

# Mediating Role of Coping Strategy Between Imposter Phenomenon and Psychosocial Impact of COVID-19 on Pakistani Healthcare Professionals

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## Abstract

The current study aims to determine the relationship among the imposter phenomenon, coping strategies, and the psychosocial impact of COVID-19 on Pakistani healthcare professionals. It was also aimed to determine the role of coping strategies as a mediator between the imposter phenomenon and the psychosocial impact of Covid-19. In the current study, correlation research design and purposive sampling were used to gather data from both private and government hospitals. The total sample size comprised (116) participants. Imposter Phenomenon Scale (IPS), Brief Cope Scale (BCS), and Psychosocial Impact Scale (PIS) along with a demographic information sheet were used to assess the study variables in the targeted population. Results showed a significant relationship among all variables. Furthermore, the imposter phenomenon was a significant predictor of psychosocial impact due to COVID-19. Coping strategies were found to play a mediating role between the imposter phenomenon and the psychosocial impact of COVID-19. The results of this study help clinical psychologists devise more training programs and therapeutic interventions for medical students as well as health care professionals.

**Keywords:** Imposter phenomenon, coping strategies, psychosocial impact, COVID-19

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## INTRODUCTION

Healthcare professionals require a graduate degree in medicine and must possess competence, responsibility, commitment, and care (Coulahan & Block, 2006). Doctors typically use medical devices such as stethoscopes and tongue depressors to examine patients. They then take a medical history and identify symptoms before making a diagnosis (Sikander, 2023). Nursing is a vital profession in the healthcare field. It involves providing care and assistance to patients and supporting doctors in their work. Nurses are responsible for the well-being of patients and often work alongside doctors to provide healthcare services. In modern times, the traditional role of nurses has evolved into a more comprehensive healthcare provider. They work in a range of different settings to provide medical care (Sekse et al., 2018).

The imposter phenomenon refers to the psychological experience of feeling that one's accomplishments are the consequence of luck, working harder than others, or manipulating other people's perceptions rather than true skill. It was initially believed to be more common among women. However, surveys have found no gender differences. It was hypothesized that women may experience it more due to cultural stereotypes (Hutchins et al., 2018). A considerable amount of research has been conducted on the imposter phenomenon in education and healthcare. University of Nottingham professor Aimee Aubeeluck defines this as an "internal feeling of intellectual phoniness". It is most commonly experienced among (Aubeeluck et al., 2016). Impostor syndrome is commonly associated with high achievers, particularly prevalent among healthcare practitioners who are new to their professions. However, senior practitioners are not immune. The Impostor Phenomenon, according to a recent study found that the main cause why women continue to lag behind men in terms of professional advancement (Bedwell, 2022).

The theory of resource conservation (Hobfoll et al., 1989) focused mainly on the significance of resources in avoiding negative situations. It also found that others provide some external resources such as financial or social assistance, while some are internal like self-motivation. Resources are invested to satisfy job demands and acquire extra resources, according to COR theory. Employees with high task self-efficacy and patience are more successful. They handle problems efficiently and use fewer attentional resources to achieve their goals. Personal resources contribute to future goal achievement.

High-IP individuals spend more resources, while individuals with low-IP tend to over-perform and be involved in maladaptive perfectionistic activities to avoid appearing as a slacker and disguising their anxieties (Jensen & Deemer, 2020). People with high impostor tendencies may feel incapable and afraid of failure even after achieving success because they attribute their success to external factors rather than their own abilities. This is different from individuals with low impostor tendencies who may have limited self-esteem and confidence (Sheveleva et al., 2023). The imposter phenomenon is a common psychological trait experienced by many. Acknowledge these feelings and learn to overcome them to gain confidence in your abilities (Bravata et al., 2019). The individual level of analysis is emphasized due to negative critical self-concept and harms those who encounter it.

