

Psychological Capital and Mental Health of Rescue Workers

**Maryam Haleem, Sobia Masood, Mudassar Aziz,
and Humaira Jami**

Quaid-i-Azam University

The current study was conducted to explore the relationship between psychological capital and mental health of rescue workers. A cross-sectional survey research design was employed to collect data from 502 male rescue workers with their age ranging from 22 to 44 years by using purposive-convenience sampling. Urdu versions of Mental Health Inventory (Khan, Hanif, & Tariq, 2015) and Psychological Capital Questionnaire (Self-Rater Short Form; Abbasi, 2015) were administered on the sample. Stress appraisal of the critical incidence was used as a control variable and measured through a single item. Findings revealed that among all dimensions of psychological capital that is, efficacy, resilience, hope, and optimism significantly positively predicted psychological well-being, a sub-dimension of mental health. For the psychological distress dimension of mental health, efficacy, resilience, and optimism appeared to be significant and negative predictors. Thus, results suggested that rescue workers high on personal resources are also having better mental health.

Keywords. Rescue workers, mental health, psychological capital, efficacy, hope, optimism, resilience.

Over a decade due tenacious upsurge of terror, violence, security lapse, and political unrest in Pakistan have increased the prevalence of mental health problems (Gadit, 2005; Khalily, 2011). Exposure to challenging circumstances has led to mental health problems that have affected the whole society (Khalily, Fooley, Hussain, & Bano, 2011), but one particular group that has been directly affected as consequences of terrorism is rescue workers (Razik, Ehring, & Emmelkamp, 2013). Mental health of rescue workers is an important

Maryam Haleem, Sobia Masood, Mudassar Aziz, and Humaira Jami, National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan.

Mudassar Aziz is currently in Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology, Karachi.

Correspondence concerning this article should be addressed to Maryam Haleem, National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan. Email: maryammphil14@nip.edu.pk

concern regarding the nature of their work as their work has been highlighted as a stressful occupation (Beaton, Murphy, Pike, & Corneil, 1997; Cardozo et al., 2012). A rescue worker is any person who puts his life at risk to protect others' life. Earlier studies have identified the prevalence of mental health problems in emergency workers, for example, post-traumatic stress disorder (PTSD) ranged between 15% and 42% (Bennett et al., 2004); while, anxiety and depression are reported between 11% to 16% approximately (Razik et al., 2013). The prevalence of emotional disorders is also high among rescue workers (Ehring, Razik, & Emmelkamp, 2011) as mental health problems are indicators of psychological distress. Findings also revealed that the history of past trauma, severity of incident, and work related stressors are associated with symptoms of PTSD (Ehring et al., 2011). One possible factor that can buffer the risk for mental health problems is recognized as psychological capital (PsyCap; Avey et al., 2010). These PsyCap resources encompassing resilience, efficacy, hope, and optimism have been associated to psychological well-being and work related outcomes (Luthans, Avolio, Avey, & Norman, 2007; Luthans, Youssef, & Avolio, 2007). However, there is scarcity of research in relation to the role of PsyCap and mental health in helping professions. Hence, the present study aims at exploring the predictive role of PsyCap in psychological well-being and distress.

Comprehensive, yet, brief explanations for major constructs of present study are presented in subsequent section. Mental health is defined as "a positive mental state in which one realizes his/her capabilities, manages the life stresses, put effort effectively, and efficiently, and is competent enough to put some contribution to his/her society" (World Health Organization, 2010). Mental health model (Veit & Ware, 1983) theorizes the construct as having two dimensions that is, psychological wellbeing and psychological distress. Mental health is a hierarchical factor composed of two lower order factors Psychological Distress and Psychological Well-being. Psychological distress explains negative mental health states and psychological well-being consists of positive mental health states (Veit & Ware, 1983). According to them, both psychological distress and psychological wellbeing are further comprised of anxiety, depression, loss of behavioral/emotional control, general positive affect, emotional ties, and life satisfaction.

According to Deci and Ryan (2008) psychological wellbeing is conceptualized as combination of hedonic well-being which refers to happiness in which positive affect is present and negative affect is absent, and the eudemonic well-being which leads to optimal functioning and actualizing potentials in individual and social life

domains. Apart from hedonic and eudemonic perspective well-being contributes to prevention and recovery of physical illness and diseases and plays a vital role in increasing life expectancy (Vazquez, Hervas, Rahona, & Gomez, 2009). Psychological well-being is found to have outcomes related to one's work as well as subjective life. A considerable number of researches have explored the relationship between well-being, mental health, and work (Avey, Reichard, Luthans, & Mhatre, 2011; Krasikova, Lester, & Harms, 2015; Naude & Rothmann, 2006).

