerned for the welfare of the others. This is highlighted by the person being genuine in their worry for another's well-being, due to which they may carry out certain behaviors in order to secure the welfare (Dunne & Ng, 1994). When the first two dimensions of empathy are taken in combination, then the person may be empathetic in the sense of involving themselves to experience the perceptions of the other person, which may be compared to actually immersing and becoming the person themselves for the time being.

Components of Empathy

The current study attempts to explore the overall variable of empathy, encompassing the various dimensions and components. While the dimensions explained the different levels at which an individual may empathize, the components consist of the factors that make up the emotional feeling of empathy.

Empathy may include various features of the individual, but some may be indicative of the presence of empathy as compared to others. Caruso and Mayer (1998) gave six features of empathy that explain the empathy of an individual at the emotional level. These are suffering, positive sharing, responsive crying, emotional attention, feel for others and emotional contagion.

Suffering. Suffering can be defined as feeling sad and worried by witnessing others' pain (Caruso & Mayer, 1998). It has been shown that development of empathy for fellow humans will result in a generalized sense of worry and feelings for all creatures

that may be in pain (Thompson & Gullone, 2003). Although the person may be affected by others' pain, they may not be always able to help out the one in distress. Having a feeling of suffering has also been shown to reduce aggressive behaviors (Flynn, 1999). People high in empathy may suffer when seeing a person or animal injured or being treated unjustly or even when simply hearing about it on television or from others (Caruso & Mayer, 1998).

Positive sharing. It can be seen as being able to experience positive emotions such as joy and happiness of others. People may feel happy when they see others laughing and feel like smiling themselves and they may get joy from seeing others being helped (Caruso & Mayer, 1998).

Responsive Crying. Empathy doesn't only include taking the other person's perspective but also includes responding in an appropriate way. Responsive crying is being able to respond in emotionally appropriate way to the distressing events in others' lives (Caruso &, Mayer, 1998). It is closely related to the suffering aspect of empathy, as a Person can't respond unless they can feel the pain of the others and acknowledge it. A person may show empathy by crying in response to another person s grief, which may he real or imagined such as in books or on television (Caruso & Mayer, 1998). In order to empathize, a person needs to pay attention to how others manifest their emotions (Caruso & Mayer, 1998). People low in emotional attention does not give much thought to others' feelings, such as when they are grieving or happy. Additionally, they themselves may not be able to feel those emotions to a greater extent.

Feel for others. It includes the ability to let oneself be affected by the emotions that the other person may be experiencing (Caruso & Mayer, 1998). The person may in a way reciprocate the other person's emotions by feeling likewise, such as feeling sad or happy when the other person is sad or happy. Likewise, it depends on the staff in some places such approach goes well and staff becomes happy to fulfill their tasks on time but at some places nurses feel distant from the patients and it affects their work. Some studies supports the importance of these conditions like higher job performance and customer orientations which gives a results in the form of most favorable organizational and social culture. Nursing is such fields which cannot work in isolation it needs support of

coworkers and other senior and relevant people who can affect their work that's why these factors are very important and cannot be ignored. However, it is also said that individuals are different with respect to their dealings mental, social and educational backgrounds that is why their ability to deal with customers /patients are different which means high level of customer orientation does not depend on completely on organizational culture and support. For example stressful emotions experienced during work may cause negative effects that are making worse, when nurses lack appropriate work support, which may be described as emotional stress cause negative effects on the job satisfactions/job performance and customer orientations (Gountas & Gountas, 2016).

Emotional contagion. Certain individuals are sensitive to others' emotions by actually inducing those emotions within themselves. This is somewhat similar to feeling for others, but in emotional contagion, the person actually does what the other person may be doing. In a group of laughing people, the person high on emotional contagion will also join in. It will be same for situations in which people are crying due to some grief or when there is some excitement going on (Caruso & Mayer, 1998).

Empathy and Sympathy; Similar yet Different

When it comes to empathy, it is often confused with sympathy, with some individuals even considering the two terms to be similar which, however, they are not as they are concepts different in two major ways. The first major way in which they differ is the extent to which the person can personalize the current situation that the other individual is experiencing. In sympathy, even though the person is able to feel for the other's distressful situation, however, they may not be able to actually imagine the situation themselves. In contrast, empathy is shown by the individual mentally picturing themselves in the situation of the other, thereby being able to take completely the perspective of the other person. Hence, it can be said that for individuals who sympathize, the problem is always in reality of the other person, whether it be pain or sadness or any distress whereas for those who empathize, the situation that the other person may be experiencing becomes their own, even if it is just temporarily (Adler & Rodman, 2006).

Emotional symptoms of compassion fatigue. Symptoms relating to emotions can also indicate compassion fatigue. Such symptoms include mood swings, restlessness, irritability, oversensitivity, anxiety, depression, anger, resentment, a loss of objectivity, memory issues, poor concentration, little focus, erroneous judgment and excessive use of substances such as nicotine, alcohol, illicit drugs.

Physical symptoms of compassion fatigue. Compassion fatigue also includes symptoms that manifest in physical form, such as headaches, digestive problems including diarrhea, constipation, muscle tension, sleep disturbances such as an inability to sleep, insomnia, or sleeping too much, fatigue or cardiac symptoms such as chest pain/pressure, palpitations, tachycardia.

Theoretical Perspective about Compassion Fatigue

The current study explores the third study variable in relation to the model of compassion fatigue as presented by Figley (2002). Figley presented a ten-component theoretical model to explain the reasons behind compassion fatigue, and also revealed strategies for its solution and management. His model is based on two basic grounds: First, that empathy is a necessary condition for creating the kind of remedial relationship needed for efficient performance. Second, that empathy makes an individual in a profession vulnerable to the burden that come with compassion and concern (Figley, 1996).

The ten components of compassion fatigue, as described by Figley, are:

Exposure to suffering/exposure to client. Figley believes that Exposure directly from the client also involves caregiver towards the suffering.

Empathic ability. Empathic ability refers to one's capacity for sensing the pain of others. Empathy is needed in order to help others, but it makes one vulnerable to the costs of caring.

Empathic concern. Empathic concern pertains to a caregiver's motivation to respond to people in need. Empathic concern will motivate a caregiver to use her or his talent, training, and knowledge to deliver the highest quality of services possible.

Empathic response. While a caregiver puts herself into the position of client, she might experience her pain and fear, emotions, feelings and thoughts.

Residual compassion stress. Residual compassion stress is the leftover energy from compassion, resulting from the continuous need to reduce the suffering of the patient. When the leftover emotions are high in intensity and not adequately resolved, this may bring damage to the health and quality of life of the caregiver.

Sense of achievement/sense of satisfaction. This part refers to the extent to which caregivers feel pleased about their efforts to help patients. Caregiver contentment serves as a coping strategy that can decrease or prevent residual compassion stress. If labors to attain a sense of contentment fail to alleviate residual compassion stress, then the caregiver is at a greater risk for compassion fatigue.

Disengagement/detachment. This component refers to the extent to which caregivers preserve fine limitations and therefore have the capability to detach themselves from client suffering. This component also involves a conscious effort to let go of thoughts, feelings, and sensations associated with patients. Such disengagement comprises a coping device that relieves the leftover compassion stress.

Prolonged exposure/prolonged exposure to suffering. An individual treating other for prolonged period may also become vulnerable to suffering due to prolonged periods of services.

Traumatic recollections/ traumatic memories. Caregiver memories of past experiences with clients or personal traumatic events can trigger symptoms such as depression and anxiety. Traumatic memories pose risks for compassion fatigue.

Degree of life disruption/other life demand. Every caregiver encounters unanticipated events in her or his life that necessitates consideration. In average conditions, such unforeseen events may lead to high levels of distress, but when added to the additional components in the model; they amplify the likelihood of compassion fatigue.

Vicarious traumatization and compassion fatigue. Vicarious traumatization is a growing progression that leads to alterations in therapists' experiences of self, others, and the world. Both vicarious traumatization and compassion fatigue have been associated to traumatic experiences, but compassion fatigue is distinctive because experience with even a single patient's distress can be severe enough to prompt symptoms, while vicarious traumatization increases over time and may cause potentially lasting changes in the therapists' perspectives on life.

Relationship between study variables

The present study has shown literary analysis and previous research conducted by scholars and researchers on perceived social support, empathy and compassion fatigue among Nurses. In addition, the topic will be analyzed in accordance to the relationship of these three variables. The literature review consists of research and exploration by previous scholars who have provided their insight on the issue. Let us discuss the views of intellectuals and researchers.

Perceived social support and compassion fatigue. Social support has been found to play a fundamental role in explaining an individual's response to a traumatic experience (Keidel, 2002). For this reason, it can be said that social support may play a significant part in lowering levels of compassion fatigue among nurses. According to theoretical models, health is largely influenced by social support, through both direct and indirect ways. The direct effect that social support has been found to have on health may be evaluated through different perspectives, such as social or physiological (Fiske, 1998). Social support, within the context of the direct effect, may be seen as a basic human requirement, a necessity wanted for attachment and relationships (Bradley & Cartwrigh, 2002). Further through the lens of the direct effect, social support has been found to positively influence the immune system (Argyle, 1992).

