Psychological Correlates of Distress in Rescue 1122 Workers in Pakistan

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ABSTRACT: *The present research aimed to explore the psychological correlates of distress in Rescue 1122 workers. Relationship between emotional empathy, coping strategies, compassion fatigue and psychological distress was hypothesized. In addition, it was hypothesized that emotional empathy, coping strategies and compassion fatigue would predict psychological distress. By employing purposive sampling, 150 participants were selected from four Rescue 1122 stations in Lahore. Emotional Empathy Scale (Ashraf, 2004), Coping Strategies Questionnaire (Kausar & Munir, 2004), Compassion Fatigue Short Form (Adam, Figley & Boscarino, 2006) and Depression, Anxiety and Stress Scales (DASS: P. F. Lovibond & S. H. Lovibond, 1993) were used for assessment of the variables. Low tendency to be moved by other people emotional experiences and use of avoidance focused coping were found to predict depression, anxiety and stress. Less utilization of active focused coping was also found to be a predictor of anxiety while high level of burnout emerged as a predictor of stress. From demographics, exposure to traumatic events before joining service, high level of perceived support from workmates predicted depression, anxiety and stress. The research signified that Rescue 1122 administration needs to address these factors contributing towards psychological distress by enhancing training methods and providing psychological support to workers.*

Key words: *Rescue workers, emotional empathy, coping strategies, compassion fatigue, psychological distress*

INTRODUCTION

First ever structured emergency service at government level began in Pakistan by the name of Punjab Emergency Service in 2005. It is the largest institution providing humanitarian emergency services in Pakistan. It initially began an ambulance service known as Rescue 1122. After the initial piloting and success of the services, Rescue 1122 services were expanded geographically to 35 districts of Punjab (Pakistan's province), and its operations were expanded to include rescue services (catering to unique and specific emergency situations such as water, confined spaces and height emergencies), disaster response teams and community safety programs (Community Safety, 2013).

As an organization, Rescue 1122 meets the international standards of emergency management as put forward by World Health Organization (WHO). Since its inception, Rescue 1122 has saved the lives of 1, 675, 247 victims of emergencies. The response time has been an average of six minutes, which is high-quality performance considering the population of Punjab is 80 million. There are 15 stations of Rescue 1122 operating in the city of Lahore alone (Rescue 1122, 2014).

Individuals providing emergency services in Pakistan face a unique challenge quite unlike their counterparts living in other more developed countries as the country is facing an exceedingly difficult situation. It is not only undergoing economic problems but also security issues – add to that, political crisis. The emergency services working in Pakistan has also not been receiving adequate funding and support from the recent governments making Pakistani rescue workers an important area of research and attention.

Pakistan also differs significantly from western countries owing to its collectivistic cultural set-up. Most of the researches on rescue worker have been restricted to developed countries in the West having individualistic cultures. Therefore, the present research aimed to study the correlates of distress in rescue workers in Pakistan so that tailor-made training strategies and interventions could be planned and implemented for the rescue workers who operate in evermore challenging contexts such as Pakistan. In addition, the research aimed to address compassion fatigue in rescue workers, which has not been tapped into before.

In the next section, psychological distress as indexed by depression, anxiety and stress is discussed in detail.

PSYCHOLOGICAL DISTRESS

As rescue workers have to face considerable number of traumatic events, their mental health and job performance may be adversely affected. Rescue workers daily encounters with traumas burdens their mental life as these encounters, at times; also make them question their own control over their lives causing distress (Papovic, 2009). When it comes to mental health, the level of psychological distress is used as an indication of it. The nature of work exposure of rescue workers is as such that it may lead to the development of psychological distress in them (Liao et al., 2002; Oosthuizen & Koortzen, 2007; Regehr, 2009; Sim, 2011; Shabnam & Sitwat, 2011), which is generally considered to include depression and anxiety (Mirowsky & Ross, 2002). In addition, stress, which may also be a negative affective state, is also considered a part of psychological distress (Draipan, Marchand, & Beaulieu-Presvot, 2012). All of three of these negative affective states that are depression, anxiety and stress have been discussed in detail in the account below.

Depression

Depression and anxiety are considered separate affective states with some overlap. Depression is marked with negative self-evaluation, and despair and hopelessness regarding the past. Sufferers

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consider their lives and themselves as worthless. They tend to catastrophize events taking place around them (Tanaka, Sakamoto, Kijima, & Kitmaru, 1998).