Psychological distress is commonly known as an indicator of mental health, and describes negative mental health states. Literature (see Drapeau, Marchand, & Beaulieu-Prevost, 2011) supports the evidence that the concept of psychological distress consists of undifferentiated symptoms of stress, depression, and general anxiety symptoms to personality traits, functional disabilities, and behavioral problems. According to Veit and Ware (1983), psychological distress comprised the negative affective states of anxiety, depression, and loss of behavioral/emotional control. In emergency situations rescue workers are employed in extreme stressful conditions which lead to develop anxiety and depression (Mirowsky & Ross, 2002; Wheaton 2007), that results in psychological distress (Liao et al., 2002; Regehr, 2009; Sim, 2011). Stress is defined as a "particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangers his or her well-being" (Lazarus & Folkman, 1984, p. 19). Many studies have revealed the predictors and prevalence of distress and other mental health problems. Freedy, Saladin, Kilpatrick, Resnick, and Saunders, (1994) found resources loss as significant predictor to develop distress after a disaster. A meta-analysis was carried out on risk prevalence and correlates of PTSD in rescuers around the world. The combined prevalence of 10% for PTSD was noted worldwide. Findings suggested that rescuers are more susceptible to develop mental health problems than general population. In present research, stress appraisal of critical incident was considered as a predictor of mental health of rescue workers.

With the emergence of positive psychology, Luthans (2002) presented the idea of positive organizational behavior (POB) to workplace. The application of POB focused on personal resources and strengths, aimed at improving performance and well-being of individuals. The basic idea of PsyCap represents positive organizational behavior approach, which stresses upon capitalizing strengths to overcome and achieve intended changes in individuals' behaviors, thoughts, and emotions. In the present study, conservation

of resource theory is used as theoretical source for antecedent of positive PsyCap resources and wellbeing. The conservation of resource theory provides explanation for stress and successful adaptation in individuals when encountered by stressful incidents. The basic principle of the theory is that workers struggle to attain, preserve, foster, and keep the things they centrally value for, and when resources are threatened stress occurs (Hobfoll, 1988). Furthermore, a resource can be anything that is central to individuals and promotes their well-being. Centrally valued effects mean social relations in organization, health, self-defense, positive sense of self and well-being. In order to buffer against stress these resources are considered as major motivational concepts. Conservation of resources emphasize on positive change and adaptation in appearance of trauma and loss. Furthermore, protection and accumulation of resources decrease the vulnerability to stress. Theory proposes that evolving process of accumulation of resources build resource caravans. These caravans are created when individual possess available resources and continue to accumulate and gain additional resources. Resource Caravans can be defined as linking and accumulating resources.

According to Luthans et al. (2007) four state like dimensions (hope, efficacy, resilience, and optimism) as whole refers to PsyCap. The construct of PsyCap can be used as a framework for understanding the psychological resources that individuals use to overcome obstacles and setbacks in their life.

Self-efficacy is defined for workplace by Stajkovic and Luthans (1998; p. 66) as “one’s conviction (or confidence) about his or her abilities to mobilize the motivation, cognitive resources or courses of action needed to successfully execute a specific task within a given context.” It encourages an individual to confront difficulties and challenges to utilize one’s strengths and skills to overcome those challenges. Efficacy serves as considerable indicator to function effectively under fear, challenge, and stress, mainly due to one’s perception of personal control (Bandura & Locke, 2003). Numerous studies (Borgogni, Dello-Russo, Miraglia, & Vecchione, 2013; Hanjani, Dastres, Mirshekari, & Moniri, 2016; Pisanti et al., 2015; Salanova, Peiró, & Schaufeli, 2002; Shakespeare-Finch, Rees, & Armstrong, 2014) in context of occupational stress have shown the strong associations between efficacy and psychological well-being/distress.

Hope is defined as a positive motivational state that is based on an interactively derived sense of successful agency (goal-oriented energy) and pathways (planning to meet goals) (Snyder, Irving, & Anderson, 1991). Adams et al. (2002) studied hope in organizational

setting and found that participants with higher level of hope were inclined to be more successful as compare to participants with lower levels of hope. In addition, to earlier studies in workplace and its relationship to hope it can be said that hope is related to work attitudes. Youssef and Luthans (2007) found that hope in employees is related to their satisfaction, organizational commitment, and work happiness in a cross-sectional survey. Hope has shown to have buffering effect on distress in adverse circumstances. Studies have shown hope as a negative predictor of psychological distress and burnout (Horton & Wallander, 2001; Mitchelmor, 2013); while, constructive predictor of wellbeing and positive affect (Ciarrochi, Parker, Kashdan, Heaven, & Barkus, 2015).

Optimism is an explanatory style that attributes positive actions to subjective, stable, and universal reasons; whereas attributes negative events to external, momentary, and situation specific factors (Seligmen, 2002). Optimism found to be correlated with lower levels of depression, fewer mood disturbances, and negative interpersonal interactions. Optimism has been shown to predict less negative affect, depression, and stress during major life changes (Brissette, Scheier, & Carver, 2002). A study on police officers found a positive correlation between optimism and psychological well-being (Padhy, Chelli, & Padiri, 2015). Youssef and Luthans (2007) stated that optimism of employees is related to their job satisfaction, work happiness, and performance appraisal.

Resilience is the ability to bounce back from adversity. PsyCap resiliency is a dynamic, flexible, and developable psychological capacity or strength. According to positive psychology, resilience is characterized as positive coping and adaptation in danger or adversity (Masten, 2001; Masten & Reed, 2002). Positive and clinical psychological literature support the role of resiliency in increasing several aspects of human functioning, particularly in adaptation and posttraumatic coping (Richardson, 2002). The explanation of resilience shows that individuals who are high at construct of resiliency not only adapt the stressful situations, still are motivated to learn from challenging experiences (Youssef & Luthans, 2007).

