



## Clinical & Counselling Psychology Review (CCPR)

Volume No. 1, Issue No. 1, Spring 2019

ISSN<sub>(P)</sub>: 2412-5253 ISSN<sub>(E)</sub>:2706-8676

Homepage: <https://icp.umt.edu.pk/ccpr/home.aspx>

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Online Published:

Spring 2019

Article DOI:

<https://doi.org/10.32350/ccpr.11.03>

Article QR Code:



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To Cite Article:

Noreen, A., Shah, A. A., & Shah, M. A. (2019). The moderating role of coping strategies in occupational stress and burnout in mental health practitioners in Pakistan. *Clinical and Counselling Psychology Review*, 1(1), 28–43.

[Crossref](#)



A publication of the  
Institute of Clinical Psychology  
University of Management and Technology, Lahore, Pakistan.

# The Moderating Role of Coping Strategies in Occupational Stress and Burnout among Mental Health Practitioners in Pakistan

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## Abstract

The current study was aimed to observe the moderating role of coping strategies in occupational stress and burnout among mental health practitioners. It was also aimed to examine the relationship of demographic factors with occupational stress, burnout and coping strategies. Data was collected from 200 mental health practitioners (clinical psychologists and psychiatrists) from different government and private hospitals and rehabilitation centers situated in different cities of Pakistan. Three scales were used in the research, that is, Mental Health Professional Stress Scale to measure occupational stress, Brief Cope to measure coping strategies and Maslach Burnout Inventory-Human Services Survey to assess burnout. The results indicated that there is a strong positive correlation between occupational stress, burnout and emotion focused coping strategies. The analyses showed that coping strategies did not moderate the relation between occupational stress and burnout. In demographic variables, the variables of age, education, experience and work hours were significant. Younger mental health practitioners scored high on occupational stress, burnout and use of emotion focused coping strategies than older ones. In qualification and experience, less qualified and less experienced practitioners had more occupational stress, burnout and used emotion focused coping strategies than more qualified and more experienced practitioners. Those practitioners whose working hours were less had low occupational stress and burnout and used problem focused coping strategies.

**Keywords:** burnout, coping strategies, occupational stress, mental health practitioners

## Introduction

Mental health practitioners (clinical psychologists and psychiatrists) working in human services settings spend most of their time dealing with

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patients who have severe emotional, behavioral, social and physical problems. Dealing with these patients brings frustration, fear, despair, anger among mental health practitioners especially when the patient relapses and there is a small chance of recovery. Additionally, if the work environment is not protective, there is a lack of facilities, resources and other work related problems are there, then persistent occupational stress can cause Burnout.

Currently, in Pakistan, there are not many consultant psychiatrists and clinical psychologists and a large number of patients. The ratio of psychiatrists in Pakistan is 1 for every 10,000 individuals who suffer from any mental disorders. The same ratio for child psychiatrists is 1 for every 4,000 children and for the entire 180 million population there are only four major psychiatric hospitals with fully equipped facilities. This is a major reason which causes stress and frustration among mental health practitioners as the number of patients is large (Qasim, [2012](#)). The number of practicing psychiatrists in Pakistan is just 349 and this could be a major cause of burnout (Waqas, Bukhari & Ghanzafar, [2015](#)). In order to cope with burnout due to stress, mental health practitioners could use different coping strategies which can reduce the burnout.

In the medical field, one of the utmost stressful professions is psychiatry, since the psychiatrist works with chronic psychological patients with little hope of getting cured (Fischer, Kumar & Hatcher, [2007](#)). Clinical psychologists and psychiatrists are two types of professionals who have the same level of therapeutic liability and do their work on similar grounds. Most of the work in mental health field were conducted on the sample of nurses and psychiatrists and comparative studies on clinical psychologists and psychiatrists are scarce and practically non-existent (Oubina, Calvo & Rios, [1997](#)).

