Impact of Burnout on Mental Health of Social Workers: Moderating Role of Social Support

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ARTICLE INFO

ABSTRACT

Burnout is progressively seen as an issue in the field of social work however there is a limited knowledge about moderating influence of social support on burnout and mental health of social workers. The present study intended to explore the impact of burnout on mental health and connection between burnout and mental health of social workers. Additionally, it also investigates the moderating effects of social support in this relationship. For the study, 300 subjects (188 males, 112 females) were approached by using purposive sampling technique. The results of the study revealed that burnout has an impact on mental health and there is a significant positive correlation between burnout and mental health. Findings showed a weak effect of social support on the relationship between burnout and mental health. Moreover, the study revealed no gender differences in burnout, social support and mental health. The outcomes involve a wide scope of interventions pointed toward advancing mental health among social workers for policymakers.

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1. Introduction

Nearly, one quarter to one fifth of the general population have been influenced by mental health problems (Gyorffy, Dweik, & Girasek, 2016). Based on the World Health Organization (2014) data, one out of every five employees may experience mental health issues in the workplace (Humayun, 2017). Some of the professionals such as nurses, psychologists, social workers have high inclination toward burnout due to the rigorous experience with people. Burnout is a psychological condition that constantly reacts to enduring interpersonal stressors on the job (Wb & Leiter, 2001).

Most of the researchers believed that burnout is a work associated psychological disorder or may be job associated stress state (Awa, Plaumann, & Walter, 2010). However, burnout is linked with other psychological impairments like depression and anxiety. The research conducted by Awa et al. (2010) supported that burnout is a different concept from other psychological issues like overall stress response and other working conditions such as job satisfaction. Moreover, burnout is considered a common problem among social workers (Acker, 1999), as well as in administrators, mental health service providers and workers in public sector (Awa et al., 2010).

Inadequate staffing, unnecessary responsibilities, poor governance, lack of support, lack of professional advancement and bad public portrayal are reasons for burnout and stress among social workers, as well as in administering mental health services (Awa et al., 2010).
workers (Bove & Pervan, 2013; Graber et al., 2008). Excessive tension can lead towards burnout, if not coped properly and it effects not only the capacity to provide care to susceptible individuals but also social workers' own prosperity and wellbeing (Johnson et al., 2018; H. Kim, Ji, & Kao, 2011; Skirrow & Hatton, 2007).

Throughout history, mental health has been characterized in two ways: the medical model and the psychological model. Psychopathology is used in medical model to assess mental health (e.g., alcohol or substance abuse, anxiety, and depression). In contrast, the psychological model says that someone's well-being depends upon the level of life satisfaction and subjective appraisal of positive effects. Extant literature specifies that mental health has a complete explanation within the above-mentioned frameworks (Keyes, 2002). There is compelling evidence that burnout affect the mental and physical health of the employees (Ahola, Vaananen, Koskinen, Kouvonen, & Shirom, 2010). It appears that burnout is a well-deserve research area for three reasons: (1) its dominance within the extensive population, (2) individual and organizational consequences, (3) scientific difference of opinion on its etiology and therefore the characteristic variation of it from alternative diseases, specifically from depression (Bianchi, Schonfeld, & Laurent, 2014).

Social support has been formally shown to significantly reduce the harmful influence of challenging circumstances to avert mental drawbacks (Gillani, Shafiq, & Ahmad, 2019; Shafiq & Gillani, 2018). Social support is “the perceived accessibility of assets, and it includes the support offered by the person’s social interaction, such as husband, friends, colleagues, and family member”. Social support has a positive influence on health with two effects; buffering effect and direct effect (Cohen & Wills, 1985). Extant literature revealed that social support has a negative link with the psychological distress (Maheri et al., 2018) and positive influence on anxiety indicators among medical workers (Gao et al., 2012). Furthermore, prior studies have also demonstrated buffering impact of social support as a moderator between the two variables; anxiety symptoms and burnout (Zhang et al., 2020). Unexpectedly, little consideration has been paid to the wellbeing and prosperity of social workers. Previous studies have reported that social workers might encounter more significant levels of pressure and burnout as compared to other related professions (Keyes, 2002). Similarly, (Kimes, 2016) described that social worker experience more burnout and have low/fewer sensations of individual achievement than other care providers. Previously, most of the studies were conducted on mental health service contributors (Morse, Salyers, Rollins, Monroe-DeVita, & Pfahler, 2012) psychologists, and nurses (Ben-Zur & Michael, 2007) health professionals (Ruisoto et al., 2021) female medical staff and female physicians (Gyorffy et al., 2016; Zhang et al., 2020). However, few researches have been conducted to investigate burnout among social workers (Hussein, 2018). Morse et al. (2012) suggested a persistent need for further research on mental health and burnout.