It is essential for emergency personnel to have sound psychological health in relation to their profession. The mental health of emergency workers has been the rising concern. Literature (Higuchi et al., 2016, Razik et al., 2013) provided evidence in favor of mental health problems among emergency and helping professions. PsyCap can affect mental health through many potential means. Extensive research has shown that PsyCap has been associated with several behavioral, dispositional, and occupational outcomes such as

psychological well-being and happiness (Avey, Luthans, Smith, & Palmer, 2010; Culbertson, Fullagar, & Mills, 2010). The shift of PsyCap concept from work domain to health domain is introduced for first time by Luthans, Youssef, Sweetman, and Harms (2013). They suggested that PsyCap can be related to health related outcomes apart from work related outcomes. Luthans et al. (2013) conducted a cross-sectional study to study employees' psychological well-being through PsyCap. They found that domain specific satisfaction is associated with domain specific PsyCap, that add to high PsyCap and well-being over time. Krasikova et al. (2015) examined the effects of work related psychological capital on health outcomes in soldiers. They found that soldiers with higher level of PsyCap before deployment were at lesser risk to diagnose with mental health problems (PTSD, anxiety, & depression) and substance abuse problems in comparison to their counterparts.

Preceding literature showed that most studies on rescue workers have focused traditionally on negative dimensions of psychological health and quality of life than positive dimensions (Paton et al., 2003), such as PTSD, burnout, and stress (Schaufeli & Bakker, 2001; Turner, Barling, & Zacharatos, 2002). Previous literature piloted little or no research on rescue workers positive psychological resources, strengths, and mental health, in Pakistan. To date, only few published studies in Pakistan have investigated the mental health problems of rescue workers. These studies were conducted on the predictors and prevalence of burnout, anxiety, PTSD, and depression on earthquake recovery workers (Ehring et al., 2011), correlates of distress in rescue 1122 workers (Ahmed et al., 2015), and the prevalence and predictors of mental health problems in relation to psychological consequences of terrorist attacks on rescue workers (Razik et al., 2013). The present research was taken as an initiative to investigate the role of positive resources in relation to mental health among the rescue workers.

Hypotheses

The present study was carried out to investigate subsequent hypotheses:

1. Psychological capital positively predicts psychological well-being of rescue workers.
2. Psychological capital negatively predicts psychological distress of rescue workers.

Method

Sample

The sample for the main study comprised of 502 male rescue workers, including firefighters (159, 21.0%), emergency medical staff (99, 15.9%), ambulance drivers (123, 27.0%), emergency/disaster rescue workers (64, 12.7%), and shift/station incharge (57, 17.5%). The data were collected from rescue 1122 stations based in Rawalpindi ($n = 116$), Murree ($n = 65$), Wah ($n = 15$), Jhelum ($n = 50$), Sarghoda ($n = 130$), Chinniot ($n = 11$), Khoshab ($n = 50$), and Faisalabad ($n = 120$). The respondents' age ranged from 22 to 44 years ($M = 30.49$, $SD = 3.54$), while, job experience ranged from 1 to 12 years ($M = 6.37$, $SD = 2.10$), and their monthly income ranged from PKR 16000 to 35000 per month ($M = 26115.45$, $SD = 3417.26$). Purposive sampling was used to access the participants and only those rescue workers were included in the research that had been deployed to operations in any emergency or disaster situation. Control room staff was not included in the present study.

Instruments

Mental Health Inventory (MHI). Veit and Ware (1983) developed MHI but in the present study Urdu version of MHI was used (Khan et al., 2015). MHI consists of 38 items, consisting of two subscales: Psychological Distress comprised of 22 items and Psychological Well-being constituting 16 items. Respondents had to indicate how they had been feeling during the last month on 6-point rating scale with response options ranging from 1 = *all of the time* to 6 = *none of the time*. To obtain composite score of mental health index the items of Psychological Distress Subscale can be reverse scored. Total scores for Psychological Distress subscale ranged from 22 to 132; while, for Psychological Well-being subscale ranged from 16 to 96. High score on Psychological Distress subscale indicate negative mental health state, while higher score on Psychological Well-being subscale indicate positive mental health state. The raw score range for MHI was 38-226 and high score indicate better mental health. The translation and validation study in Pakistan showed high reliability of subscales .95 for Psychological Well-being subscale and .96 for Psychological Distress subscale; respectively (Khan et al., 2015). In the present study, alpha coefficient of .91 was achieved for the subscale of Psychological Distress and .88 for the subscale of Psychological Well-being.

Psychological Capital Questionnaire (PCQ) Self-Rater Short Form. PCQ (originally developed by Luthans et al. 2007 and translated by Abbasi, 2015) consists of four subscales including Hope, Optimism, Efficacy, and Resilience adapted from previous work on these variables (Parker, 1998; Scheier & Carver 1985; Snyder et al. 1996; Wagnild & Young 1993). After getting permission from original author 12 items for Self-Rater Short Form Urdu were taken from Urdu translated self-rater version PCQ-24 (Luthans et al., 2007). The Self-Rater Short-Form consists of 12 items with following number of items for each of the four subscales; in which items 1-3 measure Efficacy, items 4-7 measure Hope, items 8-10 measure Resilience, and items 11-12 measure Optimism. Responses were obtained on a 6-point rating scale ranging from 1 = *Strongly Disagree* to 6 = *Strongly Agree*. High scores for subscales reflect higher self-efficacy, hope, resilience, and optimism. The PCQ has good internal consistency for composite score and each subscale (Efficacy = .92, Hope = .87, Resilience = .83, Optimism = .78) and composite alpha coefficient of .95 across various organizations and occupations (Avey, Luthans, & Youssef, 2010). In the present study, Cronbach alpha of .85 was acquired for the total PCQ; while, reliability of subscales of PCQ ranged from .67 to .76.