### **1.1. Rationale of the Study**

Among all occupations, mental health practitioners' work could be contemplated as highly stressful. In Pakistan, few studies have been conducted on stress and burnout among mental practitioners. But no study has been conducted on how mental health practitioners cope with stress to avoid burn out and which coping strategies they use. Secondly, most studies on mental health practitioners have been conducted in western societies and in a variety of human service settings including social workers, nurses, community psychologists, counselors, educationists etc. There is a

difference in the practice of psychiatry in western and Asian countries in terms of the type of work, nature of stressors, gender roles, kind of facilities for work etc. So, in Pakistan, the level of stress and the use of coping strategies is different and this study is intended to measure only the stress level of psychiatrists and clinical psychologists working in hospitals and rehabilitation centers.

The outcome of study is related to training programs which ought to be organized for mental health practitioners. This study helps us to know that demographic variables do have an impact on occupational stress and burnout. So, in intervention programs differences of experience, education, age etc. should be kept in mind while arranging workshops.

## **1.2. Occupational Stress**

Stress that occurs due to a person's employment is called occupational stress (Butt, [2009](#)). There are three levels of stress. Firstly, there is stress which arises from an exterior source stress due to occupation and stress which is connected with main life act. Secondly, there are coping strategies which act as moderators and are used as main defense when stress affects a person negatively. Coping strategies include both active and passive coping strategies. Lastly, there is the stress outcome. Outcome could be adverse or conclusive. An adverse outcome can be low job satisfaction and burnout (Carson & Kupier, [1998](#)).

## **1.3. Coping Strategies**

According to Lazarus and Folkman ([1980](#)), coping is “Doing cognitive and behavioral attempt continuously to maintain exterior and interior demands that are considered as outstrip the person resources”.

Although much of the coping literature has used the broad active versus passive or problem- versus emotion-focused dichotomy in assessing the impact of coping on stress, theorists such as Lazarus caution against broad generalizations (Lazarus & Folkman, [1980](#)). He emphasizes the importance of context as one coping solution may be more or less adaptive in one situation versus another. In his view, coping strategies operate much like defenses and may be protective in certain situations. Likewise, people are more likely to use combinations of strategies in addressing environmental stressors (Berger, [2011](#)). Burnout among human service providers, including psychologists (Berger, [2011](#)) were measured by them.

## 1.4. Major Categories of Coping Strategies

**1.4.1. Emotion focused coping.** It refers to coping which regulates stressful emotions (Lazarus & Folkman, [1980](#))

**1.4.2. Problem focused coping.** These are strategies used to handle the issues which are main source of stress (Lazarus & Folkman, [1980](#)).

**1.4.3. Burnout.** It is a syndrome which appears in a person whose nature of work is to labor with others in an enclosed space which causes emotional exhaustion, depersonalization and reduced personal accomplishment.

## 1.5. Stress, Burnout and Coping Strategies

A study by Lazarus and Folkman ([1980](#)) on coping strategies of middle aged community were analyzed. The analyses showed that 98% of them used both emotion and problem focused coping strategies and it emphasized that the conceptualization of coping strategies either as emotion or problem focused is inaccurate. Many kinds of coping strategies are often used in combination and intra-individual results also showed that people are more variable than constant in the use of coping strategies. Among demographic variables, age and gender were examined which have a particular impact on coping. Males use more problem focused coping strategies than females in workplace setting. Among middle aged man between 45 to 64 years of age there was no difference in coping pattern.

Cushway and Tyler ([1994](#)) conducted a study on stress and coping in clinical psychologists. She selected a sample of 101 West Midlands' clinical psychologists and sent them the questionnaire through post. The results of the study showed that stress level in qualified clinical psychologists and trainees was the same. The demographic variables showed that gender wise women suffer from more occupational stress than males. Similarly, less experienced psychologists face more stress than more experienced ones and junior psychologists reported a higher stress level than senior ones. Gillespie and Numerof ([1991](#)); Numerof and Abrams ([1984](#)); Benbow and Jolley ([2002](#)); Rathod, Roy, Ramsay, Das, Birwistle and Kindgdom ([2000](#)); and White ([2006](#)) found out more experienced psychologists demonstrated fewer characteristics of burnout. To cope with stress, the coping strategies used most were behavioral such as talking to others and the coping strategy of avoidance (Emotion Focused Coping Strategies). The use of passive or emotional coping strategies predicted emotional exhaustion (Jenaro, Flores & Arias, [2007](#)).

