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Breaking Points: Exploring the Well-Being of Egyptian Social Workers Amid Covid-19

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Abstract

The COVID-19 pandemic has brought unprecedented challenges and stressors for social workers, often at the forefront of responding to crises. The pandemic has disrupted their professional practices, increased their workload, and exposed them to health risks. As a result, the well-being of social workers has become a growing concern, especially in countries with limited resources. The present study used a cross-sectional web-based survey to assess the prevalence rates of anxiety, stress, sleep quality, and overall well-being in a sample of 216 social workers employed in public medical facilities in Egypt during the COVID-19 epidemic. It also investigated the factors that influence their well-being. The results showed that half of the social workers (51.4%) scored 10 or higher on the General Anxiety Disorder scale (GAD-7), 83.3% scored ≥ 14 on PSS-10, and the mean score for sleep quality was 7.24 (SD=2.10). Over half (58.3%) scored 50 or lower on the World Health Organization Wellbeing scale (WHO-5). Multivariable logistic regression analysis showed that younger social workers and those who scored ≤ 9 on GAD-7 were more likely to report a higher level of well-being. A higher score on PSS-10 was associated with a decrease in overall well-being. Working with family members of COVID-19 patients and sleep quality were not associated with WHO-5. These findings highlight the significant impact of the COVID-19 pandemic on the mental health of social workers in Egypt, underscoring the importance of providing adequate support and resources to address their well-being.

Keywords COVID-19 · Anxiety · Social workers · Mental health · Egypt · Perceived stress · Shared Trauma · Wellbeing

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Introduction

Well-being encompasses a holistic assessment of an individual or group's overall physical, mental, and social health (Centers for Disease Control, 2018). The World Health Organization (WHO, 1948) defines well-being as "complete physical, mental, and social well-being, instead of just being free of disease or infirmity." Various factors contribute to well-being, including safety, comfort, nutrition, sleep, fitness, social interactions, and a sense of purpose (La Placa et al., 2013; McNaught, 2011). Subjective well-being can be understood as the interconnected experiences of life satisfaction, pleasant emotions, and unpleasant emotions (Diener et al., 2018).

Though attempts to define well-being have sparked extensive discussion, research has found that its promotion impacts the productivity and performance of nations. A study by DiMaria et al. (2020) found that higher levels of subjective well-being are associated with increased



productivity, emphasizing the importance of considering well-being in economic contexts. Shier and Graham (2011) have shown how work-related factors such as environment, job design, interrelationships, and workload management affect professionals' well-being. For social workers, factors impacting well-being also include ethical responsibilities, economic constraints, moral distress, resources, and supervision (Mänttäri-Van der Kuip, 2015) as well as support from professional associations and educational programs (Graham & Shier, 2014). Despite these challenges, social workers often experience a sense of engagement and fulfillment in their work. Positive work experiences are partly influenced by the support and resources provided by their work community and immediate supervision.

In the wake of the COVID-19 pandemic, healthcare workers (HCWs) worldwide, including medical social workers, have confronted unparalleled challenges that have profoundly affected their well-being and the delivery of their professional services. In Egypt, a country grappling with the repercussions of the pandemic, medical social workers have been at the forefront of efforts to provide essential support and care to individuals and families affected by the virus. The COVID-19 pandemic also has had a significant impact on the mental health of various groups in Egypt, including the general public (Arafa, 2020), HCWs (El Nagar et al., 2022; Ahmed et al., 2021), and social work students (Keesler et al., 2023). The prevalence of depression, anxiety, and stress has been high, with factors such as gender, age, and lack of emotional support playing a role (Arafa, 2020). HCWs have experienced high levels of stress, particularly during and after the pandemic waves (El Nagar et al., 2022), and have reported higher rates of anxiety, depression, and obsessive-compulsive disorder compared to the general population (Ahmed et al., 2021). The pandemic has also had a negative impact on the psychosocial status of the Egyptian population, with higher prevalence rates of anxiety, depression, and obsessive-compulsive disorder compared to the Saudi population (El-slamoni, 2022).

Moreover, the unique socio-cultural context of Egypt adds another layer of complexity to the experiences of medical social workers, as they navigate cultural norms, religious beliefs, and socioeconomic disparities while delivering care. However, little is known about the impact of the pandemic on Egyptian medical social workers and their wellbeing. This investigation delves into the experiences of medical social workers in Egypt during the pandemic, aiming to shed light on the multifaceted impacts it has had on their lives and professional roles. From navigating the complexities of providing remote mental health support to coping with increased workloads and heightened stress levels, medical social workers have been forced to adapt rapidly to the evolving demands of the pandemic. By understanding

the experiences of medical social workers in Egypt during this unprecedented time, we can gain valuable insights into the broader implications of the pandemic on healthcare systems and the well-being of frontline workers. These insights can inform future interventions and policies aimed at supporting medical social workers and ensuring the delivery of high-quality care to those in need, both during and beyond the COVID-19 pandemic.

Impact of Covid on Social Work Well-Being

The COVID-19 pandemic has significantly affected the wellbeing of frontline HCWs worldwide, including physicians, nurses, and social workers. Fear of infection, anxiety, stress, depression, and sleep disturbances have been identified as the most significant factors influencing their mental health (Riedel et al., 2022). According to a recent study, 41% of HCWs reported a low level of well-being, and 46% exhibited symptoms of anxiety and depression (Wozniak et al., 2021). This emotional distress is particularly pronounced among frontline HCWs, who are most likely to encounter individuals infected or affected by the virus (Ehrlich et al., 2021). Pandemics, such as COVID-19, often compromise human health due to their unpredictable nature and longterm mental and physical effects. Therefore, it is crucial to address the mental health needs of HCWs during pandemics to ensure that they can continue to provide essential care to those in need.

As frontline workers, HCWs have been particularly affected by the crisis. The pandemic has disrupted their professional practices, increased their workload, and exposed them to health risks. As a result, the well-being of social workers has become a growing concern in the mental health literature. Studies have documented the pandemic's impact on social workers worldwide, including in Norway, Australia, Hong Kong, China, and Palestine (Katz & Cohen, 2021; Mahamid & Bdier, 2021; Nam et al., 2022; Nissen-Lie et al., 2021; Snoubar & Zengin, 2022; Troisi et al., 2021; Yip et al., 2021; Zhai et al., 2021). Globally, social workers have faced a surge in caseloads, addressing the needs of vulnerable populations such as the elderly, children, and those with mental health issues (Banks et al., 2020). Health and safety concerns, particularly the lack of adequate personal protective equipment (PPE) and the risk of infection, have exacerbated stress levels among social workers, as highlighted in studies from Australia and New Zealand (Ashcroft et al., 2022). The To cope with these challenges, social workers have adopted strategies such as telehealth services, increased peer support, and self-care practices (Mishna et al., 2021).

For example, Norwegian social workers reported high levels of emotional exhaustion and decreased job satisfaction



during the pandemic (Nissen-Lie et al., 2021). Similarly, Australian social workers reported increased stress, burnout, and anxiety levels due to the pandemic (Nam et al., 2022). While Hong Kong social workers experienced high levels of stress and anxiety due to increased workload, isolation, and fear of contagion (Yip et al., 2021), Chinese social workers experienced stress and emotional exhaustion due to fear of contagion, role conflict, and inadequate support (Zhai et al., 2021). Fear of contracting COVID-19 is a significant concern among medical social workers, with females being more fearful than men (Snoubar & Zengin. 2022). The fear of infection and losing a job can negatively affect HCWs' psychological well-being and job performance (Mahamid & Bdier, 2021; Troisi et al., 2021). Similarly, fear of COVID-19 has significantly affected many Palestinian psychosocial service providers, many of whom are social workers, increasing their anxiety, depression, and stress and positively correlating with work performance (Mahamid & Bdier, 2021). Social workers have also faced challenges related to telehealth services, such as inadequate technology, lack of privacy, and difficulties with communication (Cheung, 2020). It is important to acknowledge the pandemic's impact on social workers' mental health and provide adequate support to cope with their challenges.

The pandemic has notably escalated stress levels among HCWs, with activities ranging from 7.5 to 100% being COVID-19-associated (Bohlken et al., 2020). This stress is shaped by diverse factors like age, gender, occupation, and proximity to COVID-19 patients. Additionally, work-related elements such as supervisor support and exposure to high-risk clinical settings, coupled with personal factors like family stressors, correlate with poorer mental health outcomes (Evanoff et al., 2020). Moreover, heightened family stress and domestic violence have emerged due to financial worries and social isolation (Béland et al., 2021), prompting social workers to play a pivotal role in addressing these pressing social needs during the pandemic (Redondo-Sama et al., 2020).

Social Work and Health Care System in Egypt

The challenges faced by medical social workers in Egypt during the COVID-19 pandemic mirror broader issues within the social work profession, as elucidated by Elsayed (2021), Abbas (2020), and Algahtani et al. (2022). Like their counterparts in neighboring countries like the United Arab Emirates (UAE), Pakistan, and Saudi Arabia, Egyptian medical social workers encounter multifaceted obstacles ranging from logistical to psychological barriers. These impediments significantly impede their capacity to deliver effective care and support to patients and their families. Common challenges include the constant threat of infection,

emotional exhaustion, and difficulties accessing reliable information and resources. Moreover, constraints in staffing, maintaining social distancing measures, and the absence of clear protocols exacerbate these challenges (Elsayed, 2021; Abbas, 2020; Algahtani et al., 2022).

The COVID-19 pandemic has profoundly affected the mental health and well-being of medical social workers in Egypt. Research indicates that HCWs, including medical social workers, experienced elevated levels of depression, anxiety, and stress during the pandemic (Arafa, 2021). This was further compounded by socioeconomic repercussions such as income reduction and a decline in operational capacity (Khattab & Abou-Madawi, 2020). Social workers have experienced increased service restrictions, workload, and stress levels during the pandemic (Schwartz Tayri, 2023). Generalized anxiety and stress related to fear of COVID-19 have also influenced social workers' intentions to leave their current jobs (Badahdah et al., 2022).

Social workers in Egypt, within the Middle East and North Africa (MENA) region, have a longstanding history of involvement in addressing pandemics even preceding the onset of COVID-19. They have been at the forefront in responding to public health crises such as the Middle East respiratory syndrome (MERS), Severe Acute Respiratory Syndrome (SARS), and the Ebola outbreak, experiences that have deeply impacted many social workers in Egypt (Cheung, 2020).