Demographic sheet. The demographic sheet for the study comprised of different demographic variables including age, education, marital status, family system, nature of job, monthly income, job experience, duty shift, duty hours, number of children, critical incident, and stress appraisal. To measure stress appraisal one item was used which stated that: *Think of previous most challenging incidents, and to what extent did you anticipated them stressful?* Responses were rated on 3-point Likert scale ranging from least stressful to most stressful.

Procedure

The present study was quantitative survey based research design. Data were collected using purposive sampling. District Emergency Officers were approached, and explained the purpose of present study to seek permission. Ethical protocol was followed before data were collected. Therefore, participants were informed about the voluntary participation, anonymity, and confidentiality of data, right to withhold any information that they do not want to disclose, and their right to quit at any moment if they wanted so. Individual administrations were carried out through several ways like some rescue workers were

approached in their waiting room, more were approached at the time of exchange of their duties or shifts (i.e., exchange of morning and night shifts) and some were contacted at their points of duty. Average time taken by the participants to fill out questionnaires was 20 minutes. A total of 667 questionnaire booklets were distributed whereas 557 questionnaires were returned. The response rate was 83.5%. Out of 557 questionnaire booklets, 55 were discarded because of similar patterns and unanswered responses.

Results

In order to meet the goals of present study statistical analyses were computed. In order to observe the direction of relationship between PsyCap subscales and MH subscales, Pearson Product Moment correlation was calculated. Table 1 shows significant inter subscale and subscale-total correlations.

Table 1

Correlation between Dimensions of Psychological Capital, Psychological Distress, and Psychological Well-being (N = 502)

Variables	1	2	3	4	5	6	7
1. Psychological Capital	–	.80**	.58**	.75**	.74**	-.44**	.34**
2. Self-Efficacy		–	.56**	.44**	.49**	-.40**	.31**
3. Hope			–	.51**	.53**	-.34**	.30**
3. Resilience				–	.50**	-.32**	.19*
5. Optimism					–	-.34**	.29**
6. Psychological Distress						–	-.68**
7. Psychological Well-being							–

* $p < .05$. ** $p < .00$.

Table 1 shows significant inter subscale and subscale-total correlations. PsyCap and its four dimensions self-efficacy, resilience, hope, and optimism are significantly positively correlated; this reflects the construct validity of measure. Self-efficacy, resilience, hope, and optimism are significantly positively correlated with psychological well-being. This indicates that higher PsyCap dimensions are associated with greater propensity to increase well-being. On the other hand self-efficacy, resilience, hope, and optimism significantly negatively correlated with psychological distress. This indicates the tendency that as level of PsyCap dimensions increases the level of distress tends to decrease. By considering the strength of relationship between predictor and outcome variables, the predictive role of PsyCap dimensions regression analysis is computed to examine the

extent of variance in outcome variables psychological distress and psychological well-being, which would be shared by predictor variables (hope, efficacy, resilience and optimism) along demographic variable.

Correlations clearly showed the significant relationship of psychological distress and psychological well-being, with all the study variables. Therefore, in order to explore the variance explained by each variable in predicting psychological distress and psychological well-being, among rescue workers step wise regression was carried out. Results for stepwise regression are described in Table 2 and 3.

Table 2

Multiple Regression Analysis Predicting Psychological Distress from Stress, Efficacy, Hope, Resilience, and Optimism (N = 502)

Predictors	R^2	ΔR^2	β	p	$F(df)$
Step 1					
Constant	.06	.06			.36.02*** (1,500)
Stress appraisal (control variable)			.25	.00	
Step 2					
Constant	.20	.14			65.60*** (1,499)
Stress appraisal			.21	.00	
Efficacy			-.37	.00	
Step 3					
Constant	.23	.02			50.09*** (1,498)
Stress appraisal			.20	.00	
Efficacy			-.29	.00	
Optimism			-.17	.00	
Step 4					
Constant	.24	.00			39.31** (1,497)
Stress appraisal			.19	.00	
Efficacy			-.26	.00	
Optimism			-.13	.00	
Resilience			-.11	.01	

* $p < .05$. ** $p < .01$. *** $p < .001$.

The stepwise regression presented in Table 2 showed that psychological distress a domain of mental health is predicted from dimensions of PsyCap (e.g., efficacy, optimism, hope, and resilience) and stress appraisal. All the variables were entered simultaneously and results showed that all variables are significant predictors of psychological distress, except hope. Stress appraisal is found to be significant predictor of mental health, causing 6% overall variance in regression model. In step 2, regression model accounted for by 20% variance. Efficacy is found to be the second strongest predictor of

psychological distress. Step 3 overall accounted for 23% variance and optimism also significantly negatively predicted psychological distress. Step 4 on the whole explained 24% variance in overall model where resilience significantly predicted psychological distress. Stress appraisal is found to be a significant positive predictor of psychological distress; whereas, efficacy, optimism, and resilience significantly negatively predicted psychological distress; hence, providing full support for hypotheses 1 of the present study.