A study on the relationship of self-efficacy and burnout among physicians by Aftab, Shah and Mehmood ([2012](#)) found out that female physicians experienced more burnout than male physicians.

Taycan, Kutlu, Cimen, and Aydýn ([2006](#)) have found that with increasing qualification the lack of accomplishment also increases. Whereas small differences were found for emotional exhaustion which was greater in employees with less than one year of experience. Overall burnout was greater in employees with an experience of 5 to 10 years. Deckard, Meterko and Field ([1994](#)) found out that the initial two to five years of professional life is a crucial period in which emotional exhaustion could affect personal and professional achievement as well as major steps related to the job itself. For working hours, significant difference was found in the level of emotional exhaustion between employees with different working hours. Employees whose working hours were 9 to 12 scored greater on emotional exhaustion as compared to employees with 4 to 8 or 13 to 16 working hours.

A study on work stress in psychiatrist and the coping strategies they use was conducted by Rathod et al. ([2000](#)). Findings of the study revealed that younger psychiatrists who are less than 40 years of age take more stress and use problem focused coping strategies as compared to older psychiatrists or consultants. In terms of gender, there was not much difference due to work stress but overall females were more stressed as compared to males.

## **2. Hypotheses of the Study**

1. There is a positive relation between occupational stress and burn out.
2. Coping strategies do not moderate the relationship between occupational stress and burnout.
3. Younger mental health practitioners experience more occupational stress and burn out and use emotion focused coping strategies.
4. Less qualified mental health practitioners endure more stress, burn out and use emotion focused coping strategies as compared to more qualified mental health practitioners.
5. Less experienced mental health practitioners endure more occupational stress, burn out and use emotion focused coping strategies as compared to more experienced ones.

### 3. Method

#### 3.1. Sample

Questionnaires were filled from 200 mental health practitioners (psychiatrists and clinical psychologists). Their ages varied from 24 to 60 years. Data was collected using convenient sampling technique from different cities of Pakistan including Rawalpindi, Lahore, Islamabad, Peshawar, Faisalabad, Karachi, Pano Aqal, Kohat, ottack, Kharian Cantt, Multan, Muzzarafad, Sanjwal Cantt. Sample comprised those participants who worked in human services setting. The sample was taken from hospitals including private and government hospitals and some participants were chosen from rehabilitation centers.

#### 3.2. Instruments

**3.2.1. Mental health professional stress scale (MHPSS).** It is a self-report measure which shows different causes of stress for mental health practitioners. It has 42 items and has seven subscales and it was applied on a sample of clinical psychologists which comprised 154 psychologists. A four point response scale was used to measure the responses in which 0 indicated “does not apply to me” and 3 indicated “does apply to me” (Cushway, Tyler & Nalon, [1996](#)). This research scale showed good internal consistency ( $\alpha=.87$  for clinical psychologist.). The preliminary evidence also proved that this scale has a good concurrent validity. On a sample of clinical psychologists in India, alpha of full scale was .89 (Mehrotra, Rao & Subbakrishna, [2000](#)).

**3.2.2. Brief COPE.** There are 28 items and 14 subscales, each scale is composed of two items. Based on definition, Brief Cope is divided into two main categories: problem-based coping and emotion- focused coping. Active coping (items 2 and 7), use of instrumental support (items 10 and 23), planning (items 14 and 25), are classified as problem-based coping. Self-distraction (items 1 and 19), denial (items 3 and 8), substance use (items 4 and 11), use of emotional support (items 5 and 15), behavioral disengagement (items 6 and 16), venting (items 9 and 21), positive reframing (items 12 and 17), humor (items 18 and 28), acceptance (items 20 and 2), religion (items 22 and 27), self-blame (items 13 and 26) fall into emotion-based coping (Macdonald, [2011](#)).