Social hierarchy can impact impostor feelings, particularly for those in lower social strata (Feenstra et al., 2020). It is a plethora of social-psychological studies that people in society who are

frequently associated with the impostor “syndrome” like women and racial minorities, are likewise subjected to chronic un-favorable categorize (Harell & Hinckley, 2022). Healthcare workers face challenging situations every day, which are influenced by the country's economy. Healthcare personnel may not be adequately prepared and supported to handle the pressures of their job, which can affect their working environment. In stressful situations, healthcare professionals commonly use strategies such as continuing with their normal routines, considering alternative options, maintaining control of the situation, and gathering resources (Healy & Tyrrell, 2011). Nurses work extended shifts and experience high levels of stress and exhaustion (Ejebu, 2021).

Stress is the body's reaction to demanding situations and some stress can improve job performance, too much can be overwhelming. Anything that puts a lot of pressure on you can be stressful (Daniel, 2019). Some of the most common external sources of stress include significant life changes, problems in relationships, financial difficulties, being overworked, and family and children. Some of the most prevalent internal stresses are pessimism, reluctance to adapt, uncompromising thinking, pessimistic self-talk, rigidity / high expectations, all-or-nothing mentality (Labrague & McEnroe-Petitte, 2018).

Many people react differently to tough circumstances, and stress can change their way of thinking (Khalid et al., 2016), several studies have found a correlation between stress and various coping strategies (Folkman, 2010). Coping strategies are cognitive and behavioral actions that help people cope with stressful situations and these strategies are used when the necessitates of the situation exceed one's ability to cope (Martnez, 2020). Studies have indicated that the implementation of coping mechanisms can lead to a decrease in stress levels. Different people have different coping styles including managing expectations, taking responsibility, problem-solving, seeking support, managing emotions, reconsidering old ideas, reducing stress, changing the environment, and considering religious perspectives (Gurvich, 2021). Positive attitudes and problem-solving are effective coping tactics, while avoidance strategies increase emotional suffering (Caricati et al., 2015). Prolonged exposure to stress can have a significant impact on individuals' psychological and social well-being. It can lead to a variety of negative outcomes such as anxiety, depression, social withdrawal, and reduced productivity (Godinic et al., 2020). Stress can also affect relationships with loved ones and cause physical health problems if left unchecked. Therefore, managing stress is crucial to maintaining a healthy and fulfilling life (P. et al., 2024).

Psychosocial activities study the interrelation between societal problems, personal states, and cultural frameworks. During the 2003 SARS outbreak, frontline healthcare workers experienced significant psychological distress, according to studies conducted in Canada, Taiwan, and Hong Kong (Chong, 2004). The outbreak of viral diseases like COVID-19 can cause severe stress and anxiety, especially for frontline workers such as healthcare professionals, police officers, and members of the armed services. These individuals are at a higher risk of contracting the virus due to their exposure to COVID-19 patients, which can lead to quarantine and fear of getting infected. These factors can impact mental health (Ganesan et al., 2021).

Healthcare practitioners in China are encountering difficulties while dealing with COVID-19 patients who are uncooperative and panic-stricken. Some medical teams are isolating and quarantining patients who have either confirmed or suspected COVID-19. This scenario is causing

significant mental distress, especially for patients who are separated from their families. Healthcare professionals who have prior chronic illnesses are at a higher risk of developing severe and unfavorable outcomes (Chen, 2020). A study conducted on frontline healthcare workers in Pakistan revealed that psychosocial strengths, including resilience and self-control, can help in managing COVID-19 stigma and fears. Positive coping mechanisms can also be improved with self-restraint (Saleem & Dastgeer, 2020).

The World Health Organization has expressed concern and anxiety over the global impact of the highly contagious disease (WHO, 2020). The COVID-19 pandemic and the endless stream of information on social media can have negative psychological effects on sensitive individuals. Mass panic and terror related to the virus may result in long-term psychological disorders in the general population, which could be more detrimental than the illness itself (Depoux et al, 2020). During Covid-19, all healthcare professionals face life-threatening situations yet they serve their duties within the whole time. Healthcare professionals were less focused in previous studies and they are necessary to focus them in research as they face many psychological as well as social issues. In Pakistan there are extensive research work has been done on Perfectionism coping and psychological distress in doctors, but there is no research has been done assessing the relationship between imposter phenomenon, coping, and the psychosocial impact of COVID-19 on healthcare professionals. The coping and Psychosocial impact of COVID-19 is a serious issue during COVID-19 but this phenomenon has not yet been explored, so this research study will provide a framework for further studies on mentioned variables. This study aims to assess coping strategies playing a mediating role between the imposter phenomenon and the psychosocial impact of COVID-19. The following hypotheses are formed based on the literature review:

H1. Imposter phenomenon and coping are likely to be significant predictors of the psychosocial impact of COVID-19.