They lose interest in daily activities and fail to experience positive emotions. They do not feel like participating in pleasurable activities, which they previously enjoyed. They lose interest even in their hobbies, and develop a nonchalant attitude towards things. Irritability is also associated with depression as the individual may be persistently angry or show anger or frustration over other minor issues. Apart from blaming themselves, they may engage in excessive blaming directed outwards towards others (American Psychiatric Association, 2000).

Depression is also associated with disturbances in sleep and eating patterns. It is also associated with decrease in energy, feelings of tiredness and fatigue. The individual may also report feeling tired even after participating in activities requiring minimum amounts of effort. This may also affect the efficiency of performing day-to-day tasks and work related duties. Depression is also associated with impaired ability to concentrate, think and make decisions. Memory impairments may also result from depression. Suicidal ideations and attempts are also associated with depression. Latter is prevalent in individuals experiencing more severe form of depression (American Psychiatric Association, 2000).

Anxiety

On the other hand, anxiety is provoked when a person anticipates danger in the future (Tanaka, Sakamoto, Kijima, & Kitmaru, 1998). Anxious individuals are constantly living in the fear that something bad may happen in future. Due to this, the individuals remain shaky, afraid and on the edge. As these individuals are constantly anticipating the worst, they are found to be making attempts and trying frantically to control and stop the anticipated bad events from happening. Anxiety is also marked with autonomic arousal, which included symptoms such as dryness of mouth, palpitation, racing heartbeat, breathing difficulties and difficulty in swallowing (American Psychiatric Association, 2000).

Anxiety is characterized by constant worry about the future, and therefore results in physiological arousal, which may affect their sleep and eating habits and ability to concentrate (American Psychiatric Association, 2000). Depression and anxiety both share characteristics of experience of shame, guilt, fear and misery. It has been seen that people exhibiting symptoms of depression usually exhibit symptoms of anxiety as well (Lovibond & Lovibond, 1995).

Stress

Stress is characterized by the feelings of irritability, agitation and experiencing difficulty in relaxing. Stress is related to non-specific arousal, which is chronic in nature. Stress is symbolized by being easily frustrated and annoyed, being over-reactive and impatient. Individuals who are stressed find their lives as being overloaded and unpredictable (Lovibond & Lovibond, 1995). All in all, stress, anxiety and depression all causes impairment in occupational and social lives as well as having bad repercussions in terms of physiological health (American Psychiatric Association, 2000). This causes a decrease in productivity on the job, which may even further increase the level of stress experienced leading to distress (Horwitz, 2007; Ridner, 2004) and thus, demands attention from mental health professionals and researchers alike.

A number of factors can be stated to contribute towards psychological distress. On personal level, compassion fatigue experienced by the individuals (Adams, Boscarino, & Figley, 2006; Matheiu, 2007), their level of empathy (Larson & Yao, 2005) and their coping strategies (Eisenbarth, 2013) are worthy of discussion amongst others.

Compassion Fatigue

Compassion fatigue is a fairly novel concept. It emerged in the mid 1990's, and is found to be prevalent in individuals engaged in professions concerned with helping others. It results by focusing high amount of energy and compassion over an extended period of time without experiencing positive outcomes or improvement (Gentry, 2002; McHolm, 2006). Keeping this in view, rescue workers can be said to be vulnerable to compassion fatigue as they put in a lot of efforts in saving others and it does not allow for any margin of error. The outcomes, however, are not always ensured as rescue workers are working against high odds. Therefore, the outcomes are negative at times, which can be demoralizing. Compassion fatigue causes relational problems and a cognitive shift, which leaves the individuals feeling helpless and vulnerable (Portnoy, 2011), and most importantly, if left untreated, compassion fatigue may translate into depression and anxiety (Adams, Boscarino, & Figley, 2006; Matheiu, 2007).

Stamm (2010) and Adams, Figley and Boscarino (2008) described compassion fatigue as having two components: burnout and vicarious trauma. Burnout results from having to face demanding and challenging interpersonal situations. Burnout is defined as having three components namely emotional exhaustion, depersonalization and personal inefficacy (Maslach, Schaufeli, & Leiter, 2001). In addition to usual burnout symptoms, a person experiencing compassion fatigue can feel a loss of significance and optimism, and can have reactions linked with Post Traumatic Stress Disorder (PTSD) such as intense feelings of anxiety, excessive emotional numbing, lapses in concentration, being nervous or easily startled, touchiness, difficulty in sleeping, intrusive images of another's traumatic experiences, etc. (Adams, Boscarino, & Figley, 2008).

Empathy

Empathy can be described as the ability to relate to others and put oneself in their shoes. In 1957, Carl Rogers, a psychotherapist, provided his own definition of empathy as the entering of the internal sphere of another person and accurately participating in that person's experience along with the meanings of the experience to the person (Hamilton, 2012).