For 14 subscales, reliabilities range from 0.57-0.90 (Carver, [1997](#)) and reliability for each subscale ranges from .75 to .82 (Maldonado, [2005](#)) and

0.54-0.93 (McDonald, [2011](#)). The reliability of Brief COPE full scale is 0.81 and coping strategies are divided mainly into problem-based and emotion-based coping with 0.79 and 0.75 reliability, respectively (McDonald, [2011](#)). The responses are measured on Likert scale in which '1' is 'I have not been doing this at all', '2' is 'I have been doing this a little bit', '3' is 'I have been doing this a medium amount' and '4' is 'I have been doing this a lot'.

**3.2.3. Maslach burnout inventory- human services survey (MBIHSS).** MBI-HSS has three subscales. The first is emotional exhaustion (9 items). The second subscale is depersonalization (5 items). The third subscale is personal accomplishment (8 items). The MBI-HSS is a 22 item self- report inventory and the responses are measured on Likert-type frequency scale on 7 points beginning with 0 = never, 1 = a few times a year or less, 2 = once a month or less, 3 = a few times a month, 4 = once a week, 5 = a few times a week, 6 = every day.

Internal consistency is 0.83 and Cronbach alpha for the subscales are 0.89 for emotional exhaustion, 0.74 for personal accomplishment and 0.77 for depersonalization.

**3.2.4. Demographics.** The demographic sheet was used attached with written consent form. For the purpose of the current study, the demographic information obtained included gender, age, education, number of years practicing, primary work setting, hours worked, occupation, location and name of the organization.

## 4. Procedure

Questionnaires using all measurement scales were distributed among 200 mental health practitioners working in private and government hospitals. First of all, inform consent was taken from each participant and in Rawalpindi, Islamabad questionnaires were handed over to them on a personal basis. They were thoroughly introduced about the nature of study, its aim and how it is good for academia and for mental health practitioners. The queries of participants were entertained on the spot.

## 5. Result

Reliability analysis was done to measure Cronbach alpha and alpha scores of the Mental Health Professional Stress Scale and its subscales which are as follows, Overall MHPSS Scale .980, workload .883, client related



Difficulties .901, organizational structure and process .888, lack of resources .882, professional self-doubt, home-work conflict .888. For Brief Cope overall alpha score is .765, and for subscale problem focused coping .891, emotion focused coping .884. Cronbach alpha score for combined scale is .722, while for subscale emotional exhaustion .939, depersonalization .823 and lack of accomplishment .895.

Table 1  
*Correlation of Independent, Moderator and Dependent Variable*

| Variables | 1      | 2      | 3      | 4     | 5      | 6      | 7 |
|-----------|--------|--------|--------|-------|--------|--------|---|
| MHPSS     | 1      |        |        |       |        |        |   |
| EFC       | .81**  | 1      |        |       |        |        |   |
| PFC       | -.59** | -.46** | 1      |       |        |        |   |
| MBI-HSS   | .71**  | .64**  | -.34** | 1     |        |        |   |
| EE        | .87**  | .79**  | -.59** | .85*  | 1      |        |   |
| PA        | -.63** | -.54** | .66**  | -.16* | -.62** | 1      |   |
| DP        | .82**  | .69**  | -.58** | .77*  | .85**  | -.66** | 1 |

*Note;* MHPSS= Mental Health Professional Stress Scale, EFC=Emotion Focused Coping Strategies, PFC= Problem Focused Coping Strategies, MBI-HSS= Maslach Burnout Inventory Human Services Survey, EE= Emotional Exhaustion, PA= Personal Accomplishment, DP= Depersonalization

\*\* . Correlation is significant at the 0.01 level (2-tailed)

\*. Correlation is significant at the 0.05 level (2- tailed)

Table 1 shows the correlation of scales. Occupational stress and emotion based coping are positively correlated with overall burnout and with the subscale of emotional exhaustion and depersonalizations, whereas it is significantly negatively correlated with personal accomplishment and problem focused coping strategies. So, the overall relation of stress with burnout and with emotion focused coping is significant  $p < 0.01$ .