On the other hand, the indirect effect conceptualizes social support in terms of a conditioning variable which affects the association between health and various stressors (Bradley & Cartwrigh, 2002). As such, it may be suggested the negative influence of stressors is indirectly reduced by social support, which in turn may help in stabilizing the

mental and physical health of nurses who have been through distressing situations themselves, for e.g. dealing with patients who are fighting death. In this way, compassion fatigue and burnout among nurses can be indirectly reduced by added social support.

The low level of manager support was a significant predictor of higher levels of burnout and compassion fatigue among emergency department nurses (Hunsaker, Chen, Maughan & Halt Heaston, 2015). Researches prove similar results for oncology nurses as the supportive and healthy work environment reduce compassion fatigue (Wu, Singh-Carlson, Odell, Reynolds, & Su, 2016). Another research on Iranian nurses showed that perceived social support is negatively correlated with compassion fatigue (Ariapooran, 2014). Similar results were found focusing on family and supervisory support. (Galek , Flannelly, Greene & Kudler, 2011). Also, lower BO scores were reported in people who experienced more social support (Soleimani, 2010).Besides, this result is consistent with previous studies in Iran which indicated that social support was negatively correlated to burnout support of head nurse, familial and spousal support were negatively associated with emotional exhaustion in nurses (Sahebazzamani, Safavi, & Farahani, 2009).

Grant and Kinman (2014) explained that several studies shows healthcare works have higher level of work related stress and burnout then many other occupational groups. Moreover secondary trauma and compassion fatigue are commonly found amongst helping healthcare giver like nurses. This demographical difference suggests that the environmental differences are linked with empathy, perceived social support and compassion fatigue. Work related stress has a negative effect on their work and cause of their physical illness. Many nurses leave their job because of work related stress. The need to address the sources of stress in healthcare also highlighted in order to tackle a shortfall in recruitment and retention. Moreover, high level of work related stress and burnout found in trainees as well as trained professional's staff and they cannot enjoy their work. In addition, there psychological well-being and the process of reflection have been found to help nurses and midwives to tackle the intractable difficulties and compassion fatigue. The study suggests that there is a need to focus on mindfulness and compassion enhancing programs to cope these problems such as compassion fatigue and burnout.

Adriaenssens, De Gucht and Maes (2015) stresses in their article regarding the occupational stress that nurses face. The article is related to the burden and stress on nurses in the emergency situations. In addition, the article demonstrates that the condition of the nurses in stressful condition is different from the conditions of the nurses working in normal condition. As there demographics are changed, their ability to work also varies. Furthermore, the nurses working in stressful condition requires more attention and social support from the managers and family.

Empathy and compassion fatigue. The study by Hojat (2016) revolves around Empathy its real meanings and impact on patients. Moreover, the significant features between empathy and sympathy are discussed in the following article. Additionally, the definition of empathy taken from the World Health Organization's (WHO) definition of health consist with the respect of paradigm of illness. Furthermore, Empathy is considered as cognitive attribute that involves an understanding of patients experience, concerns and perspectives. Due to cognitive nature empathic term is always beneficial in the context of patient care, whereas excessive empathetic involvement because of its effective nature leading to exhaustion and burnout. In the context of patient care, empathy relates to patient and health provider together.

Johnstone et al. (2016) conducted a research based on empathic stress, burnout effects among nurses. Research and data indicates that how empathic stress, burnout effects the professional life of care provider and their personal life are affected. When providers care cannot able to keep balance among compassion for itself and for patients it leads to stress that effects his/her professional lifework performance, personal life and even his/her own health. To investigate the relationship among occupational stress and burn out in genetic counselor an online survey has been conducted. The results indicated that most of them left their jobs due to stress and exhaustion

Various authors (Figley 2002; Joinson 1992; Skovholt 2001) theorize that feeling another person's pain and suffering creates compassion stress. Moreover, repeated empathic engagement with distressed patients in a cycle of caring (empathic attachment, active involvement, and felt separation) may place caregivers such as nurses at risk of experiencing compassion fatigue (Joinson 1992; Skovholt 2001). The caregiver does not

physically experience the traumatic event but does experience the event emotionally by caring for the patient which ultimately leads to compassion fatigue (Sabo, 2006).

Empathy is commonly understood as a critical factor in providing effective support, but it has also been considered a primary path of vulnerability to developing stress disorders secondary to the profession, such as compassion fatigue and professional emotional exhaustion (Rothschild, 2006). People with a higher score on dimensions such as empathic concern tend to greater development of compassion fatigue and burnout (William, 1989).

Perceived social support and empathy. High levels of empathy have been found to be positively related to sensitivity (Campbell, Kagan, & Krathwohl, 1971). This indicates that the higher that levels of empathy are, so will be the level of sensitivity.

Furthemore, sensitivity has been found to predict pessimism among individuals (Meyer & Carver, 2000). Pessimism, in turn, causes one to experience low levels of perceived social support, a finding that is supported by the idea that high levels of social support is positively related to high levels of optimism (Sarason, Levine, Basham, & Sarason, 1983).

A study by Cheadle, Egner, Wyart, Wu, & Summerfield (2015) explains the relationship between sensitivity and expectations. According to this study the increase in expectations leads to sensitivity, which means sensitivity is positively related to expectation.

Another study by Altay, Kilicarslan, Sarı, & Kisecik, (2014) on the mothers of cancer patients revealed that higher the expectations are, lesser will be the perception of support. This indicates a negative relationship between expectations and perceived social support.

As empathy is directly related to sensitivity and sensitivity seems to predict expectations (Cheadle et al., 2014), whereas expectations are negatively associated with perceived social support (Altay et al., 2014), we can say that there is a negative association that exist between empathy and perceived social support.

Relationship of variables among nurses. According to Zapf, Seifert, Schumutte, Mertini, and Holz (2001) the emotional nurse's investment may be seen as a principle factor predicting burnout among common job stressors.

Professional nursing practice thrives within the context of a caring, empathetic relationship between nurse and patient. However, this necessary empathetic relationship contributes to compassion fatigue if conscious steps are not taken to avoid and/or lessen this condition (Lambardo & Eyre, 2011). Similarly researches show that imbalanced clinical distance and empathetic concern leads to the development of compassion fatigue. (Gleichgerrcht & Decety, 2013). High level of affective empathy is a risk factor for compassion fatigue (Duarte, Gouveia, & Cruz, 2006).

Duarte et al. (2016) state that job stress and burnout is common among health care professionals specially nurses. Because of heavy workload, they are confronted with emotional and physical problems such as compassion fatigue and empathy. The main purpose of their work was to determine whether empathy and fatigue is related to the professional life. Nurses encounter various injuries and sufferings on daily bases in this case being over sensitive they may lead to compassion fatigue. Study shows personal judgments whether positive or negative may associated with burnout. Study suggests that training of empathy to nurses may avoid the compassion fatigue (Duarte et al., 2016). Such trainings also have positive effect on professional well-being and patient health outcomes. Moreover, studies show such mindfulness courses are very helpful for self-compassion among nurses that reduce burnout in nurses. As a result they are more content and more competent in their work.

Denigris, Fisher, Maley, and Nolan (2016) conducted a study at a large urban hospital in Pennsylvania. The participants used descriptive mixed-method study which included using questionnaires and in depth interviews. This study indicated over all nurses' experienced positive reinforcement at work and they had little concern about individuals or organizational effectiveness. Positive experiences offset the negative and balance out the risk of compassion fatigue.

As the Nurses have long ago history of facing the problems of patients but there is less research and focuses on the reactions of nurses in the form of stress or their own deaths after facing any death or such trauma (Boyle, 2011). Here in this article writer's focus is on the sufferings of nursing department and methods how it can be minimized such traumatic events at clinical work places. Problem of compassion fatigue escalated due to lack of basic communication skills. The methods to minimized fatigue are encouraging self-care strategies, attention from managers, educators, researchers and nurses themselves, teaching effecting self-soothing, teaching video-dialog techniques for internal conflict resolution and self-supervision, identify, understand, and develop a hierarchy of what triggers symptoms of compassion fatigue, review present methods for addressing difficulties in practice, develop caregiver plans for self-treatment. These methods and techniques can be applied in every hospital which can produce positive results (Boyle, 2011).

Figley (2003) highlighted the importance of compassion, empathy, their positive and negative effects on the patients and on the caretakers themselves and also focused on the ways how to keep balance among these demands so that both groups can get benefit from these factors instead of being suffered. As compassion has strong positive effects on the well beings of patients and it is demand of nursing profession but it has some drawbacks like it can put nurses in the fatigue and compassion burn out so there is need to keep balance by (creating intervention at an early stage in nursing education, emotional curriculum that would give clinic knowledge and skills, creating strong supportive working culture and social support). All these factors can help the nurses to manage their stress and can be compassionate and show empathy with patients (Figley, 2003).