Empathy has three dimensions that are emotive, cognitive and behavioral. Cognitive empathy also known as detached concern is the ability to understand and relate to others' perspectives as opposed to being completely self-oriented. Emotive empathy is the tendency to experience and be affected by other people feelings. The third dimension deals with expressing these internal experiences of empathy by actions (Larson & Yao, 2005). Empathy is desirable in rescue workers as it motivates pro-social behavior (McDonalds & Messinger, in press). Engaging in pro-social behavior causes individuals to experience helper's high, which may help in decreasing distress (Luks, 1988; Post, 2009). However, over-empathizing (especially of emotional kind) has also been said to have adverse consequences as it may lead to compassion fatigue and psychological distress (Hoffman, 2000; Hamilton & Miller, 2012; Thomas, 2013). It is evident from above that contradictory information is present with regards to the nature of association between empathy and psychological distress, which this research tried to investigate into with regards to rescue workers, which had not been done before.

Coping Strategies

According to Collins (2007), coping strategies are responses that are mentally conceived to perceived threat to oneself. When faced with a stressor, individuals try to cope up with it. The way individuals try to deal with stressors is their coping strategies. Literature generally shows that there are mainly three kinds of

coping strategies employed by people to deal with a stressor, which includes avoidance, emotion-focused coping and problem-focused (Lazarus & Folkman, 1984). Religious coping has also come to be known as another important type of coping (Pargament, 1997). Choice of coping strategies has a bearing on psychological distress and compassion fatigue - that is vicarious trauma and burnout - as experienced by individuals. For instance, active distractive coping (emotion focused coping) has been found to be positively correlated with PTSD (Clohessy & Ehler, 1999) while avoidance focused coping has been reported to be positively correlated to burnout (Schaufeli & Enzmann, 1998; Storm & Rothmann, 2003; Jaracz, Górna, Konieczna, 2005). Moreover, avoidance coping was stated to lead towards psychological distress particularly when the level of emotion focused and practical coping was low (Eisenbarth, 2013). Eisenbarth also concluded emotion focused coping to be adaptive in contradiction to the studies mentioned above. The present aimed to identify the coping styles predictive of distress in rescue workers among other objectives as mentioned below.

OBJECTIVES

The study had the following objectives:

- To examine the relationship between empathy, coping strategies, compassion fatigue and psychological distress (depression, anxiety and stress).

- To examine the predictive effect of empathy, coping strategies and compassion fatigue on psychological distress (depression, anxiety and stress) in Rescue 1122 workers after controlling for factors other than the above-mentioned variables of interest that may influence the psychological distress; thereby, obscuring their relationships (Field, 2013).

HYPOTHESES

Based on the literature and theory reviewed above, the following hypotheses were chalked out for this study.

- There would a relationship among empathy, coping strategies, compassion fatigue and psychological distress.

- Emotional empathy, coping strategies, compassion fatigue (vicarious trauma and burnout) will predict psychological distress (depression, anxiety and stress) among Rescue 1122 workers.

Based on these conjectures, Model 1 was hypothesized linking the variables (Figure 1).

METHOD

Research Design

For the current study, the paradigm of quantitative research was used.

Participants

One hundred fifty rescue workers employed were recruited from the Rescue 1122 department. Participants were recruited from the stations for which permission was granted by Rescue 1122 administration. Subsequently, rescue workers from four stations (Central, Walton, Defence Housing Authority and Township) in Lahore. The participants had a minimum of one year of experience of working in Rescue 1122. Participants were included from all four teams of Rescue 1122 namely Rescue/ Disaster Emergency Response Team, Ambulance Service, Fire Rescue Team and Rescue Team. However, administration informed the researcher that the division of personnel in teams is for namesake only, and the workers are exposed to all kinds of emergencies regardless of their respective teams due to the shortage of manpower. All rescue workers receive the same training as well. Every rescue worker who was approached agreed to participate in the study with the exception of three individuals.

Demographical details are listed in Table 1.

Instruments

Emotional Empathy Scale (EES: Ashraf, 2004)

Emotive component of empathy was measured using Emotional Empathy Scale (EES; Ashraf, 2004). It is an indigenous tool developed in Urdu. The scale comprises of 26 items representing its three dimensions. The three dimensions or factors are: "Tendency to be moved by Other's Positive and Negative Emotional Experiences", "Emotional Responsiveness" and "Susceptibility to Emotional Contagion". Split-half reliability of 0.83 and a high correlation of 0.65 with Balanced Emotional Empathy Scale were reported (Ashraf, 2004). For the present study, Cronbach Alpha for the overall scale was 0.90.