Table 2.  
*Hierarchical Regression Analysis Predicting Burnout from Occupational Stress X Coping Strategies (N=200)*

| Predictor       | R   | R(square) | df  | f      | β     |
|-----------------|-----|-----------|-----|--------|-------|
|                 | .71 | .50       | 198 | 204.85 |       |
| Job Stress      |     |           |     |        | 1.899 |
| PFC             |     |           |     |        | .111  |
| EFC             |     |           |     |        | -0.32 |
|                 | .72 | .51       | 196 | 3.687  |       |
| Job Stress ×PFC |     |           |     |        | .261  |
| Job Stress× EFC |     |           |     |        | -.199 |

Note: PFC= Problem Focused Coping, EFC= Emotion Focused Coping

The results are non-significant. The non-significant findings show that either problem or emotion based coping strategies do not affect the relation of occupational stress to burnout.

Table 3  
*t- test Independent for Age*

|                   | <40 years<br>(n=159) |       | >40 years<br>(n=41) |       | t(198) | p       |
|-------------------|----------------------|-------|---------------------|-------|--------|---------|
|                   | M                    | SD    | M                   | SD    |        |         |
| Total Job Stress  | 1.24                 | .790  | .57                 | .492  | .01    | .001**  |
| Brief Cope        |                      |       |                     |       |        |         |
| Emotion-Focused   | 2.09                 | .517  | 1.55                | .371  | .02    | .001*** |
| Problem-Focused   | 2.28                 | .877  | 3.22                | .710  | .02    | .001*** |
| MBIHSS            | 2.74                 | .790  | 2.33                | .534  | .02    | .001*** |
| Emotional. E      | 2.34                 | 1.590 | .88                 | 1.206 | .01    | .001*** |
| Personal. A       | 3.65                 | 1.435 | 4.94                | 1.074 | .10    | .001*** |
| Depersonalization | 2.02                 | 1.626 | .77                 | 1.122 | .10    | .001*** |

Note; MHPSS= Mental Health Professional Stress Scale, EFC=Emotion Focused Coping Strategies, PFC= Problem Focused Coping Strategies, MBI-HSS= Maslach Burnout Inventory Human Services Survey, EE= Emotional Exhaustion, PA= Personal Accomplishment, DP= Depersonalization



Table 3 depicts comparison on the basis of age difference. T-test shows significant difference in occupational stress, burnout and coping strategies between age groups of <40 and >40. >40 have less stress, low burnout and use more problem focused coping strategies. All results are significant with  $p < .001$ .

Table 4  
*One way Analysis of Variance for Experience*

| Variables | <1<br>(n=26) |      | 1-5<br>(n=85) |      | 6-10<br>(n=67) |      | >10<br>(n=22) |     | f     | p       |
|-----------|--------------|------|---------------|------|----------------|------|---------------|-----|-------|---------|
|           | M            | SD   | M             | SD   | M              | SD   | M             | SD  |       |         |
| MHPSS     | 1.80         | .64  | 1.59          | 0.80 | 0.67           | .47  | .54           | .43 | 31.14 | .001*** |
| EFC       | 2.11         | 0.53 | 2.26          | 0.44 | 1.68           | .46  | 1.63          | .36 | 25.15 | .001*** |
| PFC       | 2.28         | 0.70 | 2.09          | 0.87 | 2.88           | .86  | 3.94          | .83 | 13.56 | .001*** |
| MBIHSS    | 2.68         | 0.77 | 2.99          | 0.77 | 2.37           | .63  | 2.24          | .53 | 12.36 | .001*** |
| EE        | 2.33         | 0.48 | 3.00          | .53  | 1.13           | 1.14 | .80           | .98 | 30.59 | .001*** |
| PA        | 3.42         | 1.40 | 3.28          | 1.39 | .52            | 1.24 | 5.05          | .91 | 18.27 | .001*** |
| DP        | 2.12         | 1.72 | 2.50          | 1.68 | .16            | 1.11 | .35           | .63 | 18.92 | .001*** |