Raab (2014) illustrated in the article that nurses are known to bear suffering of others. His research stated that they work in emotionally exhausted environment. Furthermore, the writer stresses upon the fact that compassion fatigue among nurses associated with less effective care delivery. Self-compassion includes self-kindness and common humanity and mindfulness. That helps the healthcare workers to reduce the stress and more effectiveness of clinical care. If any of healthcare worker going through the compassion fatigue he reduces the work attention, decision making, and

communication as well as suffer various health problems like fatigue, insomnia, and depression. These observations points to examine the stress in healthcare fields. Mindfulness courses taught in the healthcare workers to reduce stress and promoting well-being among healthcare workers. Self-compassion and mindfulness is very helpful to reduce compassion fatigue to help others with healthy minds. This study revolves around the deficiencies regarding treating the nursing issues which is caused by over work and be more compassionate and empathetic. As it has been proved that compassion, empathy are the core values in the nursing field but many researches also have presented many strategies which can deal the nurses issues so that they themselves do not get effected but writer highlights some deficiencies in previous mentioned methods. It said that there is need for more compassion in health care is professed from National Government to frontline practitioners. Greater conceptual clarity better designed and reported interventions and evaluations using stronger research designs are urgently required (Blomberg et al., 2016).

Gountas and Gountas (2016) research was based on organizational culture and its effect on customer orientation or emotional states and their effects on job satisfactions and well beings. The study revolves around the support of coworkers, supervisors and their effect on the performance of nurses and then what could be impact of such environment on the customers/patients and overall performance of hospitals. Moreover, these factors are complex to achieve the well beings of individuals and better performance of organization. Many organizations stresses on such elements because they went through on hard time to build-up the organization but the importance of empathy and their relationship with performance of nurses and their impact on the patience/customers cannot be denied. According to Duarte, Pinto-Gouveia, and Cruz (2016) every department of medical care is essential but whereas the topic of Nurses department, it is said and proved that it requires more responsibility and job stress due to its direct and more relationship with the patients, they remains more in the relationship with the patients in the comparison of doctors and even every other caretaker. Their profession is much harder and requires above mentioned elements but there are some drawbacks like job stress and burn out.

As nurses deals with heavy work load, lack of resources there they also deal with the emotionally intense situations which can associated with illness and sufferings. Whereas the relation of empathy with the caretakers, it is the core factor and correlated, if empathy exist then nurses can deal with fatigue and illness disorders but lack of this factor indulge themselves into problems. Moreover, keeping balance requires in every field of life if we want everything goes well around us, here keeping balance is highly essential because if there is lack of empathy factor then nurses cannot take care of patients and if more empathy factor exist than its requirement then nurses would feel fatigue, burnout and ill how they would care takers when they themselves cannot control themselves that's why balance is essential.

Relationship between Study Variables and Demographic Variables

The section will substantiate the demographical differences like age, marital status, gender, emergency and other inpatient specialties, educational level, income and socioeconomic status and their effects on Empathy, Perceived Social Support and Compassion Fatigue among nurses. Scholars are of the view that demographical distinctions effects the three variables we defined due to the changes circumstances, environment, education level, social economic structure and many other related reasons.

Age and job experience. The term compassion fatigue was first introduced in the early 1990's to describe a situation, feelings or experienced helplessness and anger to take care of patients who go through devastating illness or trauma (Kolthoff & Hickman, 2016). Professional burnout is related construct that results from a work environment that makes it difficult to achieve work goals and do one's job effectively. In contrast, compassion satisfaction is about the enjoyment a nurse derives from being able to do his/her work well. Initially this concept was related to nursing field only but later studies show that other field workers also experience compassion, fatigue and work burnout such as forensic nurses, licensed social workers, nurses engaged in emergency departments, psychologist etc. A research was being conducted in geriatric nursing on following pattern: nurses caring for high needs older adults and gap between professional experience, fresh nurses and experienced nurses. Findings showed that nurses who worked on the geriatric medicine unit for less than one year were identified as

inexperienced, facing more compassion fatigue as compared to nurses who were more experienced. The results show that age and experience demographic effects the three variables. This difference also had a huge impact on work burnout and compassion satisfaction. These findings suggest the need to purposely build a supportive environment that prevents professional burnout and fatigue, and sustains compassion satisfaction. Policies and values should be introduced and implemented in departments. This would ensure balance between personal and professional life, thereby scheduling other self and development activities. Organization should provide preventive and proactive support instead of reactive support in response to difficult cases of crises. Similarly, nurses have the responsibility to intervene, support and help each other in recognizing and addressing the signs and symptoms of burnout and compassion fatigue (Kolthoff & Hickman, 2016).

Gender. A research conducted by Sprang, Clark and Whitt-Woosley (2007) is based on the demographical factors that affect the nurses. The research was based on rural and urban nurses and their differentiation in compassion fatigue and empathy towards patients. The results indicated that urban nurses have more burnout and compassion fatigue as compared to their counterparts in rural areas. Similarly, the research was two folded and it also showed the difference in results in male and female nurses. The demographical effect of gender indicates that female nurses have higher burnout and compassion fatigue than their male counterparts.

There are varying results of the researches related to sex and perceived social support. There are different findings of the researches conducted on these variables as one study shows that men perceive more social support as compared to women. Apart from this, some researches also show that females perceive social support to be less satisfactory. Whereas some say that there are no gender differences in the perception of support (Cornman, Goldman, Weinstein, & Lin, 2001). This perceived social support, in return has been found to have significant positive effects on the health as one of the research shows its link to lower mortality rate also. As the perceived social support increases it leads to decrease in the mortality rate apart from other demographic factors (Uchino, 2000).

Medical departments. Hooper et al. (2010) depicts the demographical changes that affect the nurses and their ability to perform their duties. The article differentiates the compassion fatigue, burnout and compassion satisfaction amongst the nurses working in emergency departments and nurses working in selected inpatient specialties. In this regard, a questionnaire was formed and different nurses from different departments were surveyed accordingly. The results indicates that compassion fatigue, burnout and compassion satisfaction among the emergency staff nurses were different from the other selected departments.

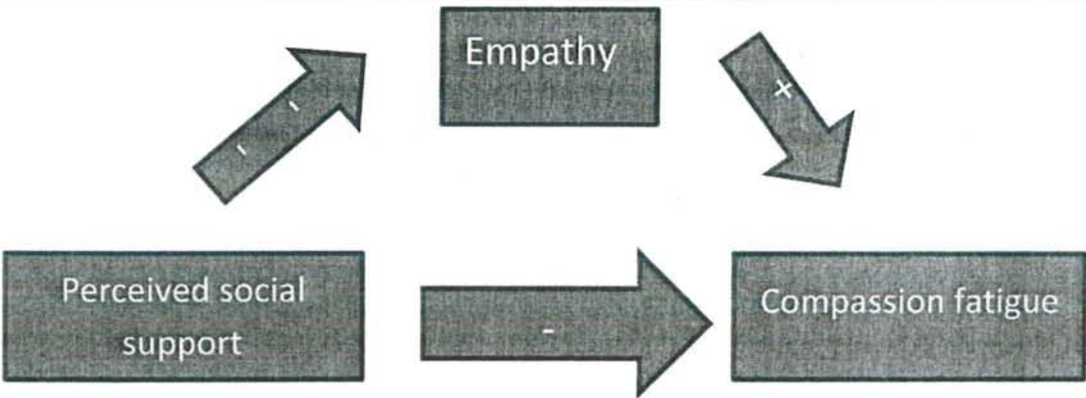
A research conducted by Ariapooran (2014) was based on Iranian nurses specifically. In this research the examiner aims to find out the Compassion Fatigue and Burnout among nurses in Iran. In this regard, 173 participants from the Iranian hospital were selected. The results show that there was a negative correlation between social support from family and compassion fatigue. The results indicated that burn out and compassion fatigue among the nurses in emergency is higher than other nurses. This is also is an indication that demographical structure and environment where the nurses work, effects on their condition and mental ability to perform their duties.

Hunsaker, Chen, Maughan, and Heaston (2015) conducted a two-fold research similar to the research by Hooper et al. (2010). They endeavor to seek the results of nurses working in emergency department and compared them with the nurses working in normal conditions. There results also indicate that nurses working in emergency departments are greater exposed to compassion fatigue while those nurses working in other normal departments are less exposed to burn out and compassion fatigue. However, they also suggested in their research result that high level of support can also lead to higher compassion satisfaction among nurses. In this regard, they believed that perceived social support can play an important role.

Conceptual Model of the Study

In the light of above literature review and research conducted by various scholars, an argument can be presented that demographical differences effects on empathy, perceived social support and compassion fatigue among nurses. In addition, the literature

by the scholars also presents a picture that the three variables are connected with each other and they cannot be separated. Similarly, the literature also elaborates the need of new developments in the field such as new courses, programs, education regarding compassion fatigue and empathy and effects of demographical characteristics. Furthermore, the study also indicates that the demographical changes effects the conditions of the nurses as the results of every research varies and different in nature. It is also suggested by various scholars that nurses need to find out compassion fatigue and work upon them to eliminate the threat of further increasing compassion fatigue and burnout. Thus, on the basis of previous literature and sample collected during the survey, the research will now tend to move forward to explore new additions in the medical field.



According to this model perceived social support is negatively related to empathy and compassion fatigue i.e. decrease in perceived social support leads to increase in empathy and compassion fatigue and vice versa (Ariapooran, 2014; Ologun & Ibigbami, 2006; Soleimani, 2010). Secondly empathy is positively related to compassion fatigue i.e if empathy increases, it increases compassion fatigue and decrease in empathy leads to decrease in compassion fatigue (Duarte et al, 2016; Hojat, 2016; Lambardo & Eyre, 2011; Johnstone et al., 2016). It also shows that empathy is serving as mediator between perceived social support and compassion fatigue.