In Egypt, medical health workers and social workers, like their counterparts around the world, play a pivotal role in caring for patients affected by COVID-19. They are integral members of healthcare settings, delivering essential front-line services to individuals across the healthcare spectrum. Beyond their immediate COVID-19-related duties, their overarching goal remains to enhance and preserve the biopsycho-social-spiritual well-being and functioning of individuals, families, and small groups. They apply social work theory and methodologies to address and prevent psychosocial dysfunction, disability, or impairment, encompassing emotional and mental disorders (Shaheen et al., 2016).

Within healthcare environments, Egyptian social workers collaborate closely with physicians, nurses, and various medical professionals to address the physical and mental health aspects of patients and their families. Their role extends to ensuring that patients and their families comprehend and are equipped to maintain the benefits provided by the healthcare team. As any social worker, Egyptian social workers are integral healthcare team members (Shaheen et al., 2016). They assess the risk and protective factors that arise during hospitalizations and provide ongoing support to patients and their families throughout the recovery and rehabilitation processes (Shaheen et al., 2016). In Egypt, as in many other countries, social workers in healthcare



settings play a vital role in promoting holistic well-being and facilitating the recovery journey for individuals and families affected by COVID-19.

The toll on the mental health of HCWs, including social workers, during the pandemic is another pressing concern (Arafa, 2021). The psychological strain is compounded by the perceived social stigma attached to COVID-19, adding an extra layer of stress and isolation for frontline workers (Gaber, 2023). The situation is further complicated for Syrian refugee doctors practicing in Egypt, who face significant barriers to entering the workforce due to restrictive labor policies (Ghobrial, 2023). These individuals encounter unique challenges in navigating bureaucratic hurdles and accessing employment opportunities, thus limiting the availability of skilled professionals in the healthcare sector.

The challenges highlighted within the context of medical social work during the COVID-19 pandemic in Egypt resonate with broader issues within the social work profession in the country. Social work in Egypt operates within a multifaceted landscape influenced by historical, cultural, and socioeconomic factors. While social work in Egypt has historical roots in community-based care and informal support systems, its formalization as a profession is relatively recent, with educational programs and professional associations established in the mid-20th century. Despite its evolving nature, social work in Egypt faces numerous challenges, especially during crises such as the COVID-19 pandemic. Generalized anxiety and stress related to fear of COVID-19 have also influenced social workers' intentions to leave their current jobs (Badahdah et al., 2022).

The pandemic has exacerbated existing challenges within social services, including staff cutbacks and service closures, further straining social welfare systems (Schwartz Tayri, 2023). Social workers in healthcare settings have been particularly affected, with their well-being being essential for the quality of services they provide (Shaker, 2021). However, concerns about infecting family members and fears of contracting the virus themselves have contributed to heightened stress levels among social workers (Shaker, 2021).

Moreover, the emotional impact of the pandemic on social workers in Egypt has been profound, with feelings of fear, frustration, and sadness being commonly reported (Shaker, 2021). Despite efforts to prepare HCWs before redeployment through training and provision of PPE, more needs to be done to safeguard their physical and mental health (Shaker, 2021). Without adequate PPE, medical social workers stationed in quarantine centers encounter ethical dilemmas related to infection risk and the implementation of safety measures (Al-Rantisi, 2021). Balancing the imperative to provide care with the need to protect themselves and others presents complex ethical considerations that require careful navigation and decision-making.

Social workers' well-being and ability to deliver effective services are well-documented. Studies emphasize that social workers' mental and emotional health directly impacts their professional efficacy and the quality of care they provide (Travis et al., 2015). This underscores the need for organizational support and policies prioritizing social workers' wellbeing. Research from the International Federation of Social Workers (IFSW) advocates for systemic changes, including better access to mental health resources, improved working conditions, and recognition of their critical role during crises (IFSW, 2020). Exploring the well-being of social workers during COVID-19 is essential due to the heightened challenges and critical role these professionals play. The pandemic has significantly increased the demand for social services, exposing social workers to intensified stress. health risks, and emotional strain. Understanding their wellbeing highlights the hurdles they face and the need for adequate support to ensure their mental health and service continuity. Moreover, exploring the well-being of Egyptian social workers can provide valuable insights into the global discourse on the impact of COVID-19 on frontline workers, fostering a more resilient and effective social work sector worldwide. By examining these global perspectives and integrating them with the specific context of Egyptian social workers, this article aims to provide a comprehensive understanding of the challenges faced and the necessary support mechanisms to enhance their well-being during and beyond the COVID-19 pandemic.

The selection of social workers in Egypt as the focus of our study is substantiated by several unique factors inherent to the country's healthcare landscape. Egypt is the most populous nation in the Middle East and North Africa (MENA) region, with a staggering population of 113 million as of 2023 (World Population Review, 2023). This demographic characteristic and a fertility rate of 3.3 births per woman present distinctive economic and health challenges, including nearly 10% unemployment and approximately one-third of the population in poverty (World Population Review, 2023).

In addition, Egypt's healthcare sector is confronted with an array of health challenges, encompassing both infectious and non-communicable diseases, alongside the complexities of healthcare expenditure (Fasseeh et al., 2022). Notably, the Ministry of Health and Population (MoHP) in Egypt has responded to health crises, including the COVID-19 pandemic, with a symptom-based testing approach and active contact tracing, indicative of the unique healthcare environment in the nation.

A distinctive aspect of the Egyptian healthcare landscape, revealed in Mostafa and colleagues (2021) study, is that only HCWs in quarantine hospitals undergo COVID-19 testing. In contrast, their counterparts in non-quarantine



hospitals do not receive the same testing (Mostafa et al., 2021). This differentiation in testing protocols for HCWs underscores the importance of examining the well-being of social workers, who are an integral part of the healthcare workforce.

Moreover, it is essential to underscore the challenges and risks HCWs encounter in Egypt. Numerous HCWs have reported inadequate access to PPE and insufficient training in COVID-19 prevention measures, leading to heightened stress and burnout within the healthcare workforce, including social workers (Refeai et al., 2020). These challenges are exacerbated by the unique circumstances of Egyptian HCWs, including the risk of transmitting diseases to their families, facing social stigma, and working in cramped and poorly ventilated conditions (Abdel Wahed et al., 2020).

A range of studies have contributed to understanding the impact of COVID-19 on social work in Egypt. Wu et al. (2022) and Allen (2020) highlight the government's response to the pandemic, while Nasr and Eltaiba (2016) provide a broader perspective on social work in Egypt. Awad (2021) and Khalil and Megahed (2021) examine the pandemic's impact on labor migration and employment security, respectively. Badran (1971) and Khoury (2022) offer insights from other countries in the region. These studies underscore the need for ongoing research and support for social workers in Egypt during the pandemic.

Considering these distinctive factors within Egypt's healthcare system, our study on the well-being of social workers takes on added significance. It addresses the critical needs and challenges specific to this context, contributing to a comprehensive understanding of healthcare worker resilience and support in a densely populated and dynamically evolving healthcare environment.

Significance of the Study

To support the study, a report by the International Federation of Social Workers (Sarhan et al., 2022) is referenced, which highlights the challenges faced by social workers in Egypt during the pandemic, including a lack of resources and support, limited access to PPE, and increased workload. The study's findings will illuminate the pandemic's impact on these essential workers' mental well-being. It will provide valuable insights into their challenges and the support they may need to continue providing vital care to patients who require additional assistance or support. The references are kept up-to-date and relevant to the topic at hand.

Studies focusing specifically on the experiences of Egyptian social workers during the COVID-19 pandemic are limited. However, some studies have explored the impact of the pandemic on the mental health and well-being of HCWs, including social workers. For instance, a study conducted in

Egypt found that many HCWs experienced anxiety, stress, insomnia, and depression because of the pandemic (Aly et al., 2021). It is important to note that social workers may have similar experiences as they also provide services in healthcare settings. Therefore, addressing their mental health needs during and after the pandemic is crucial.

Moreover, it is essential to acknowledge the challenges and risks that HCWs face in Egypt. Many HCWs reported a lack of PPE and training on COVID-19 prevention measures, leading to stress and burnout among HCWs, including social workers (Refeai et al., 2020). HCWs in Egypt also face additional challenges, such as fear of transmitting diseases to their families, social stigma, crowded working conditions, and poor ventilation. These challenges were reported as the most common reasons for perceived risk (Abdel Wahed et al., 2020). Therefore, it is crucial to ensure that HCWs, including social workers, have adequate PPE, training, and support to perform their duties safely and effectively.

While previous research has provided insight into the various factors associated with mental health issues among HCWs in response to the COVID-19 pandemic, much remains to be explored and understood. In particular, the impact of the tangible factors Egyptian social workers face on their well-being remains an under-researched area. In addition, addressing social workers' well-being in Egypt is important because it is the most populated country in the region and the critical role social workers play in health care delivery. This is also because the healthcare system in Egypt faces the dual challenge of serving a large population and dealing with a health crisis as a pandemic. Identifying and addressing the specific challenges social workers face in Egypt during the pandemic and beyond is crucial.

Materials and Methods

Research Questions

The study aims to evaluate the following questions:

- 1. To what extent have Egyptian social workers experienced emotional responses to the COVID-19 pandemic?
- 2. What is the prevalence and frequency of adverse mental health outcomes among social workers working in government hospitals in Egypt during the COVID-19 epidemic?
- 3. How does the COVID-19 pandemic impact the overall well-being of social workers employed in government hospitals in Egypt?



Recruitment

The data was collected through a self-report web-based survey on QuestionPro, online from May 10 to June 18, 2020. Social workers in various health facilities in Egypt were notified of the study through email and WhatsApp, with two follow-ups by one of the research team members. The study was open to social workers who had worked for at least one year, and participation was voluntary and confidential. Only those who agreed to participate were granted access to the survey. A proposal to conduct the study was reviewed and approved by Fagous Central Hospital, Egypt. Participants were selected using purposive sampling to ensure a representative sample of medical social workers from various healthcare settings. Inclusion criteria required participants to be currently employed in government hospitals and have at least one year of work experience in social work. The sampling aimed to capture a diverse range of experiences and perspectives related to the impact of COVID-19 on social workers' well-being.

Participants

The study recruited 216 medical social workers from public and university-affiliated healthcare facilities in Cairo, Qalyubia, and Sharquia Governorates in Egypt, with 50.7% female participants and 49.3% male. The average age of participants was 35.39 (SD = 11.23), and they reported an average of 12.01 years of social work experience (SD = 8.77).