Therefore, this study aimed to look over the connection between burnout, mental health and social support between social workers. Furthermore, this study investigated the moderate effects of social support in this relationship. In this way, prospective ways to improve psychological health among social workers can be identified.

2. Theoretical background

Job attributes may be grouped in two dimensions; job resources and job demands into the Job Demand-Resource Model (JD-R Model). According to this model, attributes of job recourses positively stated that related to the opportunities and social support for the individual progress (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) while in the comparison, job demands are considered as the negative attributes that are related to the work-family conflict, heavy workload, job uncertainty (Bakker & Demerouti, 2007; Demerouti et al., 2001). This model (JD-R) involves two processes; health impairment and motivation (Bakker & Demerouti, 2007; Demerouti et al., 2001). However, the concerned research is based on the impairment process that suggests that too many job expectations are capable to rise the burnout
threat and it will result in negative outcomes, e.g., health issues (Schaufeli, 2017). Moreover, emotional enervation can drain the physical as well as mental resources of employees, and therefore, it contributes towards mental health issues, like stress, depression, and anxiety (Schaufeli, 2017).

Social support is a key job source due to its moderate influence. While traumatic incidents generate negative influence on a person’s welfare, social support can provide a preventive element. It can assist a human to bring down stress or acquire healthy output in response to stress elements (Cohen & Wills, 1985). For example, in a study of nurses, social support was found to have a moderating influence on the connection between burnout and work family conflict (Huang, Wu, Wang, & Tang, 2015). Furthermore, Santa Maria et al. (2018) investigated that the secondary cause of anxiety may be moderating role by job demand and social support. Zhang et al. (2020) reported that in order with the J-DR model, there is a moderating impact of social support in the health impairment process. Thus, the following hypotheses are listed below.

H1: There would be an impact of burnout on mental health.
H2: There would be a positive correlation between burnout, mental health and social support.
   H2a: There would be a positive correlation between mental health and burnout.
   H2b: There would be a positive correlation between mental health and social support.
H3: Social support would moderate the relationship between burnout and mental health.
H4: There would be significant differences in burnout, mental health and social support based on gender.

Based on the JDR model, job resources (e.g., social support) can buffer the outcomes of job demands (e.g., burnout) on mental health of social workers. Therefore, the buffering effect of social support can change individuals’ perceptions and cognitions evoked by stressors, and moderate individual’s appraisal process to stressful events and reduce the impact of stressors on health outcomes.

3. Method
The sample consisted of 300 individuals, 188 males and 112 females. The sample was selected from district Vehari through purposive sampling technique. The target population was social workers. Different institutions were selected to draw the sample like NGOs, Rescue 1122 and volunteers. The age range of participants was 20 to 35. This age range was selected because the most of the social workers were young. All workers had minimum bachelor education.

3.1 Instruments
Mental Health Inventory: MHI was used to check the level of mental health. This 18 items tool was developed by Veit and Ware (1983). It assesses the mental health during the past four weeks. The level of perceived social support measured by the Multidimensional Scale of Perceived Social support developed by Zimet, Dahlem, Zimet, and Farley (1988). The reliability of scale was
0.88. Maslach, Jackson, and Leiter (1996) developed a burnout inventory. MBI is the most frequently used instrument to self-assess the risk of burnout. It consists of 22 items.

3.2 Procedure
In this research, 300 social workers working in different institutions including NGOs, Rescue 1122 were approached. Each participant was provided with informed consent. Participants were also ensured about the confidentiality of research data that there information will be used only for research purpose.