Coping Strategies Questionnaire (CSQ; Kausar & Munir, 2004)

Coping strategies questionnaire (CSQ) consists of 62 items and it is an indigenous tool developed for Pakistani population. The respondents are supposed to answer on a 4-point likert scale. The scale ranges from "did not use at all" to "used quite a lot" highlighting the level at which the strategy was utilized. The Cronbach Alpha for the present study was reported to be 0.82, 0.48, 0.77 and 0.76 for the subscales of active practical coping, active distractive coping, avoidance focused coping and religious coping respectively.

Compassion Fatigue Short Form (Adam, Boscarino & Figley, 2006)

The Compassion Fatigue Short Scale is a 13-item tool that comprises of an 8-item Burnout and a 5-item Secondary Trauma subscales. Internal consistency estimates are as described: 0.90 for
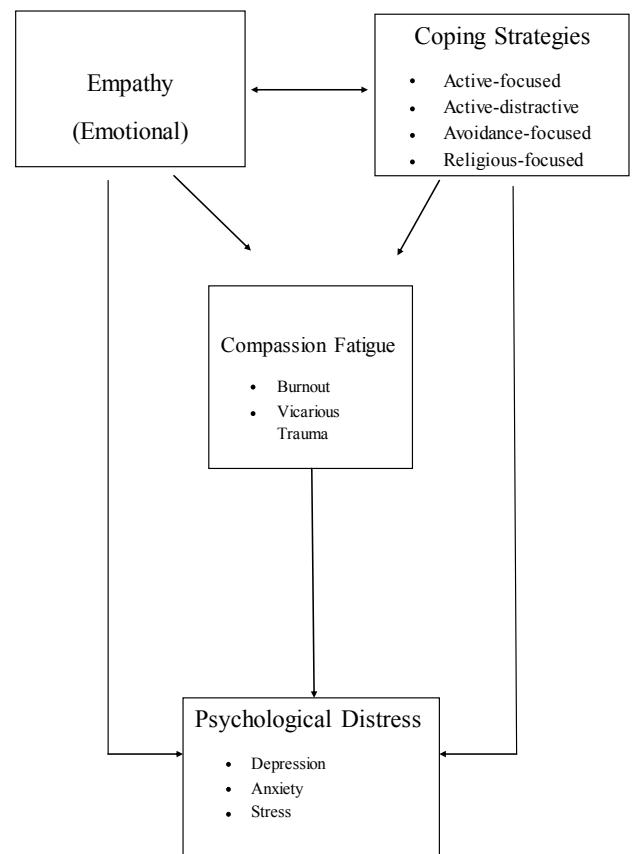
Figure 1. The hypothesized model linking empathy (emotional), coping strategies, compassion fatigue and psychological distress

Table 1.
Mean Scores and Standard Deviations of Age, Education, Years in Services and Monthly Income of the Participants

	Minimum	Maximum	Mean	SD
Age (in years)	20	39	27.26	4.01
Education (in years)	8	18	13.34	1.86
Years in service	1	9	4.07	2.21
Monthly Income (in Rupees)	10,000	400,000	31585	10,200

the Burnout subscale, 0.80 for the Secondary Trauma subscale, and 0.90 for the combined scale. In addition, Adams et al. (2006) give persuasive evidence for factor, concurrent and predictive validity of the Compassion Fatigue Short Scale. Permission for its use and translation was attained. For the present study, Cronbach Alpha for overall scale was 0.89 while for the subscales of burnout and vicarious trauma; it was 0.85 and 0.75 respectively.

Depression Anxiety Stress Scales (DASS)

DASS was used to evaluate the level of psychological distress in Rescue 1122 workers. DASS was developed by P. F. Lovibond and S. H. Lovibond in 1993 containing three scales that are depression, anxiety and stress. The scale consists of 42 items in total. Each scale consists of 14 items each. Depression has a correlation of 0.74 with Beck Depression Inventory and 0.81 with Beck Anxiety Inventory (Lovibond & Lovibond, 1995). It has an internal consistency of 0.89 for depression and 0.947 for anxiety scale (Crawford & Henry, 2003). In the present study, Cronbach Alpha for the overall scale was 0.97. It was 0.91, 0.91 and 0.95 for the subscales of depression, anxiety and stress respectively.