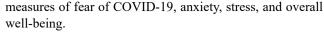
Measures

The survey collected sociodemographic data, including age, gender, marital status, and years of experience working as a social worker. The second part of the survey included four

Table 1 Characteristics of the study sample (N=216)

Characteristics	(N) %
Age ($M = 35.39$, $SD = 11.23$)	(66) 30.6
20–35 yrs.	(150) 69.4
35 & up yrs.	
Years of experience ($M = 12.01$, $SD = 8.77$)	
Gender	
Males	(107) 49.5
Females	(109) 50.5
Marital Status	
Married	(114) 53.3
Never Married	(77) 36
Divorced and Widowed	(23) 10.8
Helping COVID-19 Families	(69) 31.9
Yes	(147) 68.1
No	

Note N = 216



Generalized Anxiety Disorder Scale (GAD-7). This is a brief 7-item scale self-rated on 4-point response options: 0= "not at all," 1= "several days," 2= "more than half the days," and 3= "nearly every day." The total score ranges from 0 to 21, with a cutoff score of ≥ 10 indicating higher anxiety (Spitzer et al., 1983). Examples were "not being able to stop or control worrying" and "feeling nervous, anxious, or on edge." Cronbach's alpha reliability was 0.92.

Perceived Stress Scale (PSS-10). This is a self-reported measure of perceived stress and people's responses to stressful life events (Cohen et al., 1983). Sample items include, "In the last month, how often have you felt that things were going your way?" and "In the last month, how often have you felt confident about your ability to handle your problems?". Items were rated on a 5-point Likert scale ranging from 0 (never) to 4 (very often). Although PSS-10 has no cutoff points, scores of \geq 14 suggest moderate to high-stress levels. Higher scores indicate a higher level of stress. The Cronbach's alpha reliability was 0.78 (Humer et al., 2023).

The Sleep Quality Scale (SQS). This is a self-administered single-item measure of overall sleep quality (Snyder et al., 2018). The scale is divided into five categories: 0=terrible, 1-3=poor, 4-6=fair, 7-9=good, and 10=excellent. Respondents rate sleep quality on an 11-point scale where 0=terrible and 10=excellent. A higher score indicates excellent sleep quality.

World Health Organization Well-Being Index (WHO-5). This 5-item index measures respondents' subjective well-being over two weeks (Sischka et al., 2020). Example items: "Over the last two weeks, I have felt cheerful and in good spirits" and "Over the last two weeks, my daily life has been filled with things that interest me." The items are rated on a 6-point Likert-type scale that ranges from 0 (not at all) to 5 (all the time). The summed items yield an index with scores ranging from 0 to 25, with higher scores implying better well-being. The raw scores, however, are often transformed into an index with scores from 0 to 100 by multiplying the raw score by 4. A cutoff score of \leq 50 signifies a lower level of well-being whereas a score of \geq 51 represents the best imaginable well-being. Cronbach's alpha for internal consistency was 0.87.

Data Analytic Plan

We used the IBM SPSS Statistics Package 27 to perform descriptive statistics, reliability assessment, and univariable and multivariable logistic regression models. First, we used a univariable logistic crude regression to explore the role of age, gender, GAD-7, PSS-10, SQS, and contact with COVID-19 family members as predictors for the



Table 2 Descriptive statistic, internal consistency and correlation between WHO-5, GAD-7, PSS-10, and SQS

Variable	M	SD	Alpha	1	2	3
GAD-7	9.30	5.73	0.91	,		
PSS-10	19.55	6.15	0.78	0.61**		
SQS	6.24	2.10	-	-0.21**	-0.23**	
WHO-5	46.70	22.79	0.87	-0.68**	-0.56**	0.17*

^{*}p < .05. ** p < .01

Table 3 Odds ratio and 95% confidence interval of WHO-5 by GAD-7, PSS-10. SOS, and demographic variables

Variable	Univariable model OR [95% CI]	<i>p</i> -value	Multivariable model aOR [95% CI]	p-value
Age		0.000		0.05
≤35	3.52 [1.74, 7.13]		2.90 [0.99, 8.47]	
≥36 (REF)				
Gender		0.48		
Male (REF)	1.22 [0.71, 2.09]			
Female				
GAD-7		0.000		0.000
≤9	23.83 [11.35, 50.05]		12.58 [3.87, 40.96]	
\geq 10 (REF)				
PSS-10	0.79 [0.79, 0.85]	0.000	0.90 [0.81, 0.99]	0.04
SQS	1.13 [0.99, 1.29]	0.08		
Worked with COVID-19		0.000		0.16
Yes (REF)				
No	6.13 [2.98, 12.60]		0. 0.67,11.05]	

two categories of subjective well-being. Next, we incorporated the variables that showed significance in the univariable analysis into the multivariable logistic regression. This allowed us to analyze the interplay of various factors and their collective influence on subjective well-being. By applying a multivariable analysis, we were able to refine the way in which these variables interact and jointly affect well-being outcomes. We reported the odds ratio and 95% confidence intervals (CIs) and set the significant level for all tests at $\alpha = 0.05$.

The study was conducted in accordance with ethical standards for research involving human subjects. Informed consent was obtained from all participants before they participated in the survey. Participants were assured of their anonymity and confidentiality and had the right to withdraw from the study without any consequences. The ethics committee reviewed and approved the study protocol at Faqous Central Hospital, ensuring that all ethical guidelines and regulations were followed.

Results

The results show that slightly more than half of the participants (55.4%) were 36 years and older, and the rest (44.6%) were 35 years old and younger. We dichotomized age at the mean value for ease of interpretation. Most social workers reported being married (53.3%), while the rest (46.8%) were never married, divorced, or widowed. On average, participants worked as social workers for 11.79 years (SD=8.83). One-third (31.9%) reported helping families of COVID-19 patients. As shown in Table 1, half of the social workers (51.4%) scored 10 or higher on GAD-7, and 83.3% scored \geq 14 on PSS-10 (M=19.55, SD=6.15). More than half of social workers (58.3%) scored 50 or lower on WHO-5. The mean score on sleep quality was (M=6.24, SD=2.10). More than half (53.2%) of social workers reported good or excellent sleep.

In the univariable logistic regression models (Table 2), a higher level of well-being (WHO-5) was associated with participants 35 and younger (vs. 36 and older; OR = 3.52, 95% CI [1.74, 7.13] p < .05) and those who scored on GAD-7 \leq 9 (vs. \geq 10; OR = 23.83, 95% CI [11.35, 50.05], p < .05). Social workers who had not worked with family members of COVID-19 patients (vs. those who had; OR = 6.13, 95% CI [2.98, 12.60], p < .05) were more likely to have better overall well-being. Moreover, a higher level of perceived stress (PSS-10) was associated with decreased odds of overall well-being by 21% (OR = 0.79, 95% CI [0.79, 0.85], p < .05). Sleep quality (OR = 1.13, 95% CI [0.99, 1.29]) and female sex (vs. males; OR = 1.22, 95% CI [71, 2.09]) were not significantly associated with overall well-being.

In the multivariable logistic regression model (Table 2), social workers 35 and younger were 2.89 times more likely to report higher levels of well-being (AOR=2.89, 95% CI [0.99, 8.46], p < .05). Social workers who scored 9 or lower on GAD-7 were 12.58 times more likely to report higher well-being (AOR=12.58, 95% CI [3.86, 40.96], p < .05). Additionally, higher scores on PSS-10 were associated with a decrease in odds of overall well-being by 10% (AOR=0.90 95% CI [0.81, 0.99], p < .05). Finally, working with families who had members with COVID-19 was not associated with subjective well-being.



Discussion

The study's results offer an in-depth examination of how the COVID-19 pandemic has affected social workers' mental health and well-being in Egypt. Initially, the findings revealed that 50% of the participants experienced moderate to high anxiety and perceived stress levels. Additionally, most of the scores on sleep quality fell within the "fair" range, and slightly over half of the respondents reported lower levels of overall well-being.

Building upon these initial insights, the study's results demonstrated a strong correlation between anxiety, perceived stress, and well-being among social workers during the COVID-19 pandemic. More than half of the participants reported moderate to severe levels of anxiety and suboptimal subjective well-being. This finding underscores the considerable mental health challenges this profession has faced, which align with previous research results (Ahmed et al., 2020; Survavanshi et al., 2020; Tercan et al., 2020; Wang et al., 2020). It reaffirms that the pandemic has presented substantial hurdles to the mental health of social workers. Furthermore, a notable percentage of social workers reported moderate to high levels of perceived stress, a factor closely linked to a decline in their overall well-being. This reiterates the importance of prioritizing stress management interventions to safeguard and promote the well-being of these professionals.

Age emerged as a significant predictor of well-being, with younger individuals (under 35 years) reporting higher levels of well-being compared to their older counterparts. A possible explanation for this difference could be variations in life responsibilities. Younger social workers may have fewer financial burdens, family obligations, and health concerns than their older counterparts. Moreover, younger professional social workers may benefit from stronger social support networks and encounter fewer adverse life experiences, contributing to their heightened sense of well-being.

Regarding the relationship between GAD-7 scores (a measure of anxiety) and overall well-being, it is reasonable to expect that individuals with higher anxiety symptoms may struggle to manage their emotions, thereby adversely affecting their overall well-being. Anxiety can also interfere with daily activities, including work and social interactions, leading to heightened distress and a reduced sense of well-being.

Although this study did not establish a direct correlation between sleep quality and overall well-being, it is essential to acknowledge that other research has demonstrated the detrimental effects of poor sleep quality on mental health in various healthcare worker populations (Alfonsi et al., 2023; Korkmaz et al., 2020; Lu et al., 2021; Marvaldi et al., 2021). It's worth noting that this study assessed sleep quality with

a single item, which may not fully capture the complexity of sleep quality.

While this study did not find a direct link between the impact of COVID-19 and gender on overall well-being, it remains imperative to acknowledge the far-reaching effects of the pandemic on mental health. Several studies on the impact of the COVID-19 pandemic on the Egyptian population, particularly among female HCWs, have pointed to significant effects on mental health outcomes (Arafa et al., 2020, 2021; El-Zoghby et al., 2020; Ghazawy et al., 2021). While some studies (Aly et al., 2021; Suryavanshi et al., 2020) did not find substantial gender-based differences in the effects of COVID-19 on overall well-being, they highlighted the unique factors affecting the mental health of female HCWs due to their gender and profession. The pandemic's repercussions, such as social isolation, economic uncertainty, and heightened stress levels, have unveiled disparities in mental health based on gender. Societal factors, including cultural expectations, gender roles, and genderbased discrimination, may also contribute to gender-based differences in well-being (Hou et al., 2020; Maestre-Miquel et al., 2021; Prowse et al., 2021; Reppas-Rindlisbacher et al., 2022; Shangguan et al., 2022). To comprehensively grasp the mental health outcomes of COVID-19, it is essential to adopt an approach that considers the intricate interplay between gender, biology, and social factors.