4. Results

Table 1
Linear Regression Analysis Predicting the impact of Burnout on Mental Health

| Variables | B       | SE  | β    |
|-----------|---------|-----|------|
| Constant  | 63.06***| 2.46|      |
| Burnout   | .108**  | .18 | .034 |

R² = .034

Note N=300 **p<.01, ***p<.000

Table 1 shows the impact of burnout on mental health in social workers. The R² value .034 states that the predictor variable explains 3.4% variation in the dependent variable with F (1, 298) = 10.42, p < .01. The findings discovered that burnout has an impact on mental health.

Table 2
Correlation Analysis to Find Correlation among Burnout, Mental Health, and Social Support

| Variables             | 1     | 2       | 3     |
|-----------------------|-------|---------|-------|
| 1. Burnout            | .18** | .05     |       |
| 2. Mental Health      |       | .14*    |       |
| 3. Social Support     |       | 1       |       |

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

Table 2 reveals that burnout has significantly and positively correlated with mental health (r = .18, p < .01) and have very weak correlation with social support (r = .05). Mental health has significant positive correlation with social support (r = .14, p< .05).

Table 3
Hierarchical Regression Analyses testing Social Support would moderate the Relationship between Mental Health and Burnout

| Variable    | B      | SE B  | β    | R²   | ∆R² |
|-------------|--------|-------|------|------|-----|
| Step 1      |        |       |      |      |     |
| Constant    | 63.06***| 2.46  |      | .034 | .034** |
| Burnout     | .108** | .18   | .034 | .18**|     |
| Step 2      |        |       |      |      |     |
| Constant    | 56.63***| 2.46  |      | .044 | .017* |
| Burnout     | .105** | .170  | .04  | .177**|     |
| Social support | .107* | .198  | .046 | .130*|     |

Note CI "Confidence interval; LL =lower limited, UL= Upper limited" ***p<0.000, *P< 0.05, **P< .01.

Table 3 shows the moderating effects of social support between mental health and burnout. In the step one R² value of .034 revealed that the burnout explained 3.4% variance in the mental
health with $F (1,298) = 10.42, p < .01$. In step 2 $R^2$ value of .044 revealed that burnout and social support explained 4.4% variance in mental health $F (2,297) = 7.93, p<0.05$. The $\Delta R^2$ value of .017 revealed 1.7% probability in the variance of model 1 and model 2 with $\Delta F (1,297) = 5.289, p<0.05$. Which shows weak moderation effect.

### Table 4
**Independent Sample t-test comparing Study Variables in Men and Women (N=300)**

| Variables | Men | Women | $t$ (298) | $p$ | LL | UL | Cohen’s d |
|----------|-----|-------|----------|-----|----|----|-----------|
| Burnout  | $M$ | $SD$  | $M$      | $SD$ | -1.803 | .068 | -4.66 | .169 | 0.22 |

Note: $p< 0.05$

Table 4 reveals non-significant differences on burnout based on gender with $t (298) = -1.803, p >.05$.

### Table 5
**Means, Standard deviation, $t$ value and $p$ value of Social Support in Males and Females**

| Variable | Men | Women | $t$ (298) | $p$ | LL | UL | Cohen’s d |
|----------|-----|-------|----------|-----|----|----|-----------|
| Social support | $M$ | $SD$  | $M$      | $SD$ | -1.101 | .272 | -2.72 | .7698 | 0.14 |

Note: $p<0.05$

The above table indicates that the value of social support on $p$-value is .272 that shows non-significant differences.

### Table 6
**Independent Sample t-test Comparing Study Variables in Men and Women (N=300)**

| Variable | Men | Women | $t$ (298) | $p$ | LL | UL | Cohen’s d |
|----------|-----|-------|----------|-----|----|----|-----------|
| Mental Health | $M$ | $SD$  | $M$      | $SD$ | -1.134 | .258 | -2.25 | .606 | 0.14 |

Note: $p< 0.05$

Table 6 revealed non-significant differences in mental health with $t (298) = -1.134, p >.05$.