H2. Coping strategies are likely to mediate between the imposter phenomenon and the psychosocial impact of COVID-19.

## **METHODOLOGY**

A correlational research design was used in this study. The participants were selected through purposive sampling techniques. A sample of 116 participants was selected using the G-Power analysis technique. The effect size was set at  $p=0.30$  for the medium level, with a power of 95 and an alpha-level probability of approximately 0.05. The data was collected from government hospitals located in Sialkot City, Pakistan.

### **Inclusion/Exclusion Criteria**

The participants (healthcare professionals) having MBBS degrees, nursing degrees, and frontline medical services providers including both sectors of private and government hospitals of Sialkot with an age range from 20 to 60 years were taken for the current study. Furthermore, participants must be from government hospitals in the geographical location of Sialkot and Healthcare Professionals who worked or performed duties in COVID wards. Healthcare professionals having a history of any chronic physical were excluded from this study.

## Measures

### Demographic Information Sheet

The demographic information sheet was created to collect data. It included variables such as age, gender, education, marital status, and coronavirus exposure. An informed consent form in Urdu language was used to get written consent from participants while ensuring confidentiality.

### Clance Imposter Scale (Clance & Imes, 1978)

It consists of 20 self-report items to which respondents respond on a 5-point Likert scale. As a result, the overall score on the scale ranges from 20 to 100, with 61–80 reflecting strong impostor feelings and 81–100 indicating high impostor feelings. The imposter scale was created to help people figure out if they have impostor characteristics like fear of being judged, doubt thinking regarding their abilities, sentiments of deception, worry of being revealed as a fraudster by others, and the tendency to devalue one's accomplishments and blame them on other circumstances the measure was translated in the Urdu language by the permission of the author. The scale was translated through MAPI guidelines, for the current study its high level of internal consistency with reporting alpha values ranging from .84 to .96.

### Brief Cope Scale (Carver, 1997)

Brief COPE (Carver, 1997), a 28-item self-report questionnaire with two items for each of the coping strategies, measures 14 theoretically identified coping responses. Overall it has three higher-order factors including problem-focused coping, emotion-focused coping, and avoidant coping. The scale was translated into Urdu language by the permission of the author. The scale was translated through MAPI guidelines.

### Psychosocial Impact Scale (Mahmood et al., 2021)

The psychosocial impact scale is a 27-item self-report tool for evaluating psychosocial reactions. The participants were asked to score each item on a 4-point Likert scale to the amount to which it meant something to them (0-3). On the 26 items, the internal consistency of the whole COVID-19 Psychosocial Impact Scale is determined to be high and strong .92. Internal consistency was particularly strong for the sub-factors depressed symptom and apprehension, with alpha values of  $=.91$  and  $=.79$ , respectively. The split-half reliability of the Psychosocial Impact Scale was also established, with the scale being divided into two halves using the Odd/Even approach, and the analysis revealing a split-half reliability of  $r=.91$ .

## Procedure

The study conducted by the Department of Clinical Psychology, University of Management and Technology (UMT) in Sialkot received formal permission from the institutional research committee. Authors were also contacted for permission to use their research protocols, and government and private hospitals were approached for data collection. A pilot study with 10 participants was conducted initially, which indicated no major changes were needed. The complete

study involved 116 participants who were given three scales and a demographic Performa to fill out. Data collection lasted approximately 4 months, during which healthcare professionals faced difficulties due to the second wave of COVID-19. Despite these challenges, the response rate was satisfactory with only 12 forms discarded.