The lack of significant gender differences observed in this study on Egyptian social workers could be attributed to cultural and societal factors such as strong supportive social networks and high social cohesion (Yount et al., 2014). These supportive networks and communities may have served as buffers against the impact of the COVID-19 pandemic and helped mitigate these negative effects for both genders. Various factors such as job responsibilities, workload, support from colleagues, personal and family situations, and religious or spiritual beliefs can all influence the impact of the pandemic on social workers' mental health, irrespective of their gender. For example, Ozcan et al. (2021) found that female HCWs in Egypt who integrate spirituality and religion into their lives experience less stress during chaotic and traumatic situations, enabling them to prioritize their own needs, the needs of those they serve, and their work responsibilities while enhancing their resilience. Furthermore, Algahtani et al. (2022) found that Saudi Arabian women were more likely than men to rely on spiritual connections to manage stress and anxiety during the COVID-19 pandemic. All these references collectively support the idea that spirituality and religion can significantly mitigate the pandemic's impact on social workers' mental health, regardless of gender; however, gender may play a part in how they are expressed.



Most findings of this study align with global research on the impact of COVID-19 on social workers, reinforcing several key themes documented in the literature. Social workers worldwide have reported increased workloads, emotional and psychological stress, and significant health and safety concerns, all of which were echoed in the experiences of Egyptian social workers during the pandemic. Consistent with studies from Italy and Spain, which reported high levels of anxiety, depression, and secondary traumatic stress among social workers (Fiorillo & Gorwood, 2020; Rossi et al., 2020). Egyptian social workers also faced significant emotional strain. This emotional burden is likely due to their frontline roles, dealing with the heightened needs of vulnerable populations during the pandemic. These findings highlight the universal nature of the psychological impacts of COVID-19 on social workers, regardless of geographical context.

The increase in caseloads of social workers mirrors the experiences of their counterparts in the United States, the United Kingdom, and other parts of the world (Banks et al., 2020). The increased demand for social services during the pandemic has significantly burdened social workers, exacerbating stress and burnout. This increased workload underscores the critical need for adequate staffing and resource allocation to support social workers effectively. The health and safety concerns reported by Egyptian social workers, including inadequate personal protective equipment (PPE) and the risk of infection, are consistent with findings from Australia and New Zealand (Fronek et al., 2023.). These concerns have exacerbated stress levels and highlighted the need for better protective measures and support systems to safeguard social workers' health. Adopting telehealth services, increased peer support, and self-care practices as coping mechanisms were prominent in the literature (Mishna et al., 2021) and were similarly reported by Egyptian social workers. These strategies have been crucial in helping social workers manage the challenges posed by the pandemic, underscoring the importance of flexibility and innovation in service delivery.

Shared Trauma, Resiliency, and Post-Traumatic Growth among Social Workers in Egypt During COVID-19

The COVID-19 pandemic has had a profound impact on the mental health and well-being of HCWs, including social workers, in Egypt. As frontline workers, social workers have been exposed to unprecedented challenges and stressors, leading to a heightened focus on understanding their experiences of shared trauma, resilience, and post-traumatic growth during this crisis.

Delving deeper into the research findings reveals a noticeable trend: Social workers who did not work with family members of COVID-19 patients tended to report better overall well-being. This observation aligns with existing literature, highlighting the complex and demanding nature of working with families and children (Amadasun, 2020; Redondo-Sama et al., 2020). Such roles require navigating intricate family dynamics, relationships, and child protection concerns, which can elevate stress levels and contribute to compassion fatigue (Abrams & Detlaff, 2020; Cook & Zschlomer, 2020). The multifaceted nature of cases involving families and children can exacerbate the emotional toll, further inducing compassion fatigue, given the increased responsibilities and workloads, mainly when dealing with trauma (Tosone et al., 2015; Nuttman-Shwartz, 2015).

The concept of shared trauma within social work and family services is indeed complex, encompassing both personal and professional impacts of collective traumatic events (Blome & Safadi, 2016). Vicarious trauma, experienced in turbulent environments, can hinder social workers' abilities to effectively serve their clients (Bent-Goodley, 2018; Tosone et al., 2012). Living within a social context of collective trauma can also hinder social work clinicians' cognitive schemas (Ajduković, 2013; Cunningham, 2003).

Furthermore, social workers who assist families impacted by traumatic events may themselves experience shared trauma due to their close involvement in these challenging situations. Vicarious trauma, shared in turbulent environments, can influence social workers' abilities to serve their clients effectively (Blome & Safadi, 2016). The concept of shared trauma within social work and family services is intricate and multifaceted. It encompasses the personal and professional impact of collective traumatic events, such as natural disasters, and acknowledges positive effects like shared resilience amidst traumatic realities (Tosone et al., 2015; Nuttman-Shwartz, 2015). The significance of trauma-informed practice, particularly within the #MeToo movement context, underscores transformative changes that clinicians may undergo when exposed to trauma (Bent-Goodley, 2018; Tosone et al., 2012). The hindering effects of living within a social context of collective trauma are also recognized (Aiduković, 2013), as is the impact of trauma work on social work clinicians' cognitive schemas (Cunningham, 2003).

Moreover, the pandemic intensified burnout among healthcare professionals, necessitating enhanced occupational safety measures (Abou Omar, 2013). A comparative study revealed that HCWs exhibited higher rates of anxiety, depression, and obsessive-compulsive disorder compared to the general population (Ahmed et al., 2021). Frontline workers, including medical social workers, were particularly susceptible, reporting elevated levels of depression and severe



depressive symptoms (Elghazally, 2021). Heightened stress and anxiety among HCWs have been widely documented, emphasizing the critical role of social support in alleviating psychological distress (Abbas, 2020).

Research conducted in various settings sheds light on the resilience and post-traumatic growth exhibited by social workers amidst the pandemic. Joubert (2022) found that hospital social workers in Australia demonstrated high levels of resilience, regardless of the degree of infection in the community. Similarly, Seng (2021) discovered that front-line social workers in Singapore, while resilient, also experienced psychological distress, emphasizing the nuanced nature of their experiences. Aafjes-van Doorn (2020) further highlighted the resilient trajectory of therapists, indicating that professional self-doubt decreased over time.

The relationship between resilience and post-traumatic growth among social workers during the COVID-19 pandemic is complex, as evidenced by various studies. De la Rosa Gómez et al. (2023) found a negative association between resilience and post-traumatic stress disorder in HCWs, underscoring the intricate interplay between these constructs. Conversely, Lyu (2021) and Finstad (2021) emphasized the positive relationship between resilience and post-traumatic growth, with Finstad particularly highlighting the role of adaptive coping strategies. Kalaitzaki (2021) further elaborated on the differential role of resilience and coping strategies in secondary traumatic stress and post-traumatic growth among HCWs.

In addition to understanding the factors influencing post-traumatic growth, research has identified key predictors and mediators of this phenomenon among HCWs. Barnicot (2023) highlighted the significance of positive self-reflection activities, support from senior management, and anxiety about personal and work-related consequences of the pandemic in predicting greater post-traumatic growth. Han (2022) identified marriage, religion, self-disclosure, deliberate rumination, and resilience as significant predictors, while Feingold (2022) associated non-White race/ethnicity, positive emotions, pandemic-related PTSD symptoms, dispositional gratitude, and feelings of inspiration with post-traumatic growth.

Furthermore, studies have examined the impact of COVID-19 on the mental health and well-being of health-care providers, including social workers, in Egypt. Abdeen (2023) found high rates of depression and PTSD among physicians, underscoring the need for comprehensive support and interventions. Kira (2022) identified coping strategies such as wills to exist, live, and survive (WTELS) as predictors of post-traumatic growth among HCWs, highlighting the adaptive responses employed by individuals in the face of adversity.

While significant progress has been made in understanding the experiences of social workers during the COVID-19 pandemic, there remains a need for further research, particularly in the context of Egypt. By examining the shared trauma, resilience, and post-traumatic growth among social workers, we can gain valuable insights into the challenges they face and develop targeted interventions to support their well-being and enhance their capacity to provide adequate care.

Policy and Practice Implications

Social workers, who play crucial roles in assisting people facing complex and challenging life circumstances, are particularly susceptible to the adverse effects of the pandemic on their mental health and overall well-being. Gender, work responsibilities, workload, colleague support, personal situations, and cultural considerations influence the pandemic's impact on social workers' mental health (Prasad et al., 2020; Schwartz Tayri, 2023). To promote their well-being amidst the ongoing challenges, it is imperative to conduct further research to gain a deeper understanding of how the pandemic affects their mental health and to develop effective interventions.

The findings of this study carry substantial implications for policymakers and employers, particularly in the context of future pandemics and the well-being of social workers. Prioritizing social workers' mental health and well-being is paramount for all stakeholders. Achieving this requires providing them with the necessary psychological support and implementing stress management prevention and intervention programs. Emphasizing the importance of social workers' well-being, especially during pandemics, is essential for enabling them to effectively cope with stress, anxiety, and other mental health challenges. Recognizing this fact can help social workers better manage their mental health challenges and provide high-quality care to those in need.

When working with families and children, particularly during a pandemic, it is imperative to understand the inherent challenges and complexities involved. Other studies have supported these findings (McFadden et al., 2022; Wu et al., 2022), revealing that social workers in such roles may face emotional demands, heavy workloads, and exposure to traumatic experiences, leading to heightened stress and compassion fatigue. These insights shed light on the high stress levels experienced by HCWs, especially those working with families during the COVID-19 pandemic, underscoring the concept of shared trauma among social workers and family services. Consequently, there is a pressing need for mental health-informed interventions to support HCWs and their families during this challenging period (Bohlken et al., 2020). In addition, organizations and agencies must



acknowledge these unique challenges and provide adequate support systems, including supervision, regular debriefing sessions, access to mental health resources, and self-care opportunities. Neglecting these measures can compromise the well-being of social workers and, consequently, the quality of services provided to families, children, and patients (Antonopoulou et al., 2017). Therefore, it is crucial to prioritize the support and well-being of social workers, particularly during crises like the COVID-19 pandemic to ensure high-quality care services and better outcomes for everyone involved, especially during times of crisis like the COVID-19 pandemic.