Rationale of Research

While many professions require dedication and even some level of emotional involvement, the profession of nursing requires most empathy and compassion as they have to deal with different sort of patients daily. Nurses that have higher level of empathy and are working with traumatic patients are considered most vulnerable to develop secondary traumatic stress or compassion fatigue as it is the psychic cost of empathy. Therefore, for studying the relationship of empathy and compassion fatigue sample of nurses is selected as it will possibly yield good results than any other sample.

In any line of work, the diminishing of productivity and performance is viewed as a giant setback but fields of medicine are perhaps more necessary and of the utmost importance to human life than any other. After all, it is the field of medicine in which nurses and doctors expend their energy, knowledge and skills tirelessly to save lives and improve the health of other human beings. While doctors are often regarded on a higher social status, there is no doubt that the profession of nursing requires relentless compassion and care. Nurses working around the clock, treating patients and catering to their basic health needs no doubt require a certain level of concern for human life.

However, there exist certain drawbacks to caring too much. When empathy levels are high and nurses are emotionally invested in the wellbeing of their patients, they might reach a state of emotional exhaustion which, in better terms, can be described as compassion fatigue. Particularly in distressing cases, it is likely that such empathetic nurses will exhibit signs of distress similar to those displayed by close relatives and loved ones. In such cases, the emotional and psychological suffering experienced by the nurses may hinder their efficiency at their jobs and cause them to become 'fatigued' in this regard.

This research will explore the mediating role of empathy on the relationship of perceived social support and compassion fatigue. It will highlight the importance of social support in life of nurses and will show how much supportive it is for them. Through the analysis of compassion fatigue, nurses with fatigue and those who are at risk can be sorted out and this research will help for taking further steps towards reducing

their fatigue by making the results a part of training of nurses which will help the new staff to deal with the developing factors of compassion fatigue. This effort will help in improving the abilities of healthcare staff for taking good care of patients without disturbing their own lives. This research will open up ways for further researches in this area.

METHOD

METHOD

Objectives

The present study is intended to explore the role of empathy and perceived social support on compassion fatigue among nurses.

1. To see the relationship between empathy, perceived social support and compassion fatigue among nurses.
2. To explore the mediating role of empathy on the relationship between perceived social support and compassion fatigue among nurses.
3. To see demographics (age, gender, marital status, job experience and medical department) related differences on perceived social support, empathy and compassion fatigue among nurses.

Hypotheses

To achieve the above mentioned objectives, the following hypotheses were formulated:

1- Perceived social support is negatively associated with compassion fatigue among nurses.

2- There is positive relationship between empathy and compassion fatigue among nurses.

3- Perceived social support is negatively associated with empathy among nurses.

4- Empathy mediates the relationship between perceived social support and compassion fatigue among nurses.

Definitions of the Variables

The following operational definitions were formulated:

Perceived social support. Social support is defined as an exchange of resources between two individuals, the provider and the recipient, and intended to enhance the well-being of the recipient (Shumaker & Brownell, 1984). In the present research perceived social support was measured by Multidimensional Scale of Perceived Social Support (Zimet et al., 1998).

Empathy. Empathy is an important component of social cognition that contributes to our ability to understand and respond adaptively to others' emotions, succeed in emotional communication, and promote prosocial behavior. (Spreng, 2009).In the present study empathy was measured by Toronto Empathy Questionnaire (Spreng et al., 2009). High score on scale indicates higher level of empathy, whereas low scores indicate lower level of empathy.

Compassion fatigue. Compassion fatigue is the negative aspect of helping those who experience traumatic stress and suffering. (Stamm, 2007).In the present study professional quality of life scale was used to measure the compassion fatigue among nurses. It consists of two subscales that make up compassion fatigue which include burnout and secondary traumatic stress. High scores on these sub-scale of compassion fatigue indicates higher level of compassion fatigue and low scores indicate lower level of compassion fatigue.

Research Design

The present study was cross-sectional correlational research. The data was collected through survey method in which questionnaires were administered on the sample.

Sample

A convenient sample of nurses (*N* = 242) was acquired from different hospitals of Islamabad and Rawalpindi. Sample included both men (*n* = 95) and women (*n* = *147*), with age ranged from 20 to 50 years (*M* = 28.02,*SD* = 4.36). Marital status of employees included single (*n* = 139), married (*n* = 103). Overall job experience ranged from 1 to 22 years (*M* = *4.49, SD* = *3.30*). Lastly medical specialty included nurses of pathology (*n* = 9), emergency (*n* = 52), micro-biology (*n* = 15), psychiatry (*n* = 51), cardiology (*n* = 51), intensive unit (*n* =24) and others (*n* = 40).

Table 1

Descriptive Statistics of the Sample (N = 242)

Variable	*f*	%	Variable	*f*	%
Gender			**Job Experience**		
Male	97	40	Junior	163	68
Female	145	60	Senior	78	32
Age					
Pre-adulthood (17-22)	16	6.6	**Medical Department**		
Early adulthood (23-45)	225	93	Pathology	9	3.7
			Emergency	52	22
Marital status			Microbiology	15	6.2
Single	139	57	Psychiatry	51	21
Married	103	43	Cardiology	51	21
			Intensive Units	24	9.9
			Others	40	17

In table 1 demographic variables have been exhibited by their frequency and percentage. These variables include age that is categorized on the basis of seasons of life theory by Daniel Levinson (1978), gender, marital status, job experience and medical departments of nurses in the present hospital.

Instruments

A brief description of the three scales used to measure the variables in the present study is given below.

Multidimensional Scale of Perceived Social Support. This construct was explored qualitatively in most of the prior studies so by using those qualitative dimensions this multidimensional scale of perceived social support was developed by Zimet et al., 1998 (see Appendix-C). It consisted of 12 items, which were related to different dimensions, items 1,2,5 and 10 depicts the dimension of social support from significant others, items 3,4,8 and 11 depicts social support from family, items 6,7,9 and 12 shows support from friends. Responses were to be rated on 7-point likert scale, ranges from *Very Strongly Disagree* (1) to *Very Strongly Agree* (7). Possible score range on multidimensional scale of perceived social support was 12-96. The cronbach alpha for the total scale was reported as .85 (Zimet et al., 1998). High scores on this scale indicate high level of perceived social support whereas low scores indicate lower level of perceived social support.

Toronto Empathy Questionaire. Toronto empathy questionnaire was developed by Spreng et al. (2009) (see Appendix-D). It has 16 items and no subscales. Responses were to be rated on 5-point likert scale, ranges from *never* (0) to always (4). Possible score range on Toronto empathy questionnaire was 0-64. The cronbach alpha for the total scale was reported as .87 (Spreng et al., 2009). High scores on this scale indicate higher level of empathy, whereas low scores indicate lower level of empathy.

Professional Quality of Life Scale. This survey version of Professional Quality of Life Scale was developed by Figley (1996) and revised by Stamm (2007). This scale consisted of total 30 items, and 3 subscales containing 10 items each, first subscale tends to measure the compassion satisfaction whereas the other two scales of burnout and secondary traumatic stress collectively measures compassion fatigue. Responses were to be rated on 5-point likert scale, ranging from *Never* (1) to *Often* (5). Possible score of Professional Quality of Life Scale range on 30-150. The cronbach alpha for the total scale was reported as .72 (Stamm, 2007). High scores on the subscales of burnout and

secondary traumatic stress indicate higher level of compassion satisfaction and low scores indicate lower level of compassion fatigue.

Procedure

In order to carry out this study multiple visits to different private and public hospitals of Islamabad and Rawalpindi were carried out. Appointments were settled over the call before visiting every hospital. Permission from Administration/ heads of different departments of respective hospitals were required. Some of the hospitals asked about my university and my identity before letting me collect the data from their nurses. Some hospitals even refused to comply with collection of data from their nurses, given the reason of confidentiality and funds for providing the data. The concerned nurses were informed about the whole process verbally. Informed consent acquired from every participant and was made sure that their information will be kept confident. It was also briefed that right to quit giving their information at any time if they feel uncomfortable. Verbal and written instructions were given to the respondents to fill the questionnaires properly and accurately. Questions while filling the questionnaires from the participants were answered right on the spot with simple language in order to give them better understanding of the questions they filled. Data was mostly collected in the tea or lunch breaks because it had more spare time, and this time was chosen so that employees will be relaxed and responses will be genuine. Later they were thanked for their time and support towards the study. After information gathered the data analyzed with various statistical operations.

RESULTS

RESULTS

The aim of the present research was to study the relationship between empathy, perceived social support and compassion fatigue among nurses. After the completion of data collection of 242 nurses, data was entered in SPSS (Statistical Package for Social Science) for quantitative analysis. Descriptive and Inferential statistical analyses were used in this research to analyze the data.

Reliability Estimates and Descriptive Analysis of Measures

The reliability and descriptive statistics was assessed for the empathy, perceived social support its subscales and compassion fatigue and its subscales. The results revealed are presented in the following table.