*Note;* MHPSS= Mental Health Professional Stress Scale, EFC=Emotion Focused Coping Strategies, PFC= Problem Focused Coping Strategies, MBI-HSS= Maslach Burnout Inventory Human Services Survey, EE= Emotional Exhaustion, PA= Personal Accomplishment, DP= Depersonalization

Table 4 shows mean differences and value of significance for different educational levels. The results are significant. The value is below .05 which means that the results are highly significant. There is difference in stress, coping strategies and burnout level on the basis of experience. Table 5 shows that less experienced practitioners have more stress, use more emotion focused coping strategies and have high burnout than highly experienced ones.

## 6. Discussion

The study investigated the extent to which coping strategies play a moderating role in the relation between occupational stress and burnout.

Table 1 indicates a positive relationship of occupational stress with subscale emotion focused coping strategies ( $r=.814^{**}$ ) which is consistent with previous research findings of Maldonado (2005) and McDonald (2005) that occupational stress and emotion based coping strategies are positively correlated and when mental health practitioners use emotion focused coping strategies occupational stress also increases. Occupational stress (MHPSS) overall mean is positively correlated with overall burnout ( $r=.713^{**}$ ), with emotional exhaustion, personal accomplishment ( $r= -.633^{**}$ ), depersonalization ( $r= .871^{**}$ ,  $r= .817^{**}$ ) and is negatively correlated with personal accomplishment ( $r= -.633^{**}$ ) and this finding is consistent with the result of Emma Jones Cotes(2004) who anticipated that overall underlying construct measured by MHPSS AND MBI-HSS are similar. Occupational stress is negatively correlated with problem focused coping strategies ( $r=-.592^{**}$ ) and this finding is consistent with Macdonald (2011) that problem based coping strategies are negatively correlated with stress.

Hypothesis 2 indicates the moderating effect of coping strategies on occupational stress and burnout. Moderated regression analysis was performed for problem focused coping and emotion focused coping to explore the incremental variance of product term. This hypothesis was not supported. Coping strategies play a small role in the prediction of burnout. The non-significant interaction indicates that the use of problem or emotion focused coping strategies do not affect the relation of job stress and burnout. This finding is consistent with the finding of Maldonado (2005) which depicts a similar result for the moderating role of coping strategies in occupational stress and depressive affect. According to Lazarus and Folkman (1980) a person changes the coping strategies depending on the situation. People are more variable than constant in the use of coping strategies. They used emotion and problem focused coping strategies depending on the circumstances.

Table 3 indicates that the younger mental health practitioners would experience more burnout, occupational stress and use emotion focused coping strategies with these passive strategies often linked to burnout. For example, the use of passive or emotion focused coping strategies predict emotional exhaustion (Jenaro et al., 2007). Senior employees have a low level of burnout than their younger counterparts (Gillespie & Numerof, 1991; Numerof & Abrams, 1984). Shanaya Rathod and colleagues (2000) revealed that younger psychiatrists who were less than 40 years of age

experienced more stress and used problem focused coping strategies than older psychiatrists or consultants.

Table 4 indicates that the results are significant at  $p < .01$  level. Less qualified practitioners experience more stress, burnout and use emotion focused coping strategies whereas more qualified ones experience low stress, burnout and use problem focused strategies.

Table 5 indicate that the results are significant at  $p < .05$  level. Less experienced practitioners with  $< 1$  to 5 years' experience more occupational stress, burnout and use emotion focused coping strategies whereas more experienced practitioners with an experience of 6 years to  $> 10$  experience low stress and burn out and use emotion focused strategies. Similar results are shown in mean plot, as experience increases stress, burnout and use of problem focused strategies also increases. According to Numerof & Abrams (1984) employees with a long experience of same post at work place experience low burnout. Richard A. White (2006) found out that more experienced practitioners demonstrated fewer characteristics of burnout. Senior and experienced psychologists show less stress than young professionals (Cushway & Tyler, 1994).