Recognizing social workers as dedicated professionals facing unique challenges in their roles, it is essential to emphasize the need for ongoing mental health support and effective stress management strategies (Cabiati, 2021; Travis et al., 2015; Peinado & Anderson, 2020). These professionals often find themselves in demanding situations that require empathy, expertise, resilience, and self-care practices. Access to mental health services and advanced training programs can be invaluable for social workers, aiding their personal and professional growth while equipping them to effectively manage the stress associated with their work. In Egypt, the General Syndicate of Social Professions (Abou Omar, 2013), akin to the USA's National Association of Social Workers (NASW), should proactively provide social workers with comprehensive resources and tailored professional development opportunities that align with their specific needs (Morrow, 2022). Policymakers and employers must respond promptly by implementing robust policies and practices designed to prioritize mental health and wellbeing, both in preventive measures and intervention services for social workers. This commitment should extend beyond the current pandemic and remain in place for the foreseeable future.

Failure to take such actions would not only be a disservice to the dedicated social workers who tirelessly serve our communities but would also have severe consequences for their mental health and overall well-being. Supporting social workers in managing stress and preventing burnout is a matter of ethical responsibility and an investment in the welfare of the individuals and communities they serve (Wu et al., 2020, 2022). By implementing and sustaining effective strategies, stakeholders can ensure that social workers maintain their mental health and well-being even in the face of future pandemics. This, in turn, will enhance their capacity to consistently deliver high-quality care and support to those in need, leading to far-reaching positive effects that benefit society as a whole.

Limitations

While this study has undoubtedly added valuable insights to the existing social work literature, it is important to acknowledge and address the limitations to comprehend its scope and implications.

First, the study's sample size was very restricted and included only social workers working in specific hospitals. Therefore, the study's findings may not be generalizable to other social workers working in different healthcare settings or those practicing in diverse regions of Egypt. It is possible that social workers in different settings may have unique experiences and face different challenges that were not fully captured in this study. Variations in the healthcare infrastructure, patient populations, and organizational cultures across different healthcare settings may lead to different mental health outcomes among social workers. As such, it is important to be cautious when applying the findings of this study to the broader social work community in Egypt or other countries in the region.

Another major limitation of the study is its reliance on self-reported measures. Self-reporting can introduce various biases and inaccuracies into the data. For example, participants may underreport or overreport certain mental health issues or coping strategies to align with societal expectations or perceived professional norms, known as social desirability bias. Moreover, self-presentation bias can influence participants to present themselves in a manner they believe is socially desirable. These biases could affect the accuracy and reliability of the reported anxiety levels, perceived stress, sleep quality, and overall well-being.

It is essential to note that the study might have been more comprehensive in examining other factors that impact social workers' mental health and well-being. Factors like maintaining a work-life balance, having access to social support, using coping mechanisms, and personal resilience are critical to a social worker's experience, especially during a global health crisis like COVID-19. However, the study didn't explore these factors in-depth, which limits its ability to provide a holistic understanding of how such variables interact with one another and with social workers' mental health outcomes.

For instance, the study might have revealed if social workers with a better work-home balance reported better mental health outcomes or if those with more robust social support networks exhibited higher levels of well-being. Additionally, understanding the coping strategies employed by social workers in response to the unique stressors of their profession during the pandemic could have offered valuable insights into their mental resilience. A more comprehensive examination of personal resilience could have shed light on why some social workers were better equipped to withstand



the challenges posed by the pandemic while maintaining their mental well-being.

Conclusions

This study aimed to explore the well-being of Egyptian social workers amid the COVID-19 pandemic, focusing on their emotional responses, the prevalence of adverse mental health outcomes, and the overall impact on their well-being. Given social workers' critical role in supporting vulnerable populations during crises, understanding their well-being is essential for ensuring the continuity and quality of social services.

The findings reveal that Egyptian social workers have experienced significant emotional and psychological stress during the pandemic, with heightened levels of anxiety, depression, and secondary traumatic stress. The increased workload, service demand, and health and safety concerns have exacerbated these challenges. Despite these difficulties, social workers have adopted coping mechanisms like telehealth services, peer support, and self-care practices.

These insights underscore the necessity of providing adequate support and resources to social workers to maintain their mental health and service efficacy. Organizational support, including better access to mental health resources, improved working conditions, and recognition of their critical role, is vital for fostering a resilient social work sector.

By integrating global perspectives with the specific context of Egyptian social workers, this article contributes valuable knowledge to the broader discourse on the impact of COVID-19 on frontline workers. The findings highlight the need for systemic changes and policy development to support social workers effectively during and beyond the pandemic, ultimately enhancing their well-being and professional efficacy.

The study sheds light on the significant impact of the COVID-19 pandemic on the mental health and well-being of social workers in Egypt. The findings are alarming, with half of the participants reporting moderate to high levels of anxiety and perceived stress and most experiencing suboptimal levels of subjective well-being. The research highlights the strong correlation between anxiety, stress, and overall well-being among social workers during the pandemic, which aligns with previous studies. Age was a significant predictor of well-being, with younger individuals having better outcomes, possibly due to fewer life responsibilities and more social support.

The study found that social workers who didn't work with the family members of COVID-19 patients had better well-being, suggesting that emotionally complicated cases impact mental health. Although there was no direct

correlation between sleep quality and overall well-being, the study acknowledges that sleep quality is a complex issue that a single metric cannot fully measure.

The results also indicate that gender alone may not be the sole cause of disparities in mental health outcomes during the pandemic, highlighting the importance of biological and social factors and the need for a comprehensive approach. It is possible that the specific circumstances in Egypt, such as the presence of strong social support networks and high social cohesion, may have reduced the gender-based differences in the pandemic's effect on social workers' mental health. While we did not investigate religious and spiritual beliefs, previous research suggests that both men and women find comfort and relief from stress and anxiety through spiritual and religious practices.

Given the findings, policymakers and employers must place a high priority on the mental health and well-being of social workers, particularly during pandemics or crises. This involves offering psychological support, stress management, and preventive measures. Acknowledging the significance of social workers' well-being enhances their ability to handle stress and elevates their service quality.

Social workers working with families during the COVID-19 pandemic face a myriad of stressors that impact their well-being and effectiveness in their roles. The challenges are numerous and significant, from navigating complex family dynamics to managing high caseloads (Banks et al., 2020) and limited resources (Sarhan et al., 2022). It is essential for organizations and policymakers to recognize and address these stressors to support the well-being of social workers and ensure that families receive the assistance they need during these challenging times.

Providing support systems such as supervision, debriefing sessions, mental health resources, and self-care opportunities is essential to ensure the well-being of social workers and the quality of care for families, children, and patients. Neglecting these aspects can compromise social workers' health and the quality of care they provide. Social workers need to have access to mental health services and advanced training programs to manage work-related stress better and develop professionally. Professional associations, such as the General Syndicate of Social Professions in Egypt, should take responsibility for providing valuable resources and development opportunities that meet the unique needs of social workers.

This study underlines the urgency of implementing robust policies and practices prioritizing mental health and well-being support for social workers. Failure to do so harms the individuals and communities they assist and has far-reaching negative consequences. By proactively addressing the mental health needs of social workers, stakeholders can ensure their resilience and capacity to deliver high-quality



care during future pandemics, thereby fostering positive outcomes for all involved.

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Data Availability Unfortunately, we were not granted permission to share the data at the time of its collection. The data supporting this study's findings are available upon reasonable request.

Declarations

Ethical Approval A proposal to conduct the study was reviewed and approved by Faqous Central Hospital, Egypt.

Informed Consent Respondents were asked to read the informed consent and decide whether to participate. The confidentiality of information was assured, and participants were informed that participation was entirely voluntary. Only participants who consented were allowed to access the survey.

Conflict of Interest The authors declare no conflict of interest.

Supplementary Materials The following supporting information can be downloaded at: www.mdpi.com/xxx/s1, Figure S1: title; Table S1: title; Video S1: title.

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References

- Aafjes-van Doorn, K., Békés, V., & Prout, T. A. (2020). Grappling with our therapeutic relationship and professional self-doubt during COVID-19: Will we use video therapy again? *Counselling Psychology Quarterly*, 34(3–4), 473–484. https://doi.org/10.1080/09515070.2020.1773404
- Abbas, J. (2020). The impact of coronavirus (SARS-cov2) epidemic on individuals mental health: The protective measures of Pakistan in managing and sustaining transmissible disease. *Psychiatria Danubina*, 32(3–4), 472–477. https://doi.org/10.24869/psyd.2020.472