### 5. Discussion and Conclusion

Many Social workers undergo difficult social and mental health requirements that effect their capability to encounter the necessities of vulnerable services. The findings highlight the importance of social support as a moderator between burnout and mental health of social workers. It is concluded from the current study’s findings that burnout does have an impact on mental health and the social support moderates this relationship. This result is in line with previous study in which modest to high degree of burnout detected among social workers (Hussein, 2018).

Results also declared that burnout was significantly and positively related with mental health. However, no direct correlation was observed between burnout and social support. A consequential positive relationship was observed between mental health and social support. Results provide a partial support for the moderating effects of social support between burnout and mental health. It may be due to some extraneous variables or weaknesses of collected data. While extant research has verified that healthy social support system can shield a stressed individual and has a
common beneficial function in preserving a positive affective state (Maulik, Eaton, & Bradshaw, 2011). Since, prolonged demands in one dimension necessitate ongoing exertion on the part of body and mind. Therefore, continuous exhaustion ultimately leads to psychophysiological consequences, as well as adverse long-term effects such as mental health issues. Thereby, the buffering effect of social support can alter people's perspective and thought patterns in response to stressors, as well as moderate people's appraisal mechanisms and minimize the influence of stressors on health issues. When a person is stressed, social support helps them to minimize the risks and types of stress by increasing their perceived coping abilities. Moreover, social support can also help an individual to develop problem-solving methods, minimize the severity of an issue, and lessen the negative impacts of stress (Barth, Schneider, & Von Känel, 2010; J.-M. Kim et al., 2014; Waite, Shanahan, Calkins, Keane, & O'Brien, 2011).

The findings further explored gender differences in burnout, mental health, and social support. No gender related differences were observed in burnout, mental health, and social support. Certainly, burnout is a critical issue in social workers, both in its commonness and its relationship with a wide scope of different issues for individuals, organizations, and probable for people with mental health problems whom they serve.

There are some limitations of this study. First, this study lacks the ability to predict causal relationships because of the cross-sectional method. In addition, it is also difficult to determine the reciprocal direction of the relationships based on the findings. For example, Burnout may also be influenced by mental health conditions. For future studies, it is proposed that longitudinal and experimental study designs be used to ensure accurate and robust conclusions. Second, this study used self-reported measurements, which may pose issues regarding common method variance leading to an overvaluation. Therefore, the use of objective rather than subjective measurements is encouraged in forthcoming studies. Third, self-efficacy and personality traits can be considered as a moderator in future studies. Additionally, future studies should examine the dimensions of burnout and social support since present study examined the total score of the variables only. Finally, control variables of age and education should be included in this study if supported by theoretical justifications.

Moreover, there is an extraordinary requirement for further upcoming research and exploration of burnout prevention and intercession projects. Specialists can draw upon discoveries and procedures from the current writing in mental health and different ways while creating and trying new burnout decrease projects. Specifically, for individual level interventions, different cognitive behavioral techniques seem helpful for further developing adapting abilities and decreasing burnout. As suggested by (Murphy, Trailer, & Hill, 1996) the utilization of multiple intervention methodologies is frequently useful than just focusing on a single technique. Therefore, the best projects for lessening burnout will be those that join individual and organizational Intercessions.

References
Acker, S. (1999). Realities of teachers’ work: Never a dull moment (Vol. 1). London and New York: Cassell: A&C Black.
Ahola, K., Vaananen, A., Koskinen, A., Kouvonen, A., & Shirom, A. (2010). Burnout as a predictor of all-cause mortality among industrial employees: a 10-year prospective register-linkage study. Journal of psychosomatic research, 69(1), 51-57.
Awa, W. L., Plaumann, M., & Walter, U. (2010). Burnout prevention: A review of intervention programs. Patient education and counseling, 78(2), 184-190. doi:https://doi.org/10.1016/j.pec.2009.04.008
Bakker, A. B., & Demerouti, E. (2007). The job demands- resources model: State of the art. Journal of managerial psychology, 22(3), 309-328. doi:https://doi.org/10.1108/02683940710733115
Barth, J., Schneider, S., & Von Känel, R. (2010). Lack of social support in the etiology and the prognosis of coronary heart disease: a systematic review and meta-analysis. *Psychosomatic medicine, 72*(3), 229-238.