Table 3
Multiple Regression Analysis Predicting Psychological Well-Being from Stress, Efficacy, Hope, Resilience, and Optimism (N = 502)

Predictors	R ²	ΔR ²	β	p	F(df)
Step 1					
Constant	.04	.04			24.09*** (1, 500)
Stress appraisal (control variable)			-.21	.00	
Step 2					
Constant	.12	.08			36.58*** (1,499)
Stress appraisal			-.17	.00	
Efficacy			.28	.00	
Step 3					
Constant	.15	.02			29.30*** (1,498)
Stress appraisal			-.16	.00	
Efficacy			.20	.00	
Optimism			.17	.00	
Step 4					
Constant	.15	.00			33.52** (1,497)
Stress appraisal			-.16	.00	
Efficacy			.15	.00	
Optimism			.13	.01	
Hope			.12	.02	

*p < .05. **p < .01. ***p < .001.

Stepwise regression presented in Table 3 indicated that positive domain of mental health that is psychological well-being is carried out with PsyCap (e.g., efficacy, optimism, and resilience) and stress appraisal as predictors. All the variables were entered simultaneously and results indicated that all variables are the significant predictors of psychological well-being, except resilience. Stress appraisal is found to be significant negative predictor of psychological well-being, causing 4% overall variance in regression model. In step 2 regression model accounted for by 12% variance and efficacy is found to be strongest predictor of psychological well-being. Step 3 overall accounted for 15% variance and optimism significantly positively

predicted psychological well-being. Step 4 as a whole explained 15% variance in overall model and hope significantly positively predicted psychological well-being. Stress appraisal is found to be significant negative predictor of psychological well-being, whereas, efficacy, optimism, and resilience significantly positively predicted psychological well-being; hence, providing full support for hypothesis 2 of the present study.

Discussion

The present study aimed to explore the predictive role of PsyCap for mental health in a sample comprising male rescue workers. Efficacy, hope, resilience, optimism, and stress appraisal were assessed as correlates and predictors. Results indicated sufficient evidence with relevance to hypothesis of the study that PsyCap dimensions (hope, efficacy, and optimism) positively predict psychological well-being of rescue workers. It was further revealed that participants who scored higher on PsyCap were expected to have enhanced psychological well-being. This evidence is supported by Luthans et al. (2013) establishing the influence of PsyCap on health related outcomes and psychological well-being. According to Krasikova et al. (2015), PsyCap is a positive predictor of mental health of soldiers.

Regression analysis showed the predictive role of PsyCap dimensions including hope, efficacy, optimism, and psychological well-being. Among all dimensions of PsyCap, efficacy was found to be the strongest positive predictor for psychological well-being subscale of Mental Health Inventory. Hope and optimism also acted as positive predictors for psychological well-being; while, resilience appeared to be a nonsignificant predictor of psychological well-being. According to Luthar, Lyman, and Crossman, (2014), resilience can be low in certain circumstances as it is a circumspect construct (e. g., emotional resilience), rather than a comprehensive trait like factor. On the other hand resilience, efficacy, and optimism significantly negatively predicted psychological distress. A study on resilience has shown that it has state like quality, and positive emotions boost resilience when confronting negative events (Tugade et al., 2004). Positive and clinical psychological literature support the role of resiliency in increasing several aspects of human functioning, particularly in adaptation and posttraumatic coping (Masten, 2001; Masten & Reed, 2002; Richardson, 2002).

Results of the present study are consistent with previous literature (Culbertson et al., 2010; Kariskova et al., 2015; Luthans et al., 2013;

Sing & Mansi, 2009); thereby, supporting the hypotheses of present study. In Pakistan, rescue workers with higher PsyCap resources are likely to have better mental health. It is evident from present results that positive psychological resources contribute positively to psychological well-being. Findings of the present study showed that rescue workers in Pakistan possess higher level of PsyCap resources. One such possible explanation for high scores on PsyCap and psychological well-being can be spiritual/religious beliefs. The participants of this research might have observed religion as a strong source of motivation to serve humanity in need. As religion transforms cognitions into more positive thoughts by means of belief system and all religions taught to serve humanity in face of adversity and human sufferings. The role of religious and spiritual beliefs in reducing negative outcomes (e.g., distress) is evident from previous researches (Ano & Vasconcelles, 2005; McColl et al., 2000; Pargament & Ano, 2006; Sonnentag & Grant, 2012; Yasien, Abdul-Nasir, & Shaheen, 2016). Other factors that have contributed in positive resources and well-being of rescue workers are norms and values of collectivistic culture, sense of community, sense of compassion, coping, and relatedness towards others.