- Abdeen, S. M., Mohammed, M. Z., Hawary, E., Yosef, Y., Nagar, M. E., Z. M., & Hashim, M. A. (2023). Traumatic stress in Egyptian doctors during COVID-19 pandemic. *Psychology Health & Medicine*, 28(1), 171–178. https://doi.org/10.1080/13548506.20 22.2059096
- Abdel Wahed, W. Y., Hefzy, E. M., Ahmed, M. I., & Hamed, N. S. (2020). Assessment of knowledge, attitudes, and perception of health care workers regarding Covid-19, a cross-sectional study from Egypt. *Journal of Community Health*, 45(6), 1242–1251. https://doi.org/10.1007/s10900-020-00882-0
- Abou Omar, E. M. M. (2013). Empowering professional syndicates in Egypt to achieve good governance; An application to the Egyptian Medical Syndicate.
- Abrams, L. S., & Dettlaff, A. J. (2020). Voices from the frontlines: Social workers confront the COVID-19 pandemic. *Social Work*, 65(3), 302–305. https://doi.org/10.1093/sw/swaa030
- Ahmed, M. Z., Ahmed, O., Aibao, Z., Hanbin, S., Siyu, L., & Ahmad, A. (2020). The epidemic of Covid-19 in China and associated psychological problems. *Asian Journal of Psychiatry*, 51, 102092. https://doi.org/10.1016/j.ajp.2020.102092
- Ahmed, G. K., Ramadan, H. K. A., Refay, S. M., & Khashbah, M. A. (2021). Comparison of knowledge, attitude, socioeconomic burden, and mental health disorders of COVID-19 pandemic between general population and health care workers in Egypt. The Egyptian Journal of Neurology Psychiatry and Neurosurgery, 57(1). https://doi.org/10.1186/s41983-021-00280-w
- Ajdukovic, D., Ajdukovic, D., Bogic, M., Franciskovic, T., Galeazzi, G. M., Kucukalic, A., Lecic-Tosevski, D., Schützwohl, M., & Priebe, S. (2013). Recovery from posttraumatic stress symptoms: A qualitative study of attributions in survivors of war. *Plos One*, 8(8). https://doi.org/10.1371/journal.pone.0070579
- Al-Rantisi, A. M. (2021). Ethical challenges for Palestinian social workers during Corona pandemic. *Islamic University for Humanitarian Research Journal*, 29(4). https://doi.org/10.33976/iugjhr.29.4/2021/27
- Alfonsi, V., Scarpelli, S., Gorgoni, M., Couyoumdjian, A., Rosiello, F., Sandroni, C., Corsi, R., Pietrantonio, F., & De Gennaro, L. (2023). Healthcare workers after two years of Covid-19: The consequences of the pandemic on psychological health and sleep among nurses and physicians. *International Journal of Environmental Research and Public Health*, 20(2), 1410. https://doi.org/10.3390/ijerph20021410
- Algahtani, F. D., Alsaif, B., Ahmed, A. A., Almishaal, A. A., Obeidat, S. T., Mohamed, R. F., Kamel, R. M., Gul, I., & Hassan, S. (2022). Using spiritual connections to cope with stress and anxiety during the COVID-19 pandemic. *Frontiers in Psychology*, 13. https://doi.org/10.3389/fpsyg.2022.915290
- Allen, M., Gonzalez, D., & Sauer, L. (2020). Special issue on social work in the time of COVID-19. *Journal of Comparative Social Work*, 15(1), 1. https://doi.org/10.31265/JCSW.V1511.348
- Aly, H. M., Nemr, N. A., Kishk, R. M., & Elsaid, N. M. (2021). Stress, anxiety, and depression among healthcare workers facing Covid-19 pandemic in Egypt: A cross-sectional online-based study. British Medical Journal Open, 11(4). https://doi.org/10.1136/bmjopen-2020-045281
- Amadasun, S. (2020). Social work and COVID-19 pandemic: An action call. *International Social Work*, 63(6), 753–756. https://doi.org/10.1177/0020872820959357
- Antonopoulou, P., Killian, M., & Forrester, D. (2017). Levels of stress and anxiety in child and family social work: Workers' perceptions of organizational structure, professional support and workplace opportunities in children's services in the UK. Children and Youth Services Review, 76, 42–50. https://doi.org/10.1016/j. childyouth.2017.02.028
- Arafa, A., Mohamed, A., Saleh, L., & Senosy, S. (2020). Psychological impacts of the Covid-19 pandemic on the public in Egypt.



- Community Mental Health Journal, 57(1), 64–69. https://doi.org/10.1007/s10597-020-00701-9
- Arafa, A., Mohammed, Z., Mahmoud, O., Elshazley, M., & Ewis, A. (2021). Depressed, anxious, and stressed: What have healthcare workers on the frontlines in Egypt and Saudi Arabia experienced during the Covid-19 pandemic? *Journal of Affective Disorders*, 278, 365–371. https://doi.org/10.1016/j.jad.2020.09.080
- Ashcroft, R., Sur, D., Greenblatt, A., & Donahue, P. (2022). The impact of the COVID-19 pandemic on social workers at the frontline: A survey of Canadian social workers. *The British Journal of Social Work*, 52(3), 1724–1746.
- Awad, I. (2021). On occasion of the pandemic: Reflections on Egyptian labour migration. *International Migration*, *59*(1), 281–284. https://doi.org/10.1111/imig.12818
- Badahdah, A., Shahin, M. M., & Abu-Ras, W. (2022). The invisible frontiers: Mental health and turnover intention among Egyptian social workers. *International Social Work*, 66(6), 1701–1714. https://doi.org/10.1177/00208728221108006
- Badran, H. (1971). Social work programs in Egypt. Retrieved from https://doi.org/10.1177/002087287101400104
- Banks, S., Cai, T., de Jonge, E., Shears, J., Shum, M., Sobočan, A. M., Strom, K., Truell, R., Úriz, M. J., & Weinberg, M. (2020). Practising ethically during COVID-19: Social work challenges and responses. *International Social Work*, 63(5), 569–583. https://doi.org/10.1177/0020872820949614
- Barnicot, K., McCabe, R., Bogosian, A., Papadopoulos, R., Crawford, M., Aitken, P., & Rohricht, F. (2023). Predictors of post-traumatic growth in a sample of United Kingdom mental and community healthcare workers during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 20(4). https://doi.org/10.3390/ijerph20043539
- Béland, L. P., Brodeur, A., Haddad, J., & Mikola, D. (2021). Determinants of family stress and domestic violence: Lessons from the Covid-19 outbreak. *Canadian Public Policy*, 47(3), 439–459. https://doi.org/10.3138/cpp.2020-119
- Bent-Goodley, T. B. (2018). The necessity of trauma-informed practice in contemporary social work. *Social Work*, 63(1), 5–8. https://doi.org/10.1093/sw/swy056
- Blome, W. W., & Safadi, N. S. (2016). Shared vicarious trauma and the effects on Palestinian social workers. *Illness Crisis & Loss*, 24(4), 236–260. https://doi.org/10.1177/1054137315597176
- Bohlken, J., Schömig, F., Lemke, M. R., Pumberger, M., & Riedel-Heller, S. G. (2020). COVID-19 pandemic: Stress experience of Healthcare Workers a short current review. *Psychiatrische Praxis*, 47(04), 190–197. https://doi.org/10.1055/a-1159-5551
- Cabiati, E. (2021). Social workers helping each other during the COVID-19 pandemic: Online mutual support groups. *International Social Work*, 64(5), 676–688. https://doi.org/10.1177/00208728209754
- Centers for Disease Control and Prevention (CDC) (2018). Well-being concepts. https://www.cdc.gov/hrqol/wellbeing.htm
- Cheung, J. C. (2020). What have hospital social workers been prepared for COVID-19 from SARS, MERS, and H1N1. *Health & Social Work*, 45(3), 211–214.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24(4), 385. https://doi.org/10.2307/2136404
- Cook, L. L., & Zschomler, D. (2020). Virtual home visits during the COVID-19 pandemic: Social workers' perspectives. *Practice*, 32(5), 401–408. https://doi.org/10.1080/09503153.2020.1836142
- Cunningham, M. (2003). Impact of trauma work on social work clinicians: Empirical findings. Social Work, 48(4), 451–459. https://doi.org/10.1093/sw/48.4.451
- de la Rosa Gómez, A., Dominguez-Rodriguez, A., Rodríguez Huitrón, A. M., Flores-Plata, L. A., Torres-Torija, S., Martínez Arriaga, C., Herdoiza-Arroyo, R. J., Robles, P. E., García, R., Estrada Gómez, A., & Valerio, B., E (2023). Resilience and post-traumatic stress

- disorder among healthcare workers during the COVID-19 outbreak. *Electronic Journal of General Medicine*, 20(5). https://doi.org/10.29333/ejgm/13265
- Diener, E. D., & Suh, M. E. (1997). Subjective well-being and age: An international analysis. *Annual Review of Gerontology and Geriatrics*, 17, 304–324. https://doi.org/10.1891/0198-8794.17.1.304
- Diener, E., Lucas, R. E., & Oishi, S. (2018). Advances and open questions in the science of subjective well-being. *Collabra Psychology*, 4(15). https://doi.org/10.1525/collabra.115
- DiMaria, C. H., Peroni, C., & Sarracino, F. (2020). Happiness matters: Productivity gains from subjective well-being. *Journal of Happiness Studies*, 21, 139–160. https://doi.org/10.1007/s10902-019-00074-1
- Ehrlich, H., McKenney, M., & Elkbuli, A. (2021). Defending the front lines during the COVID-19 pandemic: Protecting our first responders and emergency medical service personnel. *The American Journal of Emergency Medicine*, 40, 213–214. https://doi. org/10.1016/j.ajem.2020.05.068
- El Nagar, M. Z., Meguid Hammed, M. A., Mahmoud Massoud, Y., Hassan, H. A., Youssef Mohamed, M., & Mohamad Aufa, O. (2022). Impact of psychological stress during COVID 19 pandemic on quality of life of health care workers in Mental Health Hospital in Egypt. *Journal of Psychiatry and Psychiatric Disor*ders, 06(03). https://doi.org/10.26502/jppd.2572-519x0161
- El-slamoni, M., Shahin, M., & Ahmed, M. (2022). Impact of covid –19 on the psychosocial status of Saudi and Egyptian population: Comparative study. *Tanta Scientific Nursing Journal*, 25(2), 264–294. https://doi.org/10.21608/tsnj.2022.236077
- El-Zoghby, S. M., Soltan, E. M., & Salama, H. M. (2020). Impact of the COVID-19 pandemic on mental health and social support among adult egyptians. *Journal of Community Health*, 45(4), 689–695. https://doi.org/10.1007/s10900-020-00853-5
- Elghazally, N., & Abdeldaim, D. (2021). Depression among medical staff during the Coronavirus Disease-19 pandemic in Egypt: A comparative web-based cross-sectional study. Open Access Macedonian Journal of Medical Sciences, 3. https://doi.org/10.3889/ oamjms.2021.7791
- Elsayed, W. (2021). Social work practices in the multiethnic urban reality of Covid-19 in the Middle East: The case of UAE. *Journal of Ethnic and Cultural Studies*, 8(4), 307–320. https://doi.org/10.29333/ejecs/900
- Evanoff, B. A., Strickland, J. R., Dale, A. M., Hayibor, L., Page, E., Duncan, J. G., & Gray, D. L. (2020). Work-related and personal factors associated with mental well-being during the COVID-19 response: Survey of health care and other workers. *Journal of Medical Internet Research*, 22(8), e21366.
- Fasseeh, A., ElEzbawy, B., Adly, W., et al. (2022). Healthcare financing in Egypt: A systematic literature review. *Journal of the Egyptian Public Health Association*, 97(1). https://doi.org/10.1186/s42506-021-00089-8
- Feingold, J. H., Hurtado, A., Feder, A., Peccoralo, L., Southwick, S. M., Ripp, J., & Pietrzak, R. H. (2022). Posttraumatic growth among health care workers on the frontlines of the COVID-19 pandemic. *Journal of Affective Disorders*, 296, 35–40. https://doi.org/10.1016/j.jad.2021.09.032
- Finstad, G. L., Giorgi, G., Lulli, L. G., Pandolfi, C., Foti, G., León-Perez, J. M., Cantero-Sánchez, F. J., Mucci, N., & Resilience (2021). Coping strategies and posttraumatic growth in the Workplace following COVID-19: A narrative review on the positive aspects of Trauma. *International Journal of Environmental Research and Public Health*, 18(18), 9453. https://doi.org/10.3390/ijer-ph18189453PMID: 34574378; PMCID: PMC8468098.
- Fiorillo, A., & Gorwood, P. (2020). The consequences of the COVID-19 pandemic on mental health and implications for clinical practice. *European Psychiatry*, 63(1), e32.