## 7. Conclusion

The present study finds out the moderating role of coping strategies in occupational stress and burnout among mental health practitioners and the positive association between stress and burnout. The study also makes the use of demographic variables like gender, age, occupation, education, experience, working hours etc. and their impact on stress and burnout.

### 7.1. Limitation and Suggestions

There are important limitations that must be considered in drawing conclusions and that have implications for future research designs. Firstly, small sample size is a major limitation of the study as results cannot be generalized on the larger population. Secondly, the combined length of the three questionnaires was considerable and each participant was supposed to fill all three questionnaires having a sum of 100 questions. Next, the study was limited to only those participants who were working in hospitals. Although it is hoped that these results may also be helpful for all practicing psychologists and psychiatrists as well as those in other human services professions (medical profession, school teachers, social workers, academicians etc.). In future studies, it is imperative to include the salary

and socioeconomic status of mental health practitioners as they have a lot of impact on stress and burnout among practitioners in Pakistan.

### References

- Aftab, N., Shah, A. A., & Mehmood, R. (2012). Relationship of self-efficacy and burnout among physicians. *Academic Research International*, 2. Retrieved from [http://www.savap.org.pk/journals/ARInt./Vol.2 \(2\)/2012\(2.2-60\).pdf](http://www.savap.org.pk/journals/ARInt./Vol.2 (2)/2012(2.2-60).pdf)
- Benbow, S. M., & Jolley, D. J. (2002). Burnout and stress amongst old age psychiatrists. *International Journal of Geriatr Psychiatry*, 8, 710–4. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/12211119>
- Berger, S. R. (2011). Challenging client behaviors, coping and burnout among professional psychologists: Loyola University Chicago. Retrieved from [http://ecommons.luc.edu/cgi/viewcontent.cgi?article=1221&context=luc\\_diss](http://ecommons.luc.edu/cgi/viewcontent.cgi?article=1221&context=luc_diss)
- Butt, Z. U. (2009). *The relationship between occupational stress and organizational commitment in nongovernmental organizations of Pakistan* (Doctoral dissertation). National University of Modern Language, Islamabad, Pakistan.
- Carson, J. & Kuipers, E. (1998). Stress management interventions. In S. Hardy, J. Carson, & B. Thomas (Eds.), *Occupational stress: Personal and professional approaches*. Cheltenham: Stanley Thornes. Retrieved from [https://books.google.com.pk/books?hl=en&lr=&id=jip5\\_dcQiz0C&oi=fnd&pg=PT127&dq=CARSON,+J.+%26+KUIPERS,+E.+\(1998\)+Stress+management+interventions&ots=j28XuerY5c&sig=0yRoss5eY-bbuJFzIIBxaDRKhFc #v=onepage&q&f=false](https://books.google.com.pk/books?hl=en&lr=&id=jip5_dcQiz0C&oi=fnd&pg=PT127&dq=CARSON,+J.+%26+KUIPERS,+E.+(1998)+Stress+management+interventions&ots=j28XuerY5c&sig=0yRoss5eY-bbuJFzIIBxaDRKhFc #v=onepage&q&f=false)
- Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the brief COPE. *International Journal of Behavioural Medicine*, 4, 92–100. Retrieved from <http://www.psy.miami.edu/faculty/ccarver/scIbrCOPE.html>
- Cushway, D., Tyler, A. P., & Nolan, P. (1996). Development of a stress scale for mental health professionals. *British Journal of Clinical Psychology*, 35, 279–295. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/j.2044260.1996.tb01182.x/abstract;jsessionid=86B4242A36510664214DA6E3679768D4.f04t02>