Ben-Zur, H., & Michael, K. (2007). Burnout, social support, and coping at work among social workers, psychologists, and nurses: The role of challenge/control appraisals. *Social work in health care, 45*(4), 63-82. doi:https://doi.org/10.1300/J010v45n04_04

Bianchi, R., Schonfeld, I. S., & Laurent, E. (2014). Is burnout a depressive disorder? A reexamination with special focus on atypical depression. *International Journal of Stress Management, 21*(4), 307-324. doi: https://psycnet.apa.org/doi/10.1037/a0037906

Bove, L. L., & Pervan, S. J. (2013). Stigmatized labour: An overlooked service worker's stress. *Australasian marketing journal, 21*(4), 259-263. doi:https://doi.org/10.1016/j.ausmj.2013.08.006

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological bulletin, 98*(2), 310-357. doi:https://doi.org/10.1037/0021-9044-98.2.310

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied psychology, 86*(3), 499-512. doi:https://doi.org/10.1037.0021-9009.86.3.499

Gao, Y.-Q., Pan, B.-C., Sun, W., Wu, H., Wang, J.-N., & Wang, L. (2012). Anxiety symptoms among Chinese nurses and the associated factors: a cross sectional study. *BMC psychiatry, 12*(1), 1-9. doi:https://doi.org/10.1186/1471-244X-12-141

Gillani, S., Shafiq, M. N., & Ahmad, T. I. (2019). Military Expenditures and Health Outcomes: A Global Perspective. *iRASD Journal of Economics, 1*(1), 1-20. doi:https://doi.org/10.52131/joe.2019.0101.0001

Graber, J. E., Huang, E. S., Drum, M. L., Chin, M. H., Walters, A. E., Heuer, L., . . . Quinn, M. T. (2008). Predicting changes in staff morale and burnout at community health centers participating in the health disparities collaboratives. *Health services research, 43*(4), 1403-1423. doi:https://doi.org/10.1111/j.1475-6773.2007.00828.x

Gyorffy, Z., Dweik, D., & Girasek, E. (2016). Workload, mental health and burnout indicators among female physicians. *Human resources for health, 14*(1), 1-10. doi:https://doi.org/10.1186/s12960-016-0108-9

Huang, H.-Y., Wu, K.-S., Wang, M.-L., & Tang, P.-S. (2015). Moderating the effect of supervisor support on work-to-family conflict and burnout relationship. *Studies on Ethno-Medicine, 9*(2), 263-278. doi:https://doi.org/10.1080/09735070.2015.11905444

Humayun, A. (2017). Mental Health and Work. DAWN. Retrieved from DAWN.COM

Hussein, S. (2018). Work engagement, burnout and personal accomplishments among social workers: A comparison between those working in children and adults’ services in England. *Administration and Policy in Mental Health and Mental Health Services Research, 45*(6), 911-923. doi:https://doi.org/10.1007/s10488-018-0872-z

Johnson, J., Hall, L. H., Berzins, K., Baker, J., Melling, K., & Thompson, C. (2018). Mental healthcare staff well- being and burnout: A narrative review of trends, causes, implications, and recommendations for future interventions. *International journal of mental health nursing, 27*(1), 20-32. doi: https://doi.org/10.1111/inm.12416

Keyes, C. L. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of health and social behavior, 43*(2), 207-222. doi:https://doi.org/10.2307/3090197

Kim, H., Ji, J., & Kao, D. (2011). Burnout and physical health among social workers: A three-year longitudinal study. *Social work, 56*(3), 258-268. doi:https://psycnet.apa.org/doi/10.1093/sw/56.3.258

Kim, J.-M., Stewart, R., Kim, S.-W., Kang, H.-J., Kim, S.-Y., Lee, J.-Y., . . . Yoon, J.-S. (2014). Interactions between a serotonin transporter gene, life events and social support on suicidal ideation in Korean elders. *Journal of affective disorders, 160*, 14-20.