- Fronek, P., Briggs, L., Rondon-Jackson, R., Hay, K., Maidment, J., & Medina-Martinez, K. (2023). Responding to COVID-19 in social work field education in Australia, New Zealand and the United States. *International Social Work*, 66(1), 130–143.
- Gaber, D. M., Ahmed, M. M., Sayed, A. M., Elkholy, Y. S., & Sarhan, M. D. (2023). Perception of Covid-19-related stigma and associated psychological challenges among healthcare workers at Cairo University Hospitals. *Journal of International Medical Research*, 51(1), 030006052211488. https://doi.org/10.1177/03000605221148833
- Ghazawy, E. R., Ewis, A. A., Mahfouz, E. M., Khalil, D. M., Arafa, A., Mohammed, Z., & Mohammed, A. E. N. S (2021). Psychological impacts of COVID-19 pandemic on the university students in Egypt. *Health Promotion International*, 36(4), 1116–1125. https://doi.org/10.1093/heapro/daaa147
- Ghobrial, A., Sabouni, A., Rayes, D., Janoudi, S., Bdaiwi, Y., Howard, N., & Abbara, A. (2023). Policy versus practice: Syrian refugee doctors in Egypt. *Medicine Conflict and Survival*, 39(3), 222–228. https://doi.org/10.1080/13623699.2023.2229215
- Graham, J. R., & Shier, M. L. (2014). Profession and workplace expectations of social workers: Implications for social worker subjective well-being. *Journal of Social Work Practice*, 28(1), 95–110. https://doi.org/10.1080/02650533.2013.810613
- Han, S. J., Chun, J. Y., & Bae, H. J. (2022). Post-traumatic growth of nurses in COVID-19 designated hospitals in Korea. *International Journal of Environmental Research and Public Health*, 20(1), 56. https://doi.org/10.3390/ijerph20010056
- Hou, F., Bi, F., Jiao, R., Luo, D., & Song, K. (2020). Gender differences of depression and anxiety among social media users during the COVID-19 outbreak in China: A cross-sectional study. *Bmc Public Health*, 20(1). https://doi.org/10.1186/s12889-020-09738-7
- Humer, E., Pammer, B., Schaffler, Y., Kothgassner, O. D., Felnhofer, A., Jesser, A., Pieh, C., & Probst, T. (2023). Comparison of mental health indicators in clinical psychologists with the general population during the COVID-19 pandemic. *Scientific Reports*, 13(1), 5050. https://doi.org/10.1038/s41598-023-32316-x
- International Federation of Social Workers (IFSW) (2020). Social Work during COVID-19: IFSW global survey on the impact of the pandemic on social work and social services.
- Joubert, L., Hampson, R., Acuto, R., Powell, L., Latiff, M. N. L. A., Tran, L., & Simpson, G. (2022). Resilience and adaptability of social workers in health care settings during COVID-19 in Australia. Social Work in Health Care, 61(4), 199–217. https://doi.org/10.1080/00981389.2022.2096170
- Kalaitzaki, A. (2021). Posttraumatic symptoms, posttraumatic growth, and internal resources among the general population in Greece: A nation-wide survey amid the first Covid-19 lockdown. *International Journal of Psychology*, 56(5), 766–771. https://doi. org/10.1002/ijop.12750
- Katz, C., & Cohen, N. (2021). Invisible children and non-essential workers: Child protection during COVID-19 in Israel according to policy documents and media coverage. *Child Abuse & Neglect*, 116, 104770. https://doi.org/10.1016/j.chiabu.2020.104770
- Keesler, J. M., Wilkerson, D., White, K., & Dickinson, S. (2023).
 Assessing the impact of COVID-19 on social work students.
 Advances in Social Work, 22(3), 1024–1045. https://doi.org/10.18060/26394
- Khalil, H. M., & Megahed, K. (2021). Employment security in Egypt in light of the COVID-19 pandemic: Rethinking policies and practices. Social Protection in Egypt: Mitigating the Socio-Economic Effects of the COVID-19 Pandemic, https://fount.aucegypt. edu/faculty_journal_articles/503

- Khattab, M. F., & Abou-Madawi, A. M. (2020). Current effect of COVID-19 global pandemic on the professional and life profiles of the Egyptian spine surgeons. SICOT-J, 6, 31. https://doi.org/10.1051/sicotj/2020029
- Khoury, E., & Krumer-Nevo, M. (2022). Poverty in arab-palestinian society in Israel: Social work perspectives before and during COVID-19. *International Social Work*, 2. https://doi.org/10.1177/00208728221091125
- Kira, I. A., Shuwiekh, H. A., Ahmed, S. A. E., Ebada, E. E., Tantawy, S. F., Waheep, N. N., & Ashby, J. S. (2022). Coping with COVID-19 prolonged and cumulative stressors: The case example of Egypt. *International Journal of Mental Health and Addiction*, 1–22. https://doi.org/10.1007/s11469-021-00712-x
- Korkmaz, S., Kazgan, A., Çekiç, S., Tartar, A. S., Balcı, H. N., & Atmaca, M. (2020). The anxiety levels, quality of sleep and life and problem-solving skills in healthcare workers employed in COVID-19 services. *Journal of Clinical Neuroscience*, 80, 131–136. https://doi.org/10.1016/j.jocn.2020.07.073
- La Placa, V., McNaught, A., & Knight, A. (2013). Discourse on well-being in research and practice. *International Journal of Wellbeing*, 3(1), 116–125. https://doi.org/10.5502/ijw.v3i1.7
- Lu, M. Y., Ahorsu, D. K., Kukreti, S., Strong, C., Lin, Y. H., Kuo, Y. J., Chen, Y. P., Lin, C. Y., Chen, P. L., Ko, N. Y., & Ko, W. C. (2021). The prevalence of post-traumatic stress disorder symptoms, sleep problems, and psychological distress among COVID-19 frontline healthcare workers in Taiwan. Frontiers in Psychiatry, 12, https:// doi.org/10.3389/fpsyt.2021.705657
- Lyu, Y., Yu, Y., Chen, S., Lu, S., & Ni, S. (2021). Positive functioning at work during COVID-19: Posttraumatic growth, resilience, and emotional exhaustion in Chinese frontline healthcare workers. *Applied Psychology: Health and Well-Being*, 13(4), 871–886. https://doi.org/10.1111/aphw.12276
- Maestre-Miquel, C., López-de-Andrés, A., Ji, Z., de Miguel-Diez, J.,
 Brocate, A., Sanz-Rojo, S., López-Farre, A., Carabantes-Alarcon,
 D., Jiménez-García, R., & Zamorano-León, J. J. (2021). Gender differences in the prevalence of mental health, psychological distress and psychotropic medication consumption in Spain:
 A nationwide population-based study. *International Journal of Environmental Research and Public Health*, 18(12), 6350. https://doi.org/10.3390/ijerph18126350
- Mahamid, F. A., & Bdier, D. (2021). Fear of COVID-19 and mental health outcomes among psychosocial service providers in Palestine: The mediating role of well-being. *Journal of Concurrent Disorders*, 3(1), 45–60. https://doi.org/10.54127/ctyo9044
- Mänttäri-Van der Kuip, M. (2015). Work-related well-being among Finnish frontline social workers in an age of austerity. *Jyväskylä Studies in Education, Psychology and Social Research*, (524). https://jyx.jyu.fi/bitstream/handle/123456789/45924/978-951-39-6191-6_vai-tos29052015.pdf?sequence=1
- Marvaldi, M., Mallet, J., Dubertret, C., Moro, M. R., & Guessoum, S. B. (2021). Anxiety, depression, trauma-related, and sleep disorders among healthcare workers during the COVID-19 pandemic: A systematic review and meta-analysis. *Neuroscience & Biobehavioral Reviews*, 126, 252–264. https://doi.org/10.1016/j.neubiorev.2021.03.024
- McFadden, P., Neill, R. D., Mallett, J., Manthorpe, J., Gillen, P., Moriarty, J., Currie, D., Schroder, H., Ravalier, J., Nicholl, P., & Ross, J. (2022). Mental well-being and quality of working life in UK social workers before and during the COVID-19 pandemic: A propensity score matching study. *The British Journal of Social Work*, 52(5), 2814–2833. https://doi.org/10.1093/bjsw/bcab198
- McNaught, A. (2011). Defining wellbeing. *Understanding wellbeing:* An Introduction for Students and Practitioners of Health and Social Care (pp. 7–23). Lantern, Singapore.