- Cushway, D., & Tyler, A. P. (1994). Stress and coping in clinical psychologists. In *Stress Medicine* (Vol 10: Stress and Health). 35–42. New York: John Wiley. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1002/smi.2460100107/abstract>
- Deckard, G., Meterko, M. and Field, D. (1994). Physician Burnout: An examination of personal, professional and organizational relationships. *Medical Care*, 32, 745–754.
- Fischer, J., Kumar, S., & Hatcher, S. (2007). What makes psychiatry such a stressful profession? A qualitative study. *Australians Psychiatry*, 15(5), 417–21.
- Gillespie, D. F., & Numerof, R. E. (1991). Burnout among health service providers. *Administration and Policy in Mental Health and Mental Health Services Research*, 18(3), 161–171. Retrieved from <http://link.springer.com/article/10.1007/BF00713800>
- Jenaro, C., Flores, N., & Arias, B. (2007). Burnout and coping in human service practitioners. *Professional Psychology: Research and Practice*, 38, 80–87. <http://dx.doi.org/10.1037/0735-7028.38.1.80>
- Lazarus, R., & Folkman, S. (1980). An analysis of coping in middle aged community sample. *Journal of Health and Social Behavior*, 21, 219–239. Retrieved from <http://www.jstor.org/discover/10.2307/2136617?uid=2&uid=4&sid=21106183591231>
- Macdonald, O. F. (2011). *Putting the puzzle together: Factors related to emotional well-being in parents of children with autism spectrum disorders*. University of South Florida.
- Maldonado, L. E.-F. (2005). *Coping, social support, biculturalism, and religious coping as moderators of the relationship between occupational stress and depressive affect among hispanic psychologists*. University of Maryland. Retrieved from <http://drum.lib.umd.edu/bitstream/1903/2913/1/umi-umd-2704.pdf>
- Mehrotra, S., Rao, K., & Subbakrishna, D. K. (2000). Factor structure of the Mental Health Professionals Stress Scale (MHPSS) among clinical psychologists in India. *International Journal of Social Psychiatry*, 46, 142–50.

- Numerof, R. E., & Abrams, M. N. (1984). Sources of stress among nurses: An empirical investigation. *Journal of human stress*, 10(2), 88–100. Retrieved from <http://www.tandfonline.com/doi/abs/10.1080/0097840X.1984.9934963>
- O’Driscoll, M. P. (1999). Evaluating stress: A book or resources, In C. P. Zalaquett, & R. J. Wood. (Eds.). *Stress Medicine* (Vol. 2, pp. 262–263). London: Scarecrow Press. doi:10.1002/(SICI)1099-1700(199910)15:4<262::AID-SMI844>3.0.CO;2-B
- Oubina, V. M. T., Calvo, M. C., & Rios, L. F., (1997). Occupational stress and state of health among clinical psychologists and psychiatrists. *Journal of Psychology in Spain*, 1, 63–71. Retrieved from <http://www.psychologyinspain.com/content/full/1197/7bis.htm>
- Qasim, M. (2012). Mental health most neglected field in Pakistan. Retrieved from <http://www.thenews.com.pk/Todays-News-6-136490-Mental-health-most-neglected-field-in-Pakistan>
- Rathod, S., Roy, L., Ramsay, M., Das, M., Birwistle, J., Kindgdom, D. (2000). A survey of stress in psychiatrists working in the Wessex Region. Retrieved from <http://pb.rcpsych.org/content/24/4/133>
- Taycan, O., Kutlu, L., Cimen, S., & Aydýn, N. (2006) Relation between sociodemographic characteristics depression and burnout levels of nurse working in university hospital. *Anatolian Journal of Psychiatry*, 7, 100–108.
- Waqas, A., Bukhari, H., & Ghanzafar, A. (2015). Psychiatric research in Pakistan: Past, present and future. *Journal of Pakistan Psychiatric Society*, 12(1), 37. Retrieved from [http://jpps.com.pk/article/editorialpsychiatricresearchinpakistanpastpresentandfuture\\_2462.html](http://jpps.com.pk/article/editorialpsychiatricresearchinpakistanpastpresentandfuture_2462.html)
- White, R. A. (2006). *Perceived stressors, coping strategies, and burnout pertaining to psychiatric nurses working on locked psychiatric units*: Eastern Michigan University. Retrieved from <http://commons.emich.edu/theses>