Demographic Information Questionnaire

In order to attain general information, a demographical questionnaire was formulated. It consisted of questions regarding age, education, marital status, no of children, no of dependents, housing (living with the family or living away from the family), total income per year, department, number of years in service, nature of shift, change in the life in the past one year etc. The participants were asked about the exposure to trauma before entering services such as sexual abuse, physical abuse, verbal abuse, accident and terrorist attack. In addition, a list of critical events was included in the questionnaire to assess the frequency of exposure to them during service. The events included: death of a patient, line-of-duty death of a mate, violence against self, violence against others, near-death experiences, death of a child and multiple casualties (Regehr, Hill, Knott, & Sault, 2003). The perceived level of social support from family and friends, workmates and administration was measured on a rating scale consisting of 10 points. Participants satisfaction with their job was also measured on a 3-pointg scale (0 = Not satisfied, 1 = Satisfied to some extent, 2 = Satisfied). Amongst the above-mentioned factors, the ones having significant correlation with psychological distress as indexed by depression, anxiety and stress were concluded as the co-variates in the study, and therefore, later controlled for in the regression analysis phase as they may have diluted the relationship between the variables of interest in the study.

PROCEDURE

Firstly, permission letter to collect data from Rescue 1122 was acquired from Centre for Clinical Psychology, University of the Punjab, Lahore. Subsequently, the Director General of Rescue 1122 was approached, and explained the purpose of the study. Following this, the study was initiated. It employed purposive sampling. The researcher was asked to collect data from four stations, and the administrations of these stations were requested for cooperation.

Individual administrations were carried out. Before a participant started to fill out the questionnaires, he was given necessary instructions in order to aid him. The participants took 25 minutes to fill out the questionnaires on the average. As the participants of this study were rescue workers, they, at times, had to leave on emergencies without completing the forms. They would complete their forms upon returning back from the assigned duty or the next day.

RESULTS

Data analysis was done using Statistical Package for Social Sciences (SPSS, Version 20). Descriptive (Mean, Standard Deviation and Frequency) and inferential statistics were employed in the data analysis. Pearson Correlation and multiple Regression analysis (Hierarchal) were used. Tables 2 and 3 give information on frequencies of level of job satisfaction, perception of social support, emotional empathy, compassion fatigue and psychological distress. Table 4 highlights relationships between emotional empathy, coping strategies, compassion and psychological distress. Table 5 shows the results of hierarchical multiple regression analyses predicting depression, anxiety and stress in rescue 1122 workers from empathy, coping strategies and compassion fatigue (vicarious trauma and burnout). The results of the study are summarized as below:

- Majority of the rescue workers studied exhibited low to average amounts of emotional empathy.

- More than one-third of the participants were experiencing compassion fatigue.

- The findings showed 32.6 and 45.7 percent of the participants were experiencing severe and extremely severe levels of depressive and anxiety symptoms respectively.

- No relationship was found between three factors of emotional empathy (tendency to be moved by other's emotional experiences, emotional responsiveness and susceptibility to emotional contagion) , and vicarious trauma and burnout.

- Significant negative relationships resulted between tendency to be moved by others emotional experiences and depression, anxiety and stress. Adding to that, significant negative relationships between emotional responsiveness and depression, anxiety and stress were found out. Lastly, susceptibility to emotional contagion was negatively correlated to both depression and anxiety.

- Active distractive coping was positively correlated to anxiety while avoidance focused coping was positively correlated to the symptoms of depression, anxiety and stress.

- Depressive symptoms were predicted by exposure to trauma before joining 1122, high level of perceived support from workmates, low tendency to be moved by other's emotional experiences and use of avoidance focused coping.

- Anxiety symptoms were found to be predicted by exposure to trauma before joining 1122, high level of perceived support from workmates, low tendency to be moved by other's emotional experiences, and less use of active-focused and high utilization of avoidance focused coping.

- For stress, exposure to trauma before joining Rescue 1122, high level of perceived support from workmates, low tendency to be moved by other's emotional experiences, utilization of avoidance focused coping and high level of burnout were the predictors in Rescue 1122 workers.

DISCUSSION

The objectives of the present inquiry were to assess the relationship between empathy, coping strategies, compassion fatigue (vicarious trauma and burnout) and psychological distress (depression, anxiety and stress), and to examine the predictive effects of empathy, coping

Table 2.
Frequency and Percentages of Job Satisfaction, Perceived level of support (Family, Workmates, Rescue 1122 Administration) in Rescue 1122 Workers

Characteristics	F	%
Job satisfaction		
Yes (Score: 2)	79	52.7
To some extent (Score 1)	60	40.0
No (Score 0)	10	6.7
Missing	1	0.7
Perceived level of support (Family)		
Low	12	8.0
Average	62	41.3
High	75	50.0
Missing	1	0.7
Perceived level of support (Workmates)		
Low	11	7.3
Average	64	42.7
High	74	49.3
Missing	1	0.7
Perceived level of support (Rescue 1122 administration)		
Low	33	22.0
Average	62	41.3
High	52	34.7
Missing	3	2.0