**Sample Description**

The demographic characteristics of the 116 participants include mean age of participants was 28.07 years, (SD=7.49). The majority of participants were women (62.1%) and the majority worked in non-doctor professions (57.8% nurses). Additionally, a notable proportion of participants reported being affected by COVID-19 (33.6%). These findings provide insight into the demographic composition of the study sample, which includes a diverse representation of age, gender, profession, and COVID-19 status.

**RESULTS & FINDINGS**

**Table 1**

*Series of Regression Analyses showing Coping Strategies as a Mediator between Imposter Phenomenon (Predictor) and Psychosocial Impact of COVID-19 (Outcome) in Healthcare Professionals (N=116)*

Predictors	$\Delta R^2$	$\beta$
Step 1 – Imposter Phenomenon as an Outcome (Path A-C)		
Psychosocial impact of COVID-19	.20	.45***
Total R <sup>2</sup>	.20	
Step 2 – Imposter Phenomenon as an Outcome (Path A-B)		
Coping Strategies		.31***
Total R <sup>2</sup>	.09	
Step 3 – Coping Strategies as an Outcome		
Psychosocial Impact Of COVID-19 (Path B-C)		.09
		.31***
Total R <sup>2</sup>	.09	
Step 4 – Coping Strategies Mediating between Imposter Phenomenon and Psychosocial Impact Of COVID-19		
Model 1		
Imposter Phenomenon	.09	.31***
Total R <sup>2</sup>		
Model 2		
Imposter Phenomenon	.03	.21*
Psychosocial Impact Of COVID-19		.21*
Total R <sup>2</sup>	.13	

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

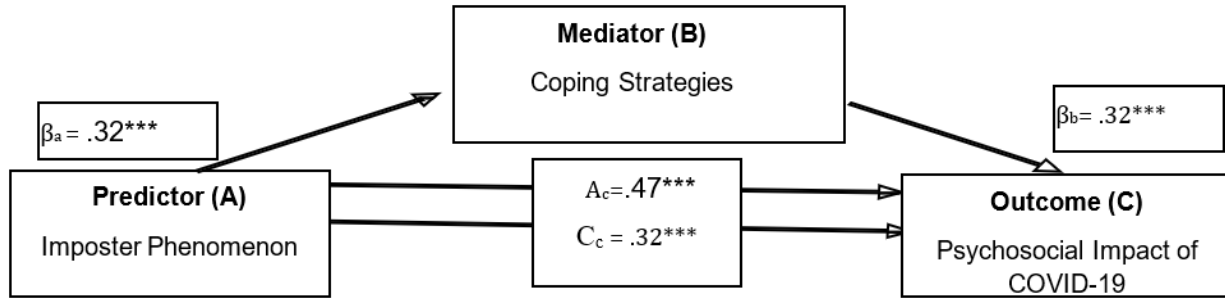


Figure 1: Emerged Model of Mediation Analysis

For the first mediation analysis, the imposter phenomenon was taken as a predictor and psychosocial impact of COVID-19 as outcome in step one. The analysis showed that imposter phenomenon strongly predicted psychosocial Impact of covid-19,  $b = .530$ ,  $t(1,114) = 29.900$ ,  $p < .001$ . In step 2 Imposter Phenomenon was taken as a predictor and coping strategies (Outcome) was taken as an outcome. The analysis showed that imposter phenomenon significantly predicted imposter tendencies in healthcare professionals during pandemic,  $b = .476$ ,  $t(1,114) = 12.376$ ,  $p < .001$ . In step 3 coping strategies were taken as a predictor and psychosocial impact (dependent) was taken as an outcome. The analysis showed that coping strategies were a significant predictor of psychosocial impact,  $b = .206$ ,  $t(1,114) = 12.376$ ,  $p < .001$ .

To assess the mediating role of coping strategies between the imposter phenomenon and psychosocial impact, a hierarchical regression analysis was performed in step 4 by controlling the mediator (coping strategies). The analysis showed that coping strategies partially mediated the relationship between imposter phenomenon and Psychosocial impact as the effect of coping strategies on imposters tendencies was reduced in step 4 but remained significant,  $b = .206$ ,  $t(1,114) = 12.376$ ,  $p < .001$ . Sobel test was further conducted and found partial mediation in the model ( $z = 2.22$ ,  $p = .026$ ).