Table 2

Descriptive Statistics, Alpha Coefficient and Skewness for Empathy, Perceived Social Support and Compassion Fatigue among Nurses (N = 242)

Scales	No. of Items	*α*	*M*	*SD*	Skewness	Kurtosis	Ranges	
							Potential	Actual
PSS	12	.95	43.55	16.54	.94	.04	12-84	15-84
Fri.	4	.95	16.92	6.77	.38	-.58	4-28	4-28
Fam.	4	.97	14.02	6.87	.95	-.86	4-28	4-28
So.	4	.96	12.61	6.47	.63	-.45	4-28	4-28
Emp.	16	.82	40.03	5.15	-.30	1.70	0-64	21-56
CF	20	.75	59.35	9.42	-.61	.28	20-100	32-80
BO	10	.45	26.81	4.65	-.15	.04	10-50	12-39
STS	10	.88	32.54	7.71	-.32	-.58	10-50	13-49

Note. PSS = Perceived Social Support, Fri. = Friends, Fam. = Family, So. = Significant other, Emp. = Empathy, CF = Compassion Fatigue, BO = Burnout, STS = Secondary Traumatic Stress.

Table 2 shows alpha reliability of coefficient values indicated that highest reliability was found on multidimensional scale of perceived social support i.e. .95, and its subscales which include friends with cronbach alpha of .95, family with .97 and significant other with .96. Then cronbach alpha of empathy is .82. For Compassion Fatigue Scale cronbach alpha is .75 followed by its subscales burnout and secondary traumatic stress the value ranges from .45 to .88. Skewness and kurtosis between -1 to +1 and -2 to +3 respectively shows that data is normally distributed.

Mean and standard deviation were computed to determine the general average scores of participants on particular scales used in this study. Scores lie at slightly higher side on the scales of empathy and compassion fatigue whereas the scores on the scale of perceived social support were average. The value of skewness shows the distribution of scores among variables for Empathy, Perceived Social Support and its subscales (Friends, Family, Significant other), Compassion Fatigue and its subscales (Burnout, Secondary traumatic stress).

Relationship between Empathy, Perceived Social Support and Compassion Fatigue

Pearson correlation was computed to evaluate the relationship between perceived social support (family, friends and significant others) empathy, and compassion fatigue (burnout and secondary traumatic stress). Results revealed through analysis are described in the table below.

Table 3

Inter-correlation among Study Variables (N = 241)

Variables	PSS	Fri.	Fam.	So.	Emp	CF	BO	STS
PSS	-	.86**	.83**	.82**	-.72**	-.90**	-.53**	-.78**
Fri.		-	.61**	.58**	-.69**	-.83**	-.49**	-.71**
Fam.			-	.47**	-.57**	-.70**	-.44**	-.59**
So.				-	-.57**	-.73**	-.40**	-.65**
Emp						.79**	.61**	.61**
CF						-	.58**	.87**
BO							-	.11
STS								-

Note. PSS = Perceived Social Support, Fri. = Friends, Fam. = Family, So. = Significant other, Emp. = Empathy, CF = Compassion Fatigue, BO = Burnout, STS = Secondary Traumatic Stress.

Results presented in table 3 showed relationship among perceived social support, empathy, and compassion fatigue. It has been observed that dimensions of perceived social support were significantly positively associated with each other. It has also been observed that dimensions of compassion fatigue were also positively associated with each other. Total scale of perceived social support along with its dimensions is negatively related to compassion fatigue among nurse, which proves that our first hypothesis is correct. Total scale of empathy is positively associated with compassion fatigue and its dimensions showing significantly strong positive relation hence proving our second hypothesis correct. Total scale of perceived social support is negatively associated with empathy proving our third hypothesis correct.

Predictability of study variables

Regression analysis of variable reveals the effect of independent variables i.e. perceived social support and empathy on dependent variable compassion fatigue. Results of analysis are showed in the following table.

Table 4

Multiple Linear Regression analysis showing the effects of Perceived Social Support, Empathy on Compassion Fatigue among Nurses (N = 242)

	Compassion Fatigue Model 2		
		95% CL	
Variables	B	LL	UL
Constant		47.69	64
Age	.043*	-.25	3.50
JE	-.063*	-2.32	-.21
MS	.016	-.81	1.41
Gender	-.088**	-3.29	-.52
MD	.010	-.21	.31
EMP	.309***	.42	.71
MSPSS	-.722***	-4.57	-.36
R^2	.86		
F	204.365***		
ΔF	396.460		

Note. PSS = Perceived Social Support, Fri. = Friends, Fam. = Family, So. = Significant other, Emp. = Empathy, CF = Compassion Fatigue, BO = Burnout, STS = Secondary Traumatic Stress.
*p < .05, **p < 0.01, ***p < .001.

Table 4 depicts the multiple linear regression analysis of the study variables of perceived social support and empathy upon the outcome variable of compassion fatigue. The table shows that all these variables included in the regression model have beta values

with relatively less difference. Beta values indicate the direction of regression, positive beta coefficient means these variables are positively related with compassion fatigue and beta values with negative signs mean these variables predict the compassion fatigue oppositely. the study variables of perceived social support and empathy both have a significant effect ($p < .001$) upon compassion fatigue and, therefore, are significant predictors of compassion fatigue. This finding confirms perceived social support and empathy to be significant, strong predictors of compassion fatigue.

Empathy as a mediator between perceived social support and compassion fatigue

The result of empathy as a mediator is presented in the following table:

Table 5

Criterion Variable	Predictor Variable	*B*	95% CI		*p*
			LL	*UL*	
Direct Effects					
EMP	MSPSS	-.23	-.25	-.19	.000
CF	EMP	.53	.40	.67	.000
CF	MSPSS	-.51	-.54	-.48	.000
Indirect Effect					
CF	MSPSS through EMP	-.39	-.43	-.35	

Note. PSS = Perceived Social Support, Emp. = Empathy, CF = Compassion Fatigue.

Mediation analysis reveals the relationships between variables to be significant in predicting compassion fatigue. As seen in the table, perceived social support is found to directly predict ($p < .001$) perceived social support and compassion fatigue ($p < .001$), negatively. Furthermore, perceived social support indirectly ($p < .001$) predicts compassion fatigue through empathy. This indicates that high levels of perceived social support along with low levels of empathy will lead to a decrease in compassion fatigue.

This finding confirms the third Hypothesis which states that empathy mediates between the relationship of perceived social support and compassion fatigue.

Comparison of Demographic Variables of Empathy, Perceived Social Support, and Compassion Fatigue among Nurses

Different groups were formed on the basis of demographic information of nurses. The groups thus formed were on the basis of gender, age, marital status (single and married), job experience, and medical department (pathology, emergency, microbiology, psychiatry, cardiology, intensive units and others). The differences in these groups were assessed with the help of statistical analysis. T-test was used for the demographics having two groups such as gender, age, marital status and job experience and ANOVA was used for the demographics having more than three groups such as medical departments.

Gender Differences in Perceived Social Support, Empathy, and Compassion Fatigue

To assess gender differences in perceived social support (friends, family and significant others), empathy and compassion fatigue (burnout and secondary traumatic stress) on independent sample t-test was done. Analysis produce results that are describe in the table 6 presented in the next page:

Table 6

Gender *Differences on Empathy, Perceived Social Support and Compassion Fatigue among Nurses (N = 242)*

Variables	Men ($n = 97$)		Women ($n = 145$)				95% CI		Cohen's D
	M	*SD*	*M*	*SD*	*t(240)*	*p*	*LL*	*UL*	
PSS	61.68	18.40	37.56	10.34	12.65	.00	20.36	27.87	1.62
Fam.	23.30	5.72	14.64	5.17	10.93	.00	7.09	10.21	1.59
Fri.	20.28	6.85	11.80	4.67	10.76	.00	6.93	10.03	1.45
So.	18.10	8.03	11.11	5.28	7.72	.00	5.20	8.77	1.03
EMP	35.17	5.68	41.63	3.78	-10.04	.00	-7.74	-5.20	1.34
CF	50.40	10.68	62.31	6.75	-10.12	.00	-14.23	-9.60	1.33
BO	23.97	5.18	27.75	4.05	-5.83	.00	-5.06	-2.51	0.81
STS	26.43	8.10	34.56	6.44	-7.93	.00	-10.15	-6.11	1.11

Note. PSS = Perceived Social Support, Fri. = Friends, Fam. = Family, So. = Significant other, ,Emp. = Empathy, CF = Compassion Fatigue, BO = Bu[illegible]out, STS = Secondary Traumatic Stress.

Table 6 explains the difference of mean scores of men and women (gender) on the measure of perceived social support, empathy and compassion fatigue. There are significant differences in men and women across these variables. Cohen (1988) defined cohen's d effect sizes as small, d = .2, medium, d = .5, and large, d = .8. However, large cohen's d effect size indicates gender differences are more effected in these variables.

Comparison of Marital Status Groups

To assess gender differences in perceived social support (friends, family and significant others), empathy and compassion fatigue (burnout and secondary traumatic stress) on independent sample t-test was done. Analysis produce results that are describe in the following table below:

Table 7

Differences of marital status on Empathy, Perceived Social Support and Compassion Fatigue among Nurses (N = 242).