Table 3.
Frequency and Percentages of Empathy, Burnout, Vicarious Trauma, Depression, Anxiety and Stress in Rescue 1122 Workers

Characteristics	f	%
Emotional Empathy		
Low (Beyond - 1 SD)	54	36
Average (Within 1 SD	87	58.0
High (Beyond +1 SD)	9	6.0
Burnout (Compassion Fatigue)		
Low (Less than 30)	95	63.3
High (30 and above)	55	36.7
Vicarious Trauma (Compassion Fatigue)		
Low (Less than 13)	93	62.0
High (13 and above)	57	38.0
Depression (Psychological Distress)		
Normal (0-9)	63	42.0
Mild (10-13)	12	8.0
Moderate (14-20)	26	17.3
Severe (21-27)	26	17.3
Extremely Severe (28 and above)	23	15.3
Anxiety (Psychological Distress)		
Normal (0-7)	58	38.7
Mild (8-9)	10	6.7
Moderate (10-14)	18	12.0
Severe (15-19)	13	8.7
Extremely Severe (20 and above)	51	37.0

strategies and vicarious trauma on psychological distress. The first hypothesis was that there would be relationship among emotional empathy, coping strategies, compassion fatigue and psychological distress. The findings showed several significant relationships between emotional empathy, coping strategies, compassion fatigue and psychological distress. Therefore, this hypothesis was partially accepted.

No significant relationships were found between the three factors of emotional empathy namely: tendency to be moved by others emotional experiences, emotional responsiveness and susceptibility to emotional contagion, and vicarious trauma. It may be said that in due to the unstable conditions in Pakistan, individuals come across a number of traumatic events either personally or on media. Therefore, they become used to such incidents (Wolpe, 1982). Hence, in rescue workers, who are empathetically aroused upon witnessing traumatic incidents, their empathy may not translate into vicarious trauma, which is a higher stage of arousal (Hoffman, 2008). Moreover, the rescue workers may be too preoccupied with their own life problems, which could economics-related in nature, to experience this level of arousal.

Similarly, no significant correlations were found among the three factors of emotional empathy and burnout. An explanation could be that burnout is considered to be a resultant of factors related to institutional set up such as demanding duties, long hours, etc. (Adam, Boscarino, & Figley, 2008). Therefore, the empathetic arousal of rescue workers, when exposed to traumatic events while doing their duties, may not be related to and lead to burnout.

The findings revealed significant negative relationships between tendency to be moved by others emotional experiences and depression, anxiety and stress. In addition, there existed significant negative relationships between emotional responsiveness and depression, anxiety and stress while susceptibility to emotional contagion was negatively correlated to depression and anxiety. This is in line with previous researches, which showed an inverse relationship between depression and empathy (Thomas et al., 2007). Empathy increases the likelihood of an individual to help and motivates prosocial behavior (de Waal, 2008; Mcdonalds & Messinger, in press). Helping others, in turn, alleviates mood, and have a good impact on the physical and emotional well-being of individuals (Luks, 1988). In this way, empathy may reduce the chances of a person to experience psychological distress. Therefore, rescue workers experiencing empathy may be motivated to help those in need more; thereby, experiencing mood alleviation associated with pro-social behaviors.

Interestingly, it has been suggested that high levels of empathy leads towards psychological distress (Liao et al., 2002; Regehr, 2009). No evidence was this was found in this research maybe because of the fact that majority of rescue workers studied in this research exhibited low to average levels of empathy. It could be purported that empathy beyond a certain level may causes distress and within certain limits reduces distress. Further investigation needs to be done to tap into this possible non-linear relationship between emotional empathy and psychological distress in rescue workers.

In addition, avoidance focused coping was found to be significantly correlated with vicarious trauma, burnout, depression, anxiety and stress. Avoidance focused coping basically comprises of cognitive and behavioral efforts aimed towards minimizing, denying or ignoring dealing with a stressful situation (Holahan, Holahan, Moos et al., 2005). The reason for this positive relationship between avoidance focused coping, and compassion fatigue and psychological distress could be that avoidance focused coping hinders the efforts to deal practically with stressful situations. Therefore, the problem remains in the environment, and hence, the psychological distress due to the problem does not go down (O' Connor & O' Connor, 2003).