## Discussion

The current study aims to investigate the relationship among imposter phenomenon, coping strategies, and psychosocial impact of COVID-19 in health care professionals. The pandemic period was very challenging for healthcare professionals and it was needed to assess their psychological health. For this purpose, different assessment measures were used to explore the phenomenon. This result is also supported by existing literature that showed that the SARS and Middle East Respiratory Syndrome (MERS) outbreaks have revealed that medical professionals are not only stressed during epidemics, but they might also suffer mentally long after the outbreak has ended. Previous studies revealed that even though each epidemic differs in terms of geographic location, pathogen characteristics, transmission channel, infectivity, death rate, and treatment availability, epidemics have a considerable impact on the psychological well-being of healthcare professionals (Cámara et al., 2020).

Another research also revealed that emotional coping is positively connected to IP, according to the findings, and professionals with moderate-high levels of IP used more adaptive coping methods to deal with imposter ideas (Bonetto et al., 2023). The current study showed that problem-focused

coping was found to be a significant negative predictor of the psychosocial impact of covid-19 in healthcare professionals which means that psychosocial impacts adversely affect problem-focused coping. To prove the finding existing literature provides information on several healthcare professionals, psychosocial, and organizational risk factors for the negative psychological effects seen in healthcare workers during the COVID-19 epidemic (Fteropoulli et al., 2021).

## **CONCLUSION**

The research aimed to examine the connection between the imposter phenomenon, coping strategies, and the psychosocial impact of the COVID-19 pandemic on healthcare professionals. The study revealed that coping strategies have a significant mediating effect between the imposter phenomenon and psychosocial impact. Additionally, the findings indicated that women tend to experience imposter feelings more frequently than men.

## **Limitation & Suggestions**

It was observed in the study was the time constraint, was imposed due to the length of the tools and the time required to obtain authorization to use them, due to the Covid problem, hospitals were not permitted to gather data, and several other psychological aspects that should be addressed, and qualitative research should be performed to better understand the in-depth and experiences of those who have been affected.

## **Implications**

The purpose of this study was to examine and assess the level of imposter tendencies toward healthcare professionals. The outcome of the current study has clinical implications as well as it provides a guideline for researchers and professionals of psychology to facilitate future research. It also helped in psychoeducation and intervention plans for healthcare professionals in epidemic situations. The study will provide a valid and reliable scale to assess the psychosocial impact of Corona Virus Disease on healthcare professionals in a cultural context.

## **Competing Interests**

The authors did not declare any known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## **REFERENCES**

- Aubeeluck, A., Stacey, G., & Stupple, E. J. N. (2016). Do graduate entry nursing students experience the imposter phenomenon? Center for Disease Control & Prevention. Coping with Stress. <https://doi.org/10.1016/j.nepr.2016.06.003>
- Bedwell, B. J. (2022). Overcoming the Imposter Phenomenon: Exploring the Strategies Secondary Educators Used to Cope During the COVID-19 Pandemic (Doctoral dissertation, University of Massachusetts Global). [https://digitalcommons.umassglobal.edu/edd\\_dissertations/449](https://digitalcommons.umassglobal.edu/edd_dissertations/449)