Variables	Single (n = 125)		Married (n = 117)				95% CI		Cohen's d
	M	*SD*	*M*	*SD*	*t(240)*	*p*	*LL*	*UL*	
PSS	48.24	18.69	38.53	11.95	4.77	.00	5.71	13.71	0.62
Fam.	18.07	7.17	15.43	5.38	3.23	.00	1.03	4.26	0.42
Fri	16.27	6.73	11.38	4.99	6.39	.00	3.39	6.41	0.83
So.	13.90	7.46	11.72	5.78	2.52	.01	.47	3.87	0.33
EMP	37.64	4.50	42.58	4.55	-8.48	.00	-6.07	-3.79	1.09
CF	56.22	9.93	62.71	7.55	-5.69	.00	-8.73	-4.24	0.74
BO	25.70	4.76	28.00	4.24	-3.95	.00	-3.44	-1.15	0.51
STS	30.52	8.08	34.71	6.70	-4.37	.00	-6.07	-2.30	0.56

Note. PSS = Perceived Social Support, Fri. = Friends, Fam. = Family, So. = Significant other, Emp. = Empathy, CF = Compassion Fatigue, BO = Burnout, STS = Secondary Traumatic Stress.
*p< .05. **p< .01, ***p<.001

Table 7 explains the difference of mean scores of single and married nurses on the measure of perceived social support, empathy and compassion fatigue. There are significant differences in single and married across these variables. Cohen (1988) defined cohen's d effect sizes as small, d = .2, medium, d = .5, and large, d = .8. However, large cohen's d effect size indicates marital status differences are more effected in these variables.

Comparison of Age Groups

Nurses in the sample are divided into two agegroups on the basis of Daniel levinson's theory of adulthood, pre-adulthood (17-22) and early adulthood (23-45) on study variables (Levison, 1978). Independent sample t-test was used for this purpose.

Table 8

Differences of age on Perceived Social Support, Empathy and Compassion Fatigue among Nurses (N = 242).

Variables	Pre-adulthood (*n* = 16)		Early adulthood (*n* = 226)				95% CI		Cohen's *d*
	M	*SD*	*M*	*SD*	*t(240)*	*p*	*LL*	*UL*	
PSS	47.06	21.87	43.30	16.08	.88	.38	-4.65	12.18	0.20
Fam.	18.00	7.75	16.70	6.40	.77	.44	-2.02	4.60	0.18
Fri	14.68	8.77	13.85	6.25	.50	.62	-2.44	4.12	0.11
So.	14.37	7.86	12.74	6.69	.93	.35	-1.82	5.09	0.22
EMP	39.06	7.94	40.10	4.91	-.78	.44	-3.66	1.59	0.16
CF	56.43	12.90	59.56	9.13	-1.29	.20	-7.92	1.66	0.28
BO	27.25	6.35	26.78	4.52	.38	.69	-1.91	2.84	0.09
STS	29.19	8.73	32.78	7.61	-1.81	.07	-7.51	.32	0.44

Note. PSS = Perceived Social Support, Fri. = Friends, Fam. = Family, So. = Significant other, Emp. = Empathy, CF = Compassion Fatigue, BO = Burnout, STS = Secondary Traumatic Stress.
*p< .05. **p< .01, ***p<.001

Table 8 shows that there are non-significant differences of age groups on study variables, which means in our sample age difference do not effect perceived social support, empathy and compassion fatigue.

Group Differences for Job Experience

Nurses in the sample are divided into three groups on the basis of mean differences for job experience on empathy perceived social support and compassion fatigue. ANOVA was used for this purpose.

Table 9

Differences on Job experience along with Perceived Social Support, Empathy and Compassion Fatigue among Nurses (N= 242).

Variables	Junior ($n = 163$)		Senior ($n = 79$)				95% CI		Cohen's d
	M	*SD*	*M*	*SD*	*t(240)*	*p*	*LL*	*UL*	
PSS	43.14	17.15	44.39	15.13	-.55	.58	-5.71	3.20	0.08
Fam.	16.96	6.53	16.44	6.43	.58	.56	-1.23	2.28	0.08
Fri	13.59	6.67	14.55	5.88	-1.09	.27	-2.70	.77	0.15
So.	12.58	6.89	13.39	6.52	-.87	.38	-2.64	1.02	0.12
EMP	39.97	5.25	40.15	4.95	-.20	.80	-1.57	1.21	0.04
CF	59.79	9.87	56.46	8.39	1.02	.30	-1.22	3.87	0.36
BO	26.84	4.53	26.75	4.92	.13	.89	-1.18	1.34	0.02
STS	32.95	7.72	31.70	7.69	1.17	.24	-.84	3.32	0.16

Note. PSS = Perceived Social Support, Fri. = Friends, Fam. = Family, So. = Significant other, Emp. = Empathy, CF = Compassion Fatigue, BO = Burnout, STS = Secondary Traumatic Stress.
*p< .05. **p< .01, ***p<.001

Table 9 shows results of independent sample t-test for the effect of job experience on perceived social support, empathy and compassion fatigue. There is no significant mean difference on any variable.

Group Differences for Medical Departments

Following tables illustrates the group differences for medical departments on study variables.

Table 10

Variable	G1 (*n*=9)	G2 (*n*=52)	G3 (*n*=15)	G4 (*n*=51)	G5 (*n*=51)	G6 (*n*=24)	G7 (*n*=40)			Post hoc	M.D	95%CI	
	M *SD*	*M*	*M*	*M*	*M*	*M*	*M*	*F*	*P*	*i>j*	*i-j*	*LL*	*UL*
PSS										5>1	19.79	3.74	35.8
	26.88	42.83	43.47	40.23	46.69	62.29	37.27	10.17	.00	5>7	9.41	0.03	18.7
	-5.42	-13.54	-9.65	-13.27	-17.25	-22.59	-12.44			6>1	35.40	18.05	52.7
										6>2	19.46	8.51	30.4
										6>3	18.82	4.21	33.4
										6>4	22.05	11.06	33.0
										6>5	15.60	4.61	26.5
										6>7	25.01	13.55	36.4
Fri.	8.44	13.35	12.33	13.09	16.23	21.41	10.72	10.4	.00	5>1	7.79	1.13	14.4
	-3.16	-5.38	-4.04	-6.2	-5.65	-9.81	-6.16			5>7	5.51	1.62	9.3
										6>1	12.97	5.77	20.1
										6>2	8.07	3.52	12.6
										6>3	9.08	3.02	15.1
										6>4	8.31	3.76	12.8
										6>5	5.18	0.62	9.7
										6>7	10.69	5.93	15.4
Fam.	10.56	17.78	17.86	15.02	17.45	23.33	14.77	7.53	.00	2>1	7.23	0.48	13.9
	-3.39	-6.83	-4.12	-5.56	-7.32	-6.95	-5.64			5>1	6.89	0.13	13.6
										6>1	12.77	5.46	20.0
										6>2	5.54	0.93	10.1
										6>4	8.31	3.68	12.9
										6>5	5.88	1.25	10.5
										6>7	8.55	3.73	13.3
Spec.	7.89	11.69	13.27	12.12	13	17.62	11.77	3.84	.00	6>1	9.73	2.46	1
	-3.37	-5.87	-4.11	-5.84	-7.09	-8.48	-5.59			6>2	5.93	1.34	10.5
										6>4	5.5	0.9	10.1
										6>5	4.62	0.02	9.2
										6>7	5.85	1.04	10.6

Note. G1 = Pathology, G2 = Emergency, G3 = Microbiology, G4 =Psychiatry, G5= Cardilogy, G6=Intensive Units, G7= Others.

Table 11

ariable	G1 (*n*=9)	G2 (*n*=52)	G3 (*n*=15)	G4 (*n*=51)	G5 (*n*=51)	G6 (*n*=24)	G7 (*n*=40)			Post hoc	M.D	95%CI	
	M *SD*	*M*	*M*	*M*	*M*	*M*	*M*	*F*	*P*	*i>j*	*i-j*	*LL*	*UL*
										1>2	6.75	1.9	11.
	46.78	40.01	44.8	40.86	38.8	34.58	40.52	12.9	.00	1>4	5.91	1.05	10.
	-4.89	-3.84	-4.49	-4.41	-3.69	-7.93	-3.46			1>5	7.97	3.11	12.
										1>6	13	6.94	17.
										1>7	6.25	1.29	11.
										2>6	5.43	2.12	8.7
Emp.										3>2	4.78	0.84	8.7
										3>5	5.99	2.04	9.9
										3>6	10.2	5.79	14.
										3>7	4.27	0.2	8.3
										4>6	6.27	2.95	9.
										5>6	4.22	0.89	7.5
										7>6	5.94	2.47	9.4

Note. G1 = Pathology, G2 = Emergency, G3 = Microbiology, G4 =Psychiatry, G5= Cardilogy, G6=Intensive Units, G7 = Others.