- Mishna, F., Milne, E., Bogo, M., & Pereira, L. F. (2021). Responding to COVID-19: New trends in social workers' use of information and communication technology. *Clinical Social Work Journal*, 49, 484–494.
- Morrow, D. F. (2022). Social work licensure and regulation in the United States: Current trends and recommendations for the future. Research on Social Work Practice, 33(1), 8–14. https:// doi.org/10.1177/10497315221114175
- Mostafa, A., Kandil, S., El-Sayed, M. H., Girgis, S., Hafez, H., Yosef, M., & El-Meteini, M. (2021). Universal COVID-19 screening of 4040 health care workers in a resource-limited setting: An Egyptian pilot model in a university with 12 public hospitals and medical centers. *International Journal of Epidemiology*, 50(1), 50–61. https://doi.org/10.1093/ije/dyaa173
- Nam, P. T., Dung, N. H., Liem, N. K., Hung, N. T., Giang, T. S., Trang, V. T., & Vui, L. T. (2022). Anxiety among hospital social workers in Ho Chi Minh City, Vietnam during the COVID-19 pandemic: Suggestions for social work administration. *International Journal of Mental Health*, 1–16. https://doi.org/10.1080/00207411.2022. 2084671
- Nasr, M., & Eltaiba, N. (2016). Social work in Egypt: Experiences and challenges. Retrieved from https://doi.org/10.9734/ BJESBS/2016/25882
- Nissen-Lie, H. A., Orlinsky, D. E., & Rønnestad, M. H. (2021). The emotionally burdened psychotherapist: Personal and situational risk factors. *Professional Psychology: Research and Practice*, 52(5), 429. https://doi.org/10.1037/pro0000387
- Nuttman-Shwartz, O., & Trauma (2015). Violence & Abuse, 16(4), 466–475. https://doi.org/10.1177/1524838014557287
- Ozcan, O., Hoelterhoff, M., & Wylie, E. (2021). Faith and spirituality as psychological coping mechanism among female aid workers: A qualitative study. *Journal of International Humanitarian Action*, 6(1). https://doi.org/10.1186/s41018-021-00100-z
- Peinado, M., & Anderson, K. N. (2020). Reducing social worker burnout during COVID-19. *International Social Work*, 63(6), 757– 760. https://doi.org/10.1177/0020872820962196
- Prasad, K. D., Vaidya, R. W., & Mangipudi, M. R. (2020). Effect of occupational stress and remote working on psychological wellbeing of employees: An empirical analysis during covid-19 pandemic concerning information technology industry in Hyderabad. *Indian Journal of Commerce and Management Studies*, 11(2), 1–3. https://doi.org/10.18843/ijcms/v11i2/01
- Prowse, R., Sherratt, F., Abizaid, A., Gabrys, R. L., Hellemans, K. G., Patterson, Z. R., & McQuaid, R. J. (2021). Coping with the COVID-19 pandemic: Examining gender differences in stress and mental health among university students. *Frontiers in Psychiatry*, 12. https://doi.org/10.3389/fpsyt.2021.650759
- Redondo-Sama, G., Matulic, V., Munté-Pascual, A., & de Vicente, I. (2020). Social work during the COVID-19 crisis: Responding to urgent social needs. Sustainability, 12(20), 8595. https://doi. org/10.3390/su12208595
- Refeai, S. A., Kamal, N. N., & Ghazawy, E. R. A. (2020). Perception and barriers regarding infection control measures among healthcare workers in Minia City, Egypt. *International Journal of Preventive Medicine*, 11(11). https://doi.org/10.4103/ijpvm. IJPVM 320 18Reppas
- Reppas-Rindlisbacher, C., Mahar, A., Siddhpuria, S., Savage, R., Hallet, J., & Rochon, P. A. (2022). Gender differences in mental health symptoms among Canadian older adults during the COVID-19 pandemic: A cross-sectional survey. *Canadian Geri*atrics Journal, 25(1), 49–56. https://doi.org/10.5770/cgj.25.532
- Riedel, P. L., Kreh, A., Kulcar, V., Lieber, A., & Juen, B. (2022). A scoping review of moral stressors, moral distress, and moral injury in healthcare workers during COVID-19. *International Journal of Environmental Research and Public Health*, 19(3), 1666. https://doi.org/10.3390/ijerph19031666

- Rossi, R., Socci, V., Pacitti, F., Di Lorenzo, G., Di Marco, A., Siracusano, A., & Rossi, A. (2020). Mental health outcomes among frontline and second-line health care workers during the coronavirus disease 2019 (COVID-19) pandemic in Italy. *JAMA Network open*, 3(5), e2010185–e2010185.
- Sarhan, T. M. A., Sloan, L., Rotabi-Casares, K. S., & Hamad Alfalasi, S. J. (2022). Social work codes of ethics in the arab countries of Western Asia: A comparison to the IFSW global statement of ethical principles. *British Journal of Social Work*, 52(5), 3003–3023. https://doi.org/10.1093/bjsw/bcab190
- Schwartz Tayri, T. M. (2023). On the frontlines: The impact of the COVID-19 pandemic on social workers' well-being. *Social Work*, 68(1), 69–80. https://doi.org/10.1093/sw/swac050
- Seng, B. K., Subramaniam, M., Chung, Y. J., Syed Ahmad, S. A. M., & Chong, S. A. (2021). Resilience and stress in frontline social workers during the COVID-19 pandemic in Singapore. *Asian Social work and Policy Review*, 15(3), 234–243. https://doi. org/10.1111/aswp.12237
- Shaheen, H. M., Mahros, O. A., Hegazy, N. N., & Salem, S. S. (2016). Health care providers practice toward patient safety in El-Ebor family health centers, Egypt. *The Egyptian Journal of Community Medicine*, 34(4), 59–68. https://doi.org/10.21608/ejcm.2016.1420
- Shaker, N. M., Sabry, N., Alkasaby, M. A., & Rabie, M. (2021). Predictors of stress among a sample of Egyptian healthcare providers during the COVID-19 pandemic. *Middle East Current Psychiatry*, 28(1). https://doi.org/10.1186/s43045-021-00164-y
- Shangguan, C., Zhang, L., Wang, Y., Wang, W., Shan, M., & Liu, F. (2022). Expressive flexibility and mental health: The mediating role of social support and gender differences. *International Journal of Environmental Research and Public Health*, 19(1), 456. https://doi.org/10.3390/ijerph19010456
- Shier, M. L., & Graham, J. R. (2011). Work-related factors that impact social work practitioners' subjective well-being: Well-being in the workplace. *Journal of Social Work*, 11(4), 402–421. https:// doi.org/10.1177/1468017310380486
- Sischka, P. E., Costa, A. P., Steffgen, G., & Schmidt, A. F. (2020). The WHO-5 well-being index-validation based on item response theory and the analysis of measurement invariance across 35 countries. *Journal of Affective Disorders Reports*, 1, 100020. https:// doi.org/10.1016/j.jadr.2020.100020
- Snoubar, Y., & Zengin, O. (2022). Fear of being infected with Covid-19 virus among the medical docial workers and its relationship to their future orientation. *Frontiers in Psychology*, 13. https://doi. org/10.3389/fpsyg.2022.985202
- Snyder, E., Cai, B., DeMuro, C., Morrison, M. F., & Ball, W. A. (2018). A new single-item sleep quality scale: Results of psychometric evaluation in patients with chronic primary insomnia and depression. *Journal of Clinical Sleep Medicine*, 14(11), 1849–1857. https://doi.org/10.5664/jcsm.7478
- Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24(4), 385. https://doi.org/10.2307/2136404
- Suryavanshi, N., Kadam, A., Dhumal, G., Nimkar, S., Mave, V., Gupta, A., & Gupte, N. (2020). Mental health and quality of life among healthcare professionals during the COVID-19 pandemic in India. *Brain Behavior and Immunity*, 88, 841–848. https://doi. org/10.1016/j.bbi.2020.07.083
- Tercan, M., Bozkurt, F. T., Patmanoğlu, G., Saraçoğlu, G., & Gür, Ş. C. (2020). Anxiety and depression differences between the nurses working at a COVID-19 pandemic hospital. *Medical Science Discovery*, 7(6), 526–531. https://doi.org/10.36472/msd.v7i6.389
- Tosone, C., Nuttman-Shwartz, O., & Stephens, T. (2012). Shared trauma: When the professional is personal. *Clinical Social Work Journal*, 40(3), 231–239. https://doi.org/10.1007/s10615-012-0395-0



- Tosone, C., McTighe, J. P., & Bauwens, J. (2015). Shared traumatic stress among social workers in the aftermath of Hurricane Katrina. *British Journal of Social Work*, 45(4), 1313–1329.
- Travis, D. J., Lizano, E. L., & Mor Barak, M. E. (2015). 'I'm so stressed!': A longitudinal model of stress, burnout and engagement among social workers in child welfare settings. *British Jour*nal of Social Work, 46(4), 1076–1095. https://doi.org/10.1093/ bjsw/bct205
- Troisi, A., Nanni, R. C., Riconi, A., Carola, V., & Di Cave, D. (2021).
 Fear of Covid-19 among healthcare workers: The role of neuroticism and fearful attachment. *Journal of Clinical Medicine*, 10(19), 4358. https://doi.org/10.3390/jcm10194358
- Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International Journal of Environmental Research and Public Health*, 17(5), 1729. https://doi.org/10.3390/ijerph17051729
- World Population Review (2023). Egypt Population 2023 (Demographics, Maps, Graphs). Egypt Population 2023 (Live). Accessed September 3, 2023, from https://worldpopulationreview.com/
- World Health Organization (1948). Constitution of the World Health Organization. Retrieved from https://www.who.int/about/governance/constitution
- Wozniak, H., Benzakour, L., Moullec, G., Buetti, N., Nguyen, A., Corbaz, S., & Pugin, J. (2021). Mental health outcomes of ICU and non-ICU healthcare workers during the COVID-19 outbreak: A cross-sectional study. *Annals of Intensive Care*, 11, 1–10. https://doi.org/10.1186/s13613-021-00900-x
- Wu, J., Zhang, J., Sun, X., Wang, L., Xu, Y., & Zhang, C. (2020). Associations between social support, resilience, depression, and anxiety among people living with HIV in Liaoning, China: A cross-sectional study. *Psychology Health & Medicine*, 25(7), 798–809. https://doi.org/10.1080/13548506.2019.1683615

- Wu, Y., Wei, Y., Li, Y., Pang, J., & Su, Y. (2022). Burnout, negative emotions, and wellbeing among social workers in China after community lockdowns during the COVID-19 pandemic: Mediating roles of trait mindfulness. Frontiers in Public Health, 10, 952269. https://doi.org/10.3389/fpubh.2022.952269
- Yip, K. H., Yip, Y. C., & Tsui, W. K. (2021). Perceptions of special school nurses in Hong Kong during the COVID-19 pandemic. Advances in Nursing & Midwifery, 29(4), 17–23. Retrieved from https://journals.sbmu.ac.ir/en-jnm/article/view/33434
- Yount, K. M., Dijkerman, S., Zureick-Brown, S., & VanderEnde, K. E. (2014). Women's empowerment and generalized anxiety in Minya, Egypt. Social Science & Medicine, 106, 185–193. https://doi.org/10.1016/j.socscimed.2014.01.022
- Zhai, Y., Wang, Y., Zhang, M., Gittell, J. H., Jiang, S., Chen, B., & Wang, X. (2021). From isolation to coordination: How can telemedicine help combat the COVID-19 outbreak? In *Digital Health and Medical Analytics: Second International Conference, DHA 2020, Beijing, China, July 25, 2020, Revised Selected Papers*, 2, (pp. 127–132). Springer Singapore. https://doi.org/10.1101/2020.02.20.20025957

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