- Bonetto, E., Guiller, T., & Pavani, J.-B. (2023). Imposter Syndrome and (Mal)Adaptive Cognitive Emotion Regulation Strategies among PHD Candidates. <https://doi.org/10.31234/osf.io/atyb6>
- Cámara, M., Miravete, M., & Navarro, E. (2020). An Epidemic Model for Economical Impact Predicting and Spatiotemporal Spreading of Covid-19. <https://doi.org/10.1101/2020.09.02.20186551>
- Caricati, L., Foà, C., Fruggeri, L., & Tonarelli, A. (2015). Cope-NVI-25: Validazione Italiana della Versione Ridotta della coping orientation to the problems experienced (cope-nvi). *PSICOLOGIA DELLA SALUTE*, (2), 123–140. <https://doi.org/10.3280/pds2015-002007>
- Carver, C. S. (1997). You want to measure coping but your protocol' too long: Consider the brief cope. *International Journal of Behavioral Medicine*, 4(1), 92–100. [https://doi.org/10.1207/s15327558ijbm0401\\_6](https://doi.org/10.1207/s15327558ijbm0401_6)
- Chan, A. O. (2004). Psychological impact of the 2003 severe acute respiratory syndrome outbreak on health care workers in a medium size regional General Hospital in Singapore. *Occupational Medicine*, 54(3), 190–196. <https://doi.org/10.1093/occmed/kqh027>
- Chen, Q., Liang, M., Li, Y., Guo, J., Fei, D., Wang, L., He, L., Sheng, C., Cai, Y., Li, X., Wang, J., & Zhang, Z. (2020). Mental health care for medical staff in China during the COVID-19 Outbreak. *The Lancet Psychiatry*, 7(4). [https://doi.org/10.1016/s2215-0366\(20\)30078-x](https://doi.org/10.1016/s2215-0366(20)30078-x)
- Clance, P. R., & Imes, S. A. (1978). The imposter phenomenon in high achieving women: Dynamics and therapeutic intervention. *Psychotherapy: Theory, Research & Practice*, 15(3), 241–247. <https://doi.org/10.1037/h0086006>
- Coulehan, J. L., & Block, M. R. (2006). *The Medical Interview: Mastering Skills for Clinical Practice*. F.A. Davis Co. 978-0803612464
- Daniel, C. O. (2019). Effects of job stress on employee's performance. *International Journal of Business, Management and Social Research*, 6(2), 375-382. <https://doi.org/10.18801/ijbmsr.060119.40>
- Depoux, A., Martin, S., Karafillakis, E., Preet, R., Wilder-Smith, A., & Larson, H. (2020). The pandemic of social media panic travels faster than the covid-19 outbreak. *Journal of Travel Medicine*, 27(3). <https://doi.org/10.1093/jtm/taaa031>
- Ejebu, O. Z., Dall'Ora, C., & Griffiths, P. (2021). Nurses' experiences and preferences around shift patterns: a scoping review. *PLoS One*, 16(8), e0256300. <https://doi.org/10.1371/journal.pone.0270446>
- Feenstra, S., Begeny, C. T., Ryan, M. K., Rink, F. A., Stoker, J. I., & Jordan, J. (2020). Contextualizing the impostor “syndrome.” *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.575024>