In addition, a weak positive correlation was found out between active distractive coping and anxiety, stress and overall, psychological distress. Active distractive coping response may undermine the use of strategies to counter the problem causing distress, and thus leading to psychological distress (Jaracz, Gorna, & Konieczna, 2005). Eisanberth (2013), in contrast, has found out that emotion focused coping or active distractive coping reduces the chance of psychological distress. According to Eisanberth, a single coping strategy is not a good indicator of psychological distress. Therefore, the entire coping profile (which signifies interplay among the coping strategies) needs to be taken into account with regards to psychological distress. In addition, the reliability for the scale of active distractive coping was low. Hence, caution must be exercised in drawing solid conclusions.

Table 4.

Correlations Between the Scales and Subscales of Empathy, Coping Strategies, Compassion Fatigue and Psychological Distress

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Empathy															
1.	TMEE		.37**	.32**	.91**	.46**	.40**	.18*	.60**	-.01	.09	-.34	-.30**	-.25**	-.31
2.	ER			.29**	.67**	.10	-.11	-.16	.18*	-.03	.01	-.30**	-0.29**	.23**	-.29**
3.	SEC				.53**	.10	.08	-.12	.14	.01	.04	-.18**	-.20*	-.15	-.18**
4.	TES					.39**	.26**	.053	.49**	.06	.01	-.39**	-.36**	-.29	-.36**
Coping Strategies															
5.	AFC						.51**	.48**	.61**	.02	-.03	-.1	-.14	-.01	-.09
6.	ADC							.55**	.52**	.12	.04	.15	.17*	.16	.17*
7.	AVFC								.44**	.23**	.25**	.38**	.35**	.38**	.38**
8.	RFC									.12	-.05	-.1	-.10	-.05	-.09
Compassion Fatigue															
9.	VT										.74**	.35**	.32**	.37**	.36**
10.	B											.38**	.32**	.41*	.39**
Psychological Distress															
11.	Dep												.91**	.86**	.97**
12.	Anx													.86**	.96**
13.	Strs														.94**
14.	PDis														
M		71.45	33.08	21.35	125.89	6.66	6.09	5.82	6.52	15.23	25.66	14.19	13.45		44.21
SD		15.52	7.63	4.13	21.48	1.05	.93	.81	1.12	9.40	15.88	10.67	9.47		28.12

Note: TMEE: Tendency to be Moved by Other's Emotional Experiences; ER: Emotional Responsiveness; SEC: Susceptibility to Emotional Contagion; TES: Total Empathy Score; AFC: Active Focused Coping; ADC: Active Distractive Coping; AVFC: Avoidance Focused Coping ; RFC: Religious Focused Coping; VT: Vicarious Trauma; B= Burnout; Dep= Depression; Anx: Anxiety; Strs: Stress; PDis: Psychological Distress
*p<0.05, **p<0.01

The final hypothesis was related to measuring the predictive effect of emotional empathy, coping strategies and compassion fatigue on the three components of psychological distress that is depression, anxiety and stress. Results confirmed the hypothesis. The results exhibited that emotional empathy, coping strategies and compassion fatigue explain significant variance in depression, anxiety and stress after making allowances for exposure to traumatic events before joining Rescue 1122, perceived level of support from family and workmates and satisfaction with job.

The results showed that rescue workers who are moved by other's emotional experiences that is negative or positive experiences are less at risk of psychological distress indexed by depression, anxiety and stress. Individuals, who engage in helping behaviors - motivated by empathetic tendencies - experience helper's high, which is a positive emotion, and it decreases distress (Luks, 1988; Post, 2009). Therefore, rescue workers, who were touched by other people's emotional experiences, may have experienced a relief in their distress by helping them that is they may have experienced helper's high.

It was also found out in the present study that Rescue 1122 workers who use avoidance coping strategies that is they turn away from problems and try to suppress and ignore them are also at an increased risk of developing psychological distress. That is individuals who are engaging in avoidance focused coping are likely to develop symptoms of depression, anxiety and stress. Eisenberth (2013) and Clohessy and Ehler (1999) have similarly shown a relationship between avoidance focused coping and psychological distress. The reason could be that this type of coping does not allow for healthy resolution of the distress-inducing problems and lead to further distress.

The findings also highlighted that active focused coping was a negative predictor of anxiety. The more an individual engages in the active focused, also known as problem focused coping, the less their anxiety was. Active focused coping deals with finding practical solutions to the problem(s) causing distress. Hence, its employment leads in the reduction of anxiety as the constructive steps are taken to deal with the actual problem(s) (Rice, 1999; Collins, 2007).

Burnout was found to predict symptoms of stress. Burnout has been shown to lead to feelings of cynicism and discouragement (Bensen & Magraith, 2005), which could cause a person to feel stressed or add to their stress. Results showed that burnout did not predict depression and anxiety. There has been a debate about the link between depression and burnout. Some researchers purported that depression could be a result of burnout (Papovic, 2009; Figley, 1995). However, the present research did not support this.