Kimes, A. T. (2016). *Burnout rates among social workers: A systematic review and synthesis.* (398)

Maheri, A., Sadeghi, R., Shojaeizadeh, D., Tol, A., Yaseri, M., & Rohban, A. (2018). Depression, anxiety, and perceived social support among adults with beta-thalassemia major: cross-
sectional study. *Korean journal of family medicine*, 39(2), 101-107. doi:https://doi.org/10.4082%2Fkjfm.2018.39.2.101

Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *Maslach Burnout Inventory Manual*: Palo Alto, CA, Consulting Psychological Press.

Maulik, P. K., Eaton, W. W., & Bradshaw, C. P. (2011). The effect of social networks and social support on mental health services use, following a life event, among the Baltimore Epidemiologic Catchment Area cohort. *The journal of behavioral health services & research*, 38(1), 29-50.

Morse, G., Salyers, M. P., Rollins, A. L., Monroe-DeVita, M., & Pfahler, C. (2012). Burnout in mental health services: A review of the problem and its remediation. *Administration and Policy in Mental Health and Mental Health Services Research*, 39(5), 341-352. doi:https://doi.org/10.1007/s10488-011-0352-1

Murphy, G. B., Trailer, J. W., & Hill, R. C. (1996). Measuring performance in entrepreneurship research. *Journal of business research*, 36(1), 15-23. doi:https://doi.org/10.1016/0148-2963(95)00159-X

Ruisoto, P., Ramírez, M. R., García, P. A., Paladines-Costa, B., Vaca, S. L., & Clemente-Suárez, V. J. (2021). Social support mediates the effect of burnout on health in health care professionals. *Frontiers in Psychology*, 11, 3867. doi:https://doi.org/10.3389/fpsyg.2020.623587

Santa Maria, A., Wörfel, F., Wolter, C., Gusy, B., Rotter, M., Stark, S., . . . Renneberg, B. (2018). The role of job demands and job resources in the development of emotional exhaustion, depression, and anxiety among police officers. *Police Quarterly*, 21(1), 109-134. doi:https://doi.org/10.1177%2F2F1098611117743957

Schaufeli, W. (2017). The job demands-resources model: a ‘how to’ guide to increase work engagement and prevent burnout. *Organizational Dynamics*, 46, 120-132. doi:http://doi.org/10.1016/j.orgdyn.2017.04.008

Shafiq, M. N., & Gillani, S. (2018). Health Outcomes of Remittances in Developing Economies: An Empirical Analysis. *Pakistan Journal of Economic Studies*, 1(1), 1-20.

Skirrow, P., & Hatton, C. (2007). ‘Burnout’ amongst direct care workers in services for adults with intellectual disabilities: a systematic review of research findings and initial normative data. *Journal of Applied Research in Intellectual Disabilities*, 20(2), 131-144. doi:https://doi.org/10.1111/j.1468-3148.2006.00311.x

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. doi:https://doi.org/10.1037/0022-006x.51.5.730

Waite, E. B., Shanahan, L., Calkins, S. D., Keane, S. P., & O’Brien, M. (2011). Life events, sibling warmth, and youths’ adjustment. *Journal of Marriage and Family*, 73(5), 902-912.

Wb, M. C. S., & Leiter, M. (2001). Job burnout. *Annual Review of Psychology*, 52(1), 397-422. doi:https://psycnet.apa.org/doi/10.1146/annurev.psych.52.1.397

World Health Organization. (2014). Mental health: a state of well-being. Retrieved from http://www.who.int/features/factfiles/mental_health/en/

Zhang, H., Ye, Z., Tang, L., Zou, P., Du, C., Shao, J., . . . Mu, S. Y. (2020). Anxiety symptoms and burnout among Chinese medical staff of intensive care unit: the moderating effect of social support. *BMC psychiatry*, 20(1), 1-7. doi:https://doi.org/10.1186/s12888-020-02603-2

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of personality assessment*, 52(1), 30-41. doi:https://psycnet.apa.org/doi/10.1207/s15327752jpa5201_2