- Folkman, S., Lazarus, R.S. (1988). Coping as a mediator of emotion. *J. Pers. Soc. Psychol.* 54(3), 466–475. <https://doi.org/10.1037/0022-3514.54.3.466>
- Fteropoulli, T., Kalavana, T. V., Yiallourou, A., Karaiskakis, M., Koliou Mazeri, M., Vryonides, S., Hadjioannou, A., & Nikolopoulos, G. K. (2021). Beyond the physical risk: Psychosocial impact and coping in healthcare professionals during the COVID-19 pandemic. *Journal of Clinical Nursing.* <https://doi.org/10.1111/jocn.15938>
- Ganesan, B., Al-Jumaily, A., Fong, K. N., Prasad, P., Meena, S. K., & Tong, R. K.-Y. (2021). Impact of coronavirus disease 2019 (covid-19) outbreak quarantine, isolation, and lockdown policies on Mental Health and Suicide. *Frontiers in Psychiatry*, 12. <https://doi.org/10.3389/fpsy.2021.565190>
- Godinic, D., Obrenovic, B., & Khudaykulov, A. (2020). Effects of economic uncertainty on mental health in the COVID-19 pandemic context: Social Identity Disturbance, job uncertainty and psychological well-being model. *International Journal of Innovation and Economic Development*, 6(1), 61–74. <https://doi.org/10.18775/ijied.1849-7551-7020.2015.61.2005>
- Gurvich, C., Thomas, N., Thomas, E. H., Hudaib, A. R., Sood, L., Fabiatos, K., ... & Kulkarni, J. (2021). Coping styles and mental health in response to societal changes during the COVID-19 pandemic. *International Journal of Social Psychiatry*, 67(5), 540-549. <https://doi.org/10.1177/0020764020961790>
- Harell, A., & Hinckley, R. A. (2022). Racial attitudes and opposition to immigration. *Comparative Public Opinion*, 331–348. <https://doi.org/10.4324/9781003121992-20>
- Healy, S., & Tyrrell, M. (2011). Stress in emergency departments: Experiences of nurses and doctors. *Emergency Nurse*, 19(4), 31–37. <https://doi.org/10.7748/en2011.07.19.4.31.c8611>
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513–524. <https://doi.org/10.1037/0003-066X.44.3.513>
- Hutchins, H. M., Penney, L. M., & Sublett, L. W. (2018). What imposters risk at work: Exploring imposter phenomenon, stress coping, and job outcomes. *Human Resource Development Quarterly*, 29(1), 31-48. <https://doi.org/10.1002/hrdq.21304>
- Jensen, L. E., & Deemer, E. D. (2020). Attachment style and self-handicapping: The mediating role of the imposter phenomenon. *Social Psychology of Education*, 23(5), 1259-1276. <https://doi.org/10.1007/s11218-020-09580-0>
- Khalid, I., Khalid, T. J., Qabajah, M.R., Barnard, A.G., & Qushmaq, I.A. (2016). Healthcare workers emotions, perceived stressors and coping strategies during a MERS-CoV outbreak. *Clin. Med. and Res.* 14 (1), 7–14. <https://doi.org/10.3121/cmr.2016.1303>
- Labrague, L. J., & McEnroe-Petitte, D. (2018). Job stress in new nurses during the transition period: an integrative review. *International nursing review*, 65(4), 491-504. <https://doi.org/10.1111/inr.12425>

- Mahmood, Z., Saleem, S., Subhan, S., & Jabeen, A. (2021). Psychosocial reactions of Pakistani students towards covid-19: A prevalence study. *Pakistan Journal of Medical Sciences*, 37(2). <https://doi.org/10.12669/pjms.37.2.3063>
- Martínez, J. P., Méndez, I., Ruiz-Esteban, C., Fernández-Sogorb, A., & García-Fernández, J. M., (2020). Profiles of Burnout, Coping Strategies and Depressive Symptomatology. *Frontiers in Psychol*, 11, 591. <https://doi.org/10.3389/fpsyg.2020.00591>
- P., G., Aithal, P. S., & D., K. (2024). Impact of work-life balance and stress management on job satisfaction among the working women in higher educational institutions in Namakkal District. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4744545>
- Saleem, M., Dastgeer, S., Durrani, A. K., Saad, A. A., Manzoor, Z., & Hussain, H. N. (2020). Self-control mediates the relationship between psychosocial strengths and perceived severity of COVID-19 among frontline healthcare professionals of Pakistan: A single center experience. *Pakistan Journal of Medical Sciences*, 36(COVID19-S4). <https://doi.org/10.12669/pjms.36.covid19-s4.2662>
- Sekse, R. J. T., Hunskår, I., & Ellingsen, S. (2018). The nurse's role in palliative care: A qualitative meta-synthesis. *Journal of Clinical Nursing*, 27(1-2), e21-e38. <https://doi.org/10.1111/jocn.13912>
- Sheveleva, M. S., Permyakova, T. M., & Kornienko, D. S. (2023). Perfectionism, the impostor phenomenon, self-esteem, and personality traits among Russian College students. *Psychology in Russia: State of the Art*, 16(3), 132–148. <https://doi.org/10.11621/pir.2023.0310>
- Sikander, S., Biswas, P., & Kulkarni, P. (2023). Recent advancements in telemedicine: surgical, diagnostic and consultation devices. *Biomedical Engineering Advances*, 100096. <https://doi.org/10.1016/j.bea.2023.100096>
- World Health Organization. (2020). Statement – physical and mental health key to resilience during COVID-19 pandemic. World Health Organization. <https://www.who.int/europe/news/item/26-03-2020-statement-physical-and-mental-health-key-to-resilience-during-covid-19-pandemic>