Limitations and Suggestions

Although findings of our study contribute to mental health and positive psychology literature in the context of rescue work however, there are some limitations as well that should be acknowledged. The first limitation of the present study was that the sample included rescue workers from only Rescue 1122. Future research can be done on diverse populations regarding helping professions (e.g., nursing, police, mental health professionals, soldiers, and social workers from other humanitarian organizations) to increase the generalizability of findings. The other shortcoming of our study was disproportion of the sample regarding gender as only male rescue workers participated. So gender based comparisons cannot be drawn. Another possible shortcoming could be social desirability, which can cause inflated responses in terms of positive responses. Prospected future researches are recommended to replicate this study so generalizability of findings can be strengthened.

Implications

The findings of present study support our hypotheses. PsyCap resource are state like that can be changed and developed by means of

instructional programs (Luthans et al., 2007), and through PsyCap Intervention Training Model (Luthans, Avey, Avolio, Norman, & Combs, 2006). With reference to practical perspective the findings of present study will help rescue 1122 to make interventions associated to health related (e.g., mental health) domain which has been rarely considered before. The findings can provide organizations to develop psycho education programs and workshops in relation to positive PsyCap resources encompassing efficacy, hope, resilience, and optimism to cope effectively with stressful incidents.

Conclusion

It is concluded based on the results of present study that PsyCap dimensions (efficacy, hope, and optimism) positively predicted psychological wellbeing. Rescue workers exhibited high level of PsyCap and psychological well-being a positive dimension of mental health. On the other hand, efficacy, resilience, and optimism significantly negatively predicted psychological distress. Furthermore, our findings show that rescue workers possess psychological resources, and that they cope well with psychological distress. Prospective research is needed; however, our results have highlighted that strength of positive attributes that can be retained, accumulate, and foster, could be a part of interventions, and training in high risk helping profession. The findings of present study provide support and underscore the need for interventions aimed at enhancing personal resource capacities (efficacy, hope, resilience, and optimism), PsyCap and mental health of rescue workers. The predictive role and relationship of PsyCap and its dimensions (hope, efficacy, resilience, and optimism) have been consistent throughout the study.

References

- Abbasi, S. (2015). *Relationship between autonomy and work engagement among small business entrepreneurs: Role of emotions and psychological capital* (Unpublished M. Phil Dissertation). National Institute of Psychology, Quaid-i-Aazam University, Islamabad, Pakistan.
- Adams, V. H., Snyder C, R., Rand, K. L., King, E. A., Sigman , D. R., & Pulvers, K. M. (2002). Hope in the work place. In R. Giacalone & C. Jurkiewicz (Eds.), *Workplace spirituality and organization performance* (pp. 367-377). New York: Sharpe.
- Ano, G. G., & Vasconcelles, E. B. (2005). Religious coping and psychological adjustment to stress: A meta-analysis. *Journal of Clinical Psychology, 61*(4), 461-480.

- Avey, J. B., Luthans, F., Smith, R. M., & Palmer, N. F. (2010). Impact of positive psychological capital on employee well-being over time. *Journal of Occupational Health Psychology, 15*(1), 17-25. doi:10.1037/a0016998
- Avey, J. B., Reichard, R. J., Luthans, F., & Mhatre, K. H. (2011). Metaanalysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance. *Human Resource Development Quarterly, 22*(2), 127-152.
- Bandura, A., & Locke, E. A. (2003). Negative self-efficacy and goal effects revisited. *Journal of Applied Psychology, 88* (1), 87-96.
- Beaton, R. D., Murphy, S. A., Pike, K. C., & Corneil, W. (1997). Social support and network conflict in firefighters and paramedics. *Western Journal of Nursing Research, 19*(3), 297-313.
- Bennett, P., Williams, Y., Page, N., Hood, K., & Woollard, M. (2004). Levels of mental health problems among UK emergency ambulance workers. *Emergency Medicine Journal, 21*(2), 235-236.
- Borgogni, L., Dello Russo, S., Miraglia, M., & Vecchione, M. (2013). The role of self-efficacy and job satisfaction on absences from work. *European Review of Applied Psychology, 63*(3), 129-136.
- Brissette, I., Scheier, M. F., & Carver, C. S. (2002). The role of optimism in social network development, coping, and psychological adjustment during a life transition. *Journal of Personality and Social Psychology, 82*(1), 102-120. doi: 10.1037//0022-3514.82.1.102
- Cardozo, B. L., Crawford, C. G., Eriksson, C., Zhu, J., Sabin, M., Ager, A., & Olf, M. (2012). Psychological distress, depression, anxiety, and burnout among international humanitarian aid workers: A longitudinal study. *PLoS One, 7*(9), 4494-4498. doi: 10.1371/journal.pone.0044948
- Ciarrochi, J., Parker, P., Kashdan, T. B., Heaven, P. C., & Barkus, E. (2015). Hope and emotional well-being: A six-year study to distinguish antecedents, correlates, and consequences. *Journal of Positive Psychology, 10*(6), 520-532. doi:10.1080/17439760.2015.1015154
- Culbertson, S. S., Fullagar, C. J., & Mills, M. J. (2010). Feeling good and doing great: The relationship between psychological capital and well-being. *Journal of Occupational Health Psychology, 15*(4), 421-434. doi:10.1037/a0020720
- Deci, E. L., & Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: An introduction. *Journal of Happiness Studies, 9*(1), 1-11.
- Drapeau, A., Marchand, A., & Beaulieu-Prévost, D. (2011). Epidemiology of psychological distress. *Mental Illness. Understanding, Prediction, and Control, 4*, 105-134. doi:10.5772/30872
- Ehring, T., Razik, S., & Emmelkamp, P. M. (2011). Prevalence and predictors of posttraumatic stress disorder, anxiety, depression, and burnout in Pakistani earthquake recovery workers. *Psychiatry Research, 185*(1), 161-166. doi: 10.1016/j
- Field, A. P. (2009). *Discovering statistics using SPSS*. London: SAGE.