Apart from the above mentioned variables, demographic characteristics such as exposure to traumatic events before joining the service was found as a predictor of depression, anxiety and stress. Previous researches have also shown that exposure to traumatic events of personal nature leads to psychological distress as personal traumatic events leave a lasting impact (Evans et al., 2002; Thomas, 2013). Perceived level of support from workmates was also a significant predictor of depression, anxiety and stress. Results signified that the perceived level of support from workmates was positively associated with depression, anxiety and stress.

This may seem counter-intuitive as such as high perception of social support has been linked with psychological well-being. One explanation for this could be that Rescue 1122 workers spend most of their time with their workmates. This, on one hand, helps them form bonds with each other. However, this could also weaken bond with family causing rifts leading to psychological distress. In addition, spending so much with each other as it may also reinforce negative qualities and coping styles such as emotional numbing and avoidance coping in each other, which may further cause damage in intimate relationships leading to distress (Regehr, 2009) Also, distress may precede increase in social support from workmates. Rescue workers may increase the amount of support given to workmates who appear to be distressed. Having discussed the results; the next section details upon the limitations of the present study and the implications of the results.

LIMITATIONS AND SUGGESTIONS

- Social support was found to be an important predictor of psychological distress. Perception of social support was, however, measured using a single question. Future researches should study social support in depth to ascertain the link between social support and psychological distress. In addition, longitudinal studies need to be undertaken to draw inferences about causation.

Table 5.
Hierarchical Multiple Regression Analyses Predicting Depression, Anxiety and Stress in Rescue 1122 Workers from Empathy, Coping Strategies and Compassion Fatigue (Vicarious Trauma and Burnout) (N=150)

Predictor	Depression ΔR^2	B	Anxiety ΔR^2	B	Stress ΔR^2	B
Model I	0.18**		0.22**		0.20**	
Exposure to traumatic events before joining 1122		0.26**		0.35**		0.30**
Perceived level of support from family		-0.11		-.14**		-0.14
Perceived level of support from workmates		0.24**		0.27**		0.27**
Satisfaction with job		0.20*		0.15*		-0.15
Model II	0.25**		0.21**		0.17**	
Tendency to be moved by other's experiences		-.32**		-0.23*		-0.22*
Emotional responsiveness		-0.05		-0.03		0.00
Susceptibility to emotional contagion		0.02		-0.05		-0.02
Active focused coping		0.15		-0.21*		-0.02
Active distractive coping		0.10		0.18		0.06
Avoidance focused coping		0.42**		0.38**		0.39**
Religious focused coping		-0.02		-0.04		0.06
Model III	0.06**		0.05**		0.10**	
Vicarious Trauma		0.14		0.10		0.17
Burnout		0.17		0.16		0.21*
Total R^2	1.08		1.14		1.03	
N	150		150		150	

Note. ΔR^2= R square change value; β: standardized beta; Total R^2: sum of R^2
* p<0.05. **p<0.01

- Some of the participants left the questionnaires incomplete because they had to go on emergencies. They later completed the questionnaires. This may have affected their responses. Therefore, the results of the study need to be viewed with caution.

- Research needs to be done on the families of Rescue 1122 workers as they represent a vulnerable population owing to the risky and busy nature of jobs of their loved ones (Regehr, 2009).

IMPLICATIONS

Rescue 1122 administration should identify workers experiencing vicarious trauma, burnout and psychological distress at clinical significant levels and provide them with therapy in order to offset these high rates and promote mental being, which would in turn increase their productivity, and performance. In addition, trainees and existing workers should be educated about psychological distress and adaptive coping strategies, so that they are aptly able to identify the symptoms, and can start working on them, when and if, they emerge. Workers' coping patterns should be identified during the training, and work on promoting adaptive coping strategies should be done by the administration on priority basis (Papovic, 2009).

CONCLUSION

The study dealt with assessing the relationships among empathy, coping strategies, compassion fatigue and psychological distress. It also measured the predictors of psychological distress in Rescue 1122 workers. Use of avoidance focused coping was found to be detrimental, and led to the development of psychological distress in the workers. Less tendency to be moved by other experiences also put workers at the risk of psychological distress. This study identified exposure to traumatic events before coming into service as a risk factor for psychological distress. The results highlighted the need for Rescue 1122 to improve its set up. Rescue 1122 authorities need to train its workers to minimize the use of avoidance focused coping, and work towards improving their overall satisfaction with job.

Authors' Note

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