Table 12

ariable	G1 (*n*=9)	G2 (*n*=52)	G3 (*n*=15)	G4 (*n*=51)	G5 (*n*=51)	G6 (*n*=24)	G7 (*n*=40)			Post hoc	M.D	95%CI	
	M *SD*	*M*	*M*	*M*	*M*	*M*	*M*	*F*	*P*	*i>j*	*i-j*	*LL*	*UL*
	71.55	59.25	61.8	60.54	57.67	49.12	62.62	10.7	.00	1>2	12.3	3.22	21.38
	-4.55	-7.52	-5.34	-8.3	-8.14	-14.61	-6.55			1>4	11	1.91	20.09
										1>5	13.88	4.79	22.98
										1>6	22.43	12.6	32.25
CF										2>6	10.12	3.91	16.33
										3>6	12.67	4.39	20.95
										4>6	11.42	5.19	17.64
										5>6	8.54	2.31	14.76
										7>6	13.5	7	19.99
	31.11	25.88	31.53	29.15	25.62	22.45	26.42	13.8	.00	1>2	5.22	0.87	9.57
	-3.48	-4.13	-1.55	-4.15	-4.47	-4.76	-3.45			1>5	5.48	1.12	9.83
										1>6	8.65	3.94	13.36
										1>7	4.68	0.24	9.12
										2>6	3.42	0.45	6.39
										3>2	5.64	2.11	9.17
										3>5	5.9	2.36	9.44
BO										3>6	9.07	5.11	13.03
										3>7	5.1	1.46	8.75
										4>2	3.27	0.89	5.64
										4>5	3.52	1.14	5.91
										4>6	6.69	3.71	9.68
										4>7	2.73	0.18	5.27
										5>6	3.16	0.18	6.15
										7>6	3.96	0.85	7.07
	40.44	33.36	30.26	31.39	32.03	26.66	36.2	6.78	.00	1>3	10.17	1.12	19.22
	-3.71	-7.78	-6.16	-6.43	-6.95	-10.98	-5.63			1>4	9.05	1.29	16.81
										1>5	8.4	0.64	16.16
STS										1>6	13.77	5.38	22.16
										2>6	6.69	1.4	11.99
										5>6	5.37	0.05	10.68
										7>4	4.8	0.27	9.34
										7>6	9.53	3.99	15.07

Note. G1 = Pathology, G2 = Emergency, G3 = Microbiology, G4 =Psychiatry, G5= Cardilogy, G6=Intensive Units, G7= Others.

Table illustrates that mean differences are significant in case of empathy where (f value 12.94,p<.05), PSS (f 10.17, p<0.05), friends (f 10.37, p<0.05), family (f 7.53, p<0.05), special (f 3.84, P<0.05), compassion fatigue (f 10.69, p<0.05), burnout (F 13.80, p<0.05) and secondary traumatic stress (F 6.78, p<0.05). It states that the results are significant for all the variables as p value is less than 0.05. For the variable empathy, group 1(pathology) performs better than all other groups. For the variable perceived social support group 6 (intensive units) outperforms all other groups in terms of mean value, however the standard deviation for group 6 (intensive units) is also higher than other groups. For the variables friends, family and significant other again group 6 (intensive units) performs better than all other groups. For compassion Fatigue and secondary traumatic stress group 1(pathology) has highest mean value, for burnout group 3(microbiology) and group 1 (pathology) perform better than other groups.

DISCUSSION

DISCUSSION

The aim of the present study is to explore the relationships between perceived social support, empathy and compassion fatigue among nurses. Since nursing is the profession which requires more responsibility and empathy due to its direct relationship with patients. They remain in more caring relationship with patient then doctor or any other care taker. Their profession has a much harder draw back and that is compassion fatigue (Duarte, Pinto-Gouveia, & Curz, 2016), which can be reduced by the increase in perceived social support (Ologun & Ibigbami, 2006). Based upon the aforementioned findings, the role of perceived social support and empathy in predicting compassion fatigue among nurses was explored (N=242).

The role of demographic variables (age, gender and education) was also explored as control variables. Furthermore, the role of various medically related variables such as different departments were also included for study variables. Additionally, the role of experience related variables such as job experience was also explored for the study variables. Empathy was further explored as mediators between perceived social support and compassion fatigue.

For conducting the current study, reliable scales were used which were tested in many studies before, for getting the scores of our study variables. Author consent was taken. Minimal word changes were made for making the items more clear for our sample. The current study was conducted in single phase, which involved a main study.

For the main study, the sample was 242 nurses from both private and government hospitals across Islamabad and Rawalpindi. Frequencies and percentages of the demographic variables were calculated in order to gain an understanding of the sample characteristics (see Table 2). The reliability estimates of all measures were found to be satisfactory (see Table 3). This shows that all the study measures are internally consistent. Descriptive statistics were computed in order to determine overall distribution of the data. The values of skewness were negative for empathy, compassion fatigue, burnout and secondary traumatic stress indicating that these measures have been highly

scored upon within the data. Looking at the mean scores of all measures, the highest transformed mean values among the scales is of compassion fatigue scale (59.35). This shows that nurses tend to have more compassion fatigue.

Relationship between Perceived Social Support, Empathy, and Compassion Fatigue

Correlation analyses were then performed in order to identify the relationships between each of the study variables. Results indicated a negative relationship of perceived social support with empathy and compassion fatigue along with its subscales which included burnout and secondary traumatic stress. While there was a positive relationship between empathy and compassion fatigue there (see Table 4). Therefore, Hypotheses 1 and 2 have all been confirmed.

Perceived Social Support and Compassion Fatigue. There are consistent findings in literature revealing a negative relationship between perceived social support and compassion fatigue. Studies suggest that social support is a key variable in determining a person's response to exposure to traumatic situations (Keidel, 2002). Therefore, social support is a variable that plays an important role in reducing the symptoms of compassion fatigue in nurses. It may be said that family members have an important role in the psychological problems of nurses who work in hospitals. Because family members offer emotional support like esteem, trust, concern, and listening, and these effects can play an important role in reducing the symptoms of compassion fatigue and burnout in nurses (Ologun & Ibigbami, 2006). The low level of manager support was a significant predictor of higher levels of burnout and compassion fatigue among emergency department nurses (Hunsaker, Chen, Maughan& Halt Heaston, 2015). Furthermore, a significant, negative relationship has been found between perceived social support and compassion fatigue (Ariapooran, 2014). Therefore, Hypothesis 1, that is, perceived social support is negatively related with compassion fatigue among nurses, has been confirmed by the results of the study as well as supported by previous literature.

Empathy and Compassion fatigue. Findings highlight compassion fatigue as a psychic cost of empathy (Udipi et al.,2008). Empathy in medicine is challenging though, because doctors and nurses are dealing with the most emotionally distressing situations–

illness, dying, suffering in every form–and such situations would normally make an empathic person anxious, perhaps too anxious to be helpful (Halpern, 2012). Moreover, repeated empathic engagement with distressed patients in a cycle of caring (empathic attachment, active involvement, and felt separation) may place caregivers such as nurses at risk of experiencing compassion fatigue (Joinson 1992; Skovholt 2001). The caregiver does not physically experience the traumatic event but does experience the event emotionally by caring for the patient (Sabo, 2006).This painful reality may take its toll on these individuals and can lead to compassion fatigue, burn out, professional distress and result in a low sense of accomplishment and severe emotional exhaustion (Gleichgerrcht, & Decety, 2011). People with a higher score on dimensions such as empathic concern tend to greater development of compassion fatigue and burnout (William, 1989). Therefore, it can be proposed that Hypothesis 2, that is, empathy is positively related with compassion fatigue is confirmed.

Perceived Social Support and Empathy. Research reveals a significant negative relationship between perceived social support and empathy. This is influenced by the sample of nurses we chose and the culture. Nurses who were satisfied with their social circle and scored high on perceived social support tend to have less empathetic engagement with patients due to which the empathy scores are effected and thus the results showed negative relationship between both variables and as our culture is collectivistic social support around us is so common that we fail to perceive it as support due to which those who reported high empathy reported low levels of perceived social support.

As empathy is directly related to sensitivity and sensitivity seems to predict expectations (Cheadle et al., 2014), whereas expectations are negatively associated with perceived social support (Altay et al., 2014), we can say that there is a negative association that exist between empathy and perceived social support.

In order to explore the role of study variables as both predictors and mediators simultaneously in predicting compassion fatigue among nurses, a model indicating the predictive relationships between study variables was designed (see Figure 1). The model shows the perceived social support effects compassion fatigue in a process where

empathy is the mediator and perceived social support is the predictor of compassion fatigue. The mediation is discussed below with supportive findings from literature.

Mediating Role of Empathy on the relationship between perceived social support and compassion fatigue. Perceived social support predicts compassion fatigue through empathy, such that empathy has a mediating effect between perceived social support and compassion fatigue. When nurses have high perceived social support, they are likely to experience less empathy which leads to lower compassion fatigue. The role of empathy as a mediator has not been directly explored in literature, but indirect links can be seen between perceived social support, empathy and compassion fatigue. The positive relationship between empathy and compassion fatigue has been explained by the ten component model of compassion fatigue (Figley, 2003). According to the theory, empathic ability of nurses make them vulnerable to compassion fatigue. Further research also supports a negative relationship between perceived social support and compassion fatigue (Soleimani, 2010). This not only reduces empathy, but high levels of perceived social support have been linked to low levels of compassion fatigue (Ariapooran, 2014). Thus, Hypotheses 4; that Empathy mediates the relationship between perceived social support and compassion fatigue among nurses is proved.

Demographic Variables. Aside from study variables, the influence of demographic variables of age, gender, marital status, job experience and medical department was checked as control variables. The findings revealed significant differences for gender, marital status and medical departments whereas it revealed non-significant relationships of age and job experience for study variables This finding is further supported by literature as significant differences of compassion fatigue were found between genders (Sprang, Clark & Whitt-Woosley, 2007). As per relevant research, gender has been found to have significant impact upon perceived social support as well (Cornman, Goldman, Weinstein, & Lin, 2001). Non-significant findings for age and job experience may be supported by contradicting evidences in literature. Kolthoff& Hickman (2016) After accumulation of the survey, findings showed that nurses who worked on the geriatric medicine unit for less than one year were identified as inexperienced, facing more compassion fatigue as compared to nurses who were more

experienced, while a study testing compassion fatigue found no relationship between the age and experience of the participants (Uchino, 2000).