- Freedly, J. R., Saladin, M. E., Kilpatrick, D. G., Resnick, H. S., & Saunders, B. E. (1994). Understanding acute psychological distress following natural disaster. *Journal of Traumatic Stress, 7*(2), 257-273.
- Gadit, A. A. (2005). Disaster, mental health and rescuing medical professionals. *Journal of Ayub Medical College, 17*(4), 1-2.
- Hanjani, H. M., Dastres, M., Mirshekari, H. R., & Moniri, A. Z. (2016). Relationship between self-efficacy and well-being in staffs of addiction treatment centers. *Electronic Journal of Biology, 6*, 21-34.
- Higuchi, Y., Inagaki, M., Koyama, T., Kitamura, Y., Sendo, T., Fujimori, M., & Yamada, N. (2016). A cross-sectional study of psychological distress, burnout, and the associated risk factors in hospital pharmacists in Japan. *BMC Public Health, 16*(1), 1-4. doi: 10.1186/s12889-016-3208-5
- Hobfoll, S. E. (1988). *The ecology of stress*. Washington, DC: Hemisphere.
- Horton, T. V., & Wallander, J. L. (2001). Hope and social support as resilience factors against psychological distress of mothers who care for children with chronic physical conditions. *Rehabilitation Psychology, 46* (4), 382-399. doi:10.1037//0090-5550.46.4.382
- Khalily, M. T. (2011). Mental health problems in Pakistani society as a consequence of violence and trauma: A case for better integration of care. *International Journal of Integrated Care, 11*(4).
- Khalily, M. T., Fooley, S., Hussain, I., & Bano, M. (2011). Violence, psychological trauma, and possible acute post-traumatic interventions in Pakistani society. *Australasian Journal of Disaster and Trauma Studies, 1*, 1-9.
- Khan, M. J., Hanif, R., & Tariq, N. (2015). Translation and validation of Mental Health Inventory. *Pakistan Journal of Psychological Research, 30*(1), 65-79.
- Krasikova, D. V., Lester, P. B., & Harms, P. D. (2015). Effects of psychological capital on mental health and substance abuse. *Journal of Leadership & Organizational Studies, 8*, 77-89. doi:10.1177/1548051815585853
- Liao, S. C., Lee, M. B., Lee, Y. J., Weng, T., Shih, F. Y., & Ma, M. H. (2002). Association of psychological distress with psychological factors in rescue workers within two months after a major earthquake. *Journal of the Formosan Medical Association, 101*(3), 169-176.
- Luthans, F. (2002). Positive organizational behavior: Developing and managing psychological strengths. *The Academy of Management Executive, 16*(1), 57-72. doi:10.5465/AME.2002.6640181
- Luthans, F., Avey, J. B., Avolio, B. J., Norman, S. M., & Combs, G. M. (2006). Psychological capital development: Toward a microintervention. *Journal of Organizational Behavior, 27*(3), 387-393. doi: 10.1002/373
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology, 60*(3), 541-572.

- Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital: Developing the human competitive edge*. Oxford: Oxford University Press.
- Luthans, F., Youssef, C. M., Sweetman, D. S., & Harms, P. D. (2013). Meeting the leadership challenge of employee well-being through relationship PsyCap and health PsyCap. *Journal of Leadership & Organizational Studies*, 20(1), 118-133. doi:10.1177/1548051812465893
- Luthans, F. (2005). *Organizational Behavior: An evidence based approach* (12th ed.). New York: Paul Ducham.
- Luthar, S. S., Lyman, E. L., & Crossman, E. J. (2014). Resilience and positive psychology. In M. Lewis & K. D. Rudolph (Eds.), *Handbook of developmental psychopathology* (pp. 125-140). New York: Springer.
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56(3), 227-238. doi:10.1037//0003-066x.56.3.227
- Masten, A. S., & Reed, M., G. J. (2002). Resilience in development. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 74-88). Oxford, UK: Oxford University Press.
- McColl, M. A., Bickenbach, J., Johnston, J., Nishihama, S., Schumaker, M., Smith, K., Yealland, B. (2000). Spiritual issues associated with traumatic-onset disability. *Disability and Rehabilitation*, 22(12), 555-564. doi:10.1080/096382800416805
- Mirowsky, J., & Ross, C. E. (2002). Measurement for a human science. *Journal of Health and Social Behavior*, 43(2) 152-170. doi:10.2307/3090194
- Mitchelmor, J. G. (2013). *Hope and burnout among clinicians who work with children at risk of abuse, neglect, or exploitation* (Master's Thesis), Smith College School for Social Work Northampton, Massachusetts, United States.
- Naude, J. L., & Rothmann, S. (2006). Work-related well-being of emergency workers in Gauteng. *South African Journal of Psychology*, 36(1), 63-81.
- Padhy, M., Chelli, K., & Padiri, R. A. (2015). Optimism and psychological well-being of police officers with different work experiences. *Journal of Personnel Psychology*, 5(2), 1-7. doi:10.1177/2158244015580852
- Pargament, K. I., & Ano, G. G. (2006). Spiritual resources and struggles in coping with medical illness. *Southern Medical Journal*, 99(10), 1161-1162. doi:10.1097/01.smj.0000242847.40214.b6
- Parker, S. K. (1998). Enhancing role breadth self-efficacy: The roles of job enrichment and other organizational interventions. *Journal of Applied Psychology*, 83(6), 835-852.
- Pisanti, R., Van der Doef, M., Maes, S., Lombardo, C., Lazzari, D., & Violani, C. (2015). Occupational coping self-efficacy explains distress and well-being in nurses beyond psychosocial job characteristics. *Frontiers in Psychology*, 6, 66-78.

- Razik, S., Ehring, T., & Emmelkamp, P. M. (2013). Psychological consequences of terrorist attacks: Prevalence and predictors of mental health problems in Pakistani emergency responders. *Psychiatry Research, 207*(1), 80-85.
- Regehr, C. (2009). Social support as a mediator of psychological distress in firefighters. *The Irish Journal of Psychology, 30*(1-2), 87-98. doi: 10.1080/03033910.2009.10446300
- Richardson, G. E. (2002). The meta theory of resilience and resiliency. *Journal of Clinical Psychology, 58*(3), 307-321.
- Salanova, M., Peiró, J. M., & Schaufeli, W. B. (2002). Self-efficacy specificity and burnout among information technology workers: An extension of the job demand-control model. *European Journal of Work and Organizational Psychology, 11*(1), 1-25. doi:10.1080/13594320143000735
- Salvia, J., Ysseldyke, J., & Bolt. S. (2010). *Assessment* (11th ed.). Belmont, CA: Wadsworth.
- Schaufeli, W. B., & Bakker, A. B. (2001). Work and well-being: Towards a positive workplace. *Occupational Health Psychology, 14*(5), 229-253.
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology, 4*(3), 219-247.
- Seligman, M. E. (2002). *Handbook of positive psychology*. New York: McGraw Hill.
- Shakespeare-Finch, J., Rees, A., & Armstrong, D. (2014). Social support, self-efficacy, trauma, and well-being in emergency medical dispatchers. *Social Indicators Research, 123*(2), 549-565. doi:10.1007/s11205-014-0749-9
- Sim, M. R. (2011). Disaster response workers: Are we doing enough to protect them? *Occupational and Environmental Medicine, 68*(5), 309-310.
- Singh, S. & Mansi, P. (2009). Psychological capital as predictor of psychological well-being. *Journal of Indian Academy of Applied Psychology, 35*(2), 233-238.
- Snyder, C. R., Irving, L., & Anderson, J. (1991). Hope and health: Measuring the will and the ways. In C. R. Snyder & D. R. Forsyth (Eds.), *Handbook of social and clinical psychology* (pp. 285-305). Elmsford, NY: Pergamon.
- Snyder, C. R., Sympson, S. C., Ybasco, F. C., Borders, T. F., Babyak, M. A., & Higgins, R. L. (1996). Development and validation of the State Hope Scale. *Journal of Personality and Social Psychology, 70*(2), 321-338.
- Sonnentag, S., & Grant, A. M. (2012). Doing good at work feels good at home, but not right away: When and why perceived prosocial impact predicts positive affect. *Personnel Psychology, 65*(3), 495-530. doi:10.1111/j.1744-6570.2012.01251

- Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin*, *124*, 240-261.
- Tugade, M. M., Fredrickson, B. L., & Feldman Barrett, L. (2004). Psychological resilience and positive emotional granularity: Examining the benefits of positive emotions on coping and health. *Journal of Personality*, *72*(6), 1161-1190.
- Vazquez, C., Hervás, G., Rahona, J. J., & Gómez, D. (2009). Psychological well-being and health: Contributions of positive psychology. *Annuary of Clinical and Health Psychology*, *5*, 15-27.
- Veit, C. T., & Ware, J. E. (1983). The structure of psychological distress and well-being in general populations. *Journal of Consulting and Clinical Psychology*, *51*(5), 730-742.
- Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of the resiliency scale. *Journal of Nursing Management*, *1*(2), 165-178.
- Wheaton, B. (2007). The twain meet: Distress, disorder, and the continuing conundrum of categories. *Health*, *11*(3), 303-319. doi:10.1177/1363459307077545
- World Health Organization. (2010). *Promoting mental health: Concepts, emerging evidence, and practice*. A Report of the World Health Organization, Department of Mental Health and Substance Abuse in collaboration with the Victorian Health Promotion Foundation and The University of Melbourne, Australia. Geneva, Switzerland.
- Yasien, S., Abdul-Nasir, J., & Shaheen, T. (2016). Relationship between psychological distress and resilience in rescue workers. *Saudi Medical Journal*, *37*(7), 778-779. doi:10.15537/smj.2016.7.15004
- Youssef, C. M., & Luthans, F. (2007). Positive organizational behavior in the workplace: The impact of hope, optimism, and resilience. *Journal of Management*, *33*(5), 774-800.

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