Nurses of pathology department showed higher empathy as compared to all other specialty fields. In case of perceived social support, and its subscales family, friends and significant others, nurses of intensive care unit showed the greater support than other specialty fields. For compassion fatigue and its subscales burnout and secondary traumatic stress nurses of pathology department were most vulnerable.

Conclusion

Findings of the study revealed that perceived social support plays the strongest predictive role for compassion fatigue among nurses. A negative relationship was established between perceived social support and compassion fatigue such that nurses with greater perceived social support will experience low levels of compassion fatigue. This relationship was explored through a process in which empathy is the mediator in the path of perceived social support towards compassion fatigue.

The findings of the study emphasize the need for increasing perceived social support and on methods of reducing empathy which in turns lessens the compassion fatigue. This may help in creating better training system for nurses which can reduce compassion fatigue among them and this will lead to greater standards carried out by nurses in hospitals. Hopefully, the current nurses will allow for further research on this topic and for more focus on compassion fatigue, which is generally a less-explored area of research in Pakistan.

Limitations and Suggestions

Though the research was detailed and comprehensively performed, there are few limitations:

- The data was collected from various hospitals of Islamabad only which indicated that the results are narrowed down for a particular city. In this regard, only nurses from major hospitals of Islamabad were approached as a sample and given the questionnaire to fill.

- Furthermore, diversity can be obtained in future studies and research by expanding the sample size and also by reaching out to other cities to collect data samples
- Another limitation while conducting the research work was time constraint as the research needs to be concluded in a provided time frame, it can face certain limitations.
- The research was conducted on limited demographic variables which can be covered through a broader research with more dynamic demographics in future research.
- Existing literature for the current study was not easily approachable as there was no research done with regard to the relationship among these variables in Pakistan.

In this regard, it is suggested that research upon these topics should be performed in Pakistan for coherent understanding of the issues.

Implications of Present Study

The present study provides significant contribution in the field of research work and academics. The findings of the study can have important implications for nurses and medical institutions. The results of the study can therefore be implied in the field of medical as:

- Interventions may be designed for nurses to prevent or protect them from compassion fatigue and promote awareness about social support and its benefits to enhance perceived social support among nurses.
- Results indicate that empathy is mediating factors for perceived social support in leading toward compassion fatigue. Thus, methods to enhance trainings which can explain about empathetic distance for patients and reduce empathetic levels can be implemented, in order to decrease compassion fatigue in the presence of perceived social support.

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ANNEXURES

INFORMED CONSENT

My name is Syeda Maliha Jaffery and I am a student of MSc at National Institute of Psychology, Quaid-e-Azam University, Islamabad. I am conducting research in order to fulfill a partial requirement of my degree. The aim of my study is to explore factors that influence the fatigue among nurses.

The results of the study may have important implications in areas of nursing and psychology. Nurses may benefit from methods of reducing compassion fatigue, as well as learn the importance of increasing perception of social support and decreasing empathy. Supervisors may implement ways to improve nurses performance and reduce fatigue.

All information provided by you will be kept confidential and will only be used for the purpose of research. There is no right or wrong answer. Please do not leave any questions unanswered and please answer each to the best of your knowledge and with honesty. You have the right to withdraw at any point during the research. If you are willing to participate, kindly sign below and fill the subsequent questionnaires.

Thank you for your cooperation.

I have been informed about the purpose and detailed procedure involved in the current study.
I willingly agree to participate in this research.

____

Participant's Signature

In the event of any kind of information or query, please e-mail

Demographic Sheet

Age: __________ (Approximate years)

Marital Status

☐ Single ☐ Married ☐ Separated ☐ Divorced ☐ Widowed

Gender:

☐ Male ☐ Female

Job Experience:_______________ (Approximate years)

Monthly Income (PKR): _________________

Specialty: _____________________ (e.g emergency, psychiatry, cardiology, etc)

Below is a list of statements. Please read each statement carefully and rate how frequently you feel or act in the manner described. Circle your answer on the response form. There are no right or wrong answers or trick questions. Please answer each question as honestly as you can.

		Never	Rarely	Sometimes	Often	Always
1.	When someone else is feeling excited, I tend to get excited too	0	1	2	3	4
2.	Other people's misfortunes do not disturb me a great deal	0	1	2	3	4
3.	It upsets me to see someone being treated disrespectfully	0	1	2	3	4
4.	I remain unaffected when someone close to me is happy	0	1	2	3	4
5.	I enjoy making other people feel better	0	1	2	3	4
6.	I have tender, concerned feelings for people less fortunate than me	0	1	2	3	4
7.	When a friend starts to talk about his\her problems, I try to steer the conversation towards something else	0	1	2	3	4
8.	I can tell when others are sad even when they do not say anything	0	1	2	3	4
9.	I find that I am "in tune" with other people's moods	0	1	2	3	4
10.	I do not feel sympathy for people who cause their own serious illnesses	0	1	2	3	4
11.	I become irritated when someone cries	0	1	2	3	4
12.	I am not really interested in how other people feel	0	1	2	3	4
13.	I get a strong urge to help when I see someone who is upset	0	1	2	3	4
14.	When I see someone being treated unfairly, I do not feel very much pity for them	0	1	2	3	4
15.	I find it silly for people to cry out of happiness	0	1	2	3	4
16.	When I see someone being taken advantage of, I feel kind of protective towards him\her	0	1	2	3	4

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you **Very Strongly Disagree**
Circle the "2" if you **Strongly Disagree**
Circle the "3" if you **Mildly Disagree**
Circle the "4" if you are **Neutral**
Circle the "5" if you **Mildly Agree**
Circle the "6" if you **Strongly Agree**
Circle the "7" if you **Very Strongly Agree**

		Very Strongly Disagree	Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree	Very Strongly Agree
1.	There is a special person who is around when I am in need.	1	2	3	4	5	6	7
2.	There is a special person with whom I can share joys and sorrows.	1	2	3	4	5	6	7
3.	My family really tries to help me.	1	2	3	4	5	6	7
4.	I get the emotional help & support I need from my family.	1	2	3	4	5	6	7
5.	I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6.	My friends really try to help me.	1	2	3	4	5	6	7
7.	I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8.	I can talk about my problems with my family.	1	2	3	4	5	6	7
9.	I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10.	There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7
11.	My family is willing to help me make decisions.	1	2	3	4	5	6	7
12.	I can talk about my problems with my friends.	1	2	3	4	5	6	7

When you *[help]* people you have direct contact with their lives. As you may have found, your compassion for those you *[help]* can affect you in positive and negative ways. Below are some-questions about your experiences, both positive and negative, as a *[helper]*. Consider each of the following questions about you and your current work situation. Select the number that honestly reflects how frequently you experienced these things in the <u>*last 30 days*</u>.

1=Never	**2=Rarely**	**3=Sometimes**	**4=Often**	**5=Very Often**

_____ 1. I am happy.
_____ 2. I am preoccupied with more than one person I *[help]*.
_____ 3. I get satisfaction from being able to *[help]* people.
_____ 4. I feel connected to others.
_____ 5. I jump or am startled (scared/frightened) by unexpected sounds.
_____ 6. I feel invigorated (energized/motivated) after working with those I *[help]*.
_____ 7. I find it difficult to separate my personal life from my life as a *[helper]*.
_____ 8. I am not as productive at work because I am losing sleep over traumatic experiences of a person I *[help]*.
_____ 9. I think that I might have been affected by the traumatic stress of those I *[help]*.
_____ 10. I feel trapped by my job as a *[helper]*.
_____ 11. Because of my *[helping]*, I have felt on edge (tensed/ irritable) about various things.
_____ 12. I like my work as a *[helper]*.
_____ 13. I feel depressed because of the traumatic experiences of the people I *[help]*.
_____ 14. I feel as though I am experiencing the trauma of someone I have *[helped]*.
_____ 15. I have beliefs that sustain (encourage/ assist) me.
_____ 16. I am pleased with how I am able to keep up with *[helping]* techniques and protocols.
_____ 17. I am the person I always wanted to be.
_____ 18. My work makes me feel satisfied.
_____ 19. I feel worn out (extremely tired/ exhausted) because of my work as a *[helper]*.
_____ 20. I have happy thoughts and feelings about those I *[help]* and how I could help them.
_____ 21. I feel overwhelmed because my case [work] load seems endless.
_____ 22. I believe I can make a difference through my work.
_____ 23. I avoid certain activities or situations because they remind me of frightening experiences of the people I *[help]*.
_____ 24. I am proud of what I can do to *[help]*.
_____ 25. As a result of my *[helping]*, I haveintrusive (interrupting), frightening thoughts.
_____ 26. I feel bogged down (restrained) by the system.
_____ 27. I have thoughts that I am a "success" as a *[helper]*.
_____ 28. I can't recall important parts of my work with trauma victims.
_____ 29. I am a very caring person.
_____ 30. I am happy that I chose to do this work.

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