



Effect Of Perceived Stress On Psychological Well-Being Of Health Care Workers During Covid 19: Mediating Role Of Subjective Happiness

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Abstract

Medical professionals, including nurses and EMTs, have had to put in extra hours, work rotating shifts, and deal with increased stress as a result of the pandemic, all of which have taken a mental toll on them. There has been a lot of research done on how stress may mess with your head. The goal of this research is to see if the correlation between stress and mental health may be tamed by the presence of more upbeat feelings. Participants in the COVID-19 Study. A total of 231 medical professionals were culled from the staffs of two large COVID-19 hospitals in Northern India. The findings demonstrate the detrimental effects of stress on psychological health, with subjective happiness serving as a buffer. The mental health of medical professionals may be negatively impacted by the stress caused by COVID-19. High levels of happiness reduce the severity of stress's side effects or slow their progression. The researchers here used the Subjective Happiness Scale to measure participants' levels of contentment, perceived stress scale, and the Quantitative Assessment of Mental Well-Being to assess the participants' states of happiness.

Key Words: Levels of subjective well-being, stress perception, and mental health in COVID-19

“Introduction”

The psychological and physiological repercussions of the COVID-19 epidemic have begun and they are terrible. The World Health Organization warns that those infected with COVID-19 may experience high body temperature, coughing, and trouble breathing (2020). Cases of

a pneumonia-like illness traced back to Wuhan City were reported to the Chinese office of the World Health Organization (WHO) in late 2019 or early 2020. On January 3, 2020, there will be 44 patients. The virus first appeared in Wuhan, and from there it spread rapidly around the world. A case of chronic obstructive pulmonary disease (COPD) was first reported in Japan on January 15, 2020; on January 20, 2020, it was reported in Korea; and on February 1, 2020, it was reported in Kerala, India, in a student who had just studied in Wuhan. (India Today, 2020) . As of 2020-08-10, a total of 2217649 instances of COVID has been reported, including 1536259 recoveries and 636427 continuing cases. (Statista, 2020) . As of the 21st of August, 2020, in India, it was estimated that 692,000 cases were still open, 2.1 million had been marked as recovered, and 54,889 had been ruled as fatalities. (Hindustan Times, Aug 21, 2020)

All evidence point to this outbreak becoming a big source of worry for people all throughout the world. Some of the repercussions include extreme fluctuations in mood, increased tension, and concern. (Gunnell et al., 2020).

A person's mental health is best served by a life that is balanced with more positive than negative experiences (Bradburn & Caplovitz, 1965). According to proponents of the hedonic paradigm in psychology, fulfilment comes from a mix of hedonic and no hedonic events (Kubovy, 1999). this theory further, saying that happiness is acquired not merely via the pursuit of instant satisfaction but also through the pursuit and attainment of goals and desirable outcomes in a variety of circumstances. (Gustems et al.,2019)Cohen's perceived stress scale (1994) was used to examine the connection between stress and health, and it was discovered that coping strategies moderated the association between the two.

“Perceived stress and psychological wellbeing”

Aristotle (1947) writes that happiness is "the highest of all things achievable via activity" for "both the average run of men and those of superior refinement." But not everyone shares the same view of what makes life worthwhile; the general public does not always see things as the educated do." Happy psychologist Ed Diener (2000) argues that an increase in positive experiences and a decrease in negative ones are necessary ingredients for happiness. Inspired by the work of psychologists Martin Seligman and Mihaly Csikszentmihalyi, the area of "positive psychology" emerged in 2005 to examine the factors that contribute to flourishing in life. Seligman and Csikszentmihalyi (2005) define positive psychology as "a field of psychology that explores what makes life worth living." When people give their difficulties new significance, they boost their emotional health (Bradburn & Caplovitz, 1965)

When joy is combined with other positive feelings, it leads to a more robust experience of subjective well-being. One is considered to be glad when their positive emotions surpass their negative ones(Diener, 2000). Both subjective indicators (one's personal experience of happiness and fulfillment) and objective indicators (one's state of health) can be used to

assess one's quality of life at work. (Myers, 2013). In the years that followed, scientists dug further into this larger perspective, leading to a more comprehensive concept of well-being. (Freire, 2016) your mental outlook greatly affects how you stressed feel. The most detrimental type of stress to a person's mental and physical health is psychological stress. Reduced contentment is associated with intense stress (Suleman, 2018).

Emotional health is negatively impacted by stress, according to a study that looked at the connection between people's perceptions of stress and their level of emotional stability. Having a strong feeling of one's own resilience can act as a buffer between stress and emotional well-being. (Kozka, & Przybyla-Basista, 2016)

“The mediating role of subjective happiness”

The study of contentment and fulfillment, (Diener, 2000) describes happiness as the mental state that results from having more positive feelings than negative ones. (Seligman and Csikszentmihalyi, 2005) Optimism, resilience, thriving, and the significance of connecting with what matters most to oneself and others are the pillars of positive psychology. (Baumeister et al, 2013) Having one's wants and needs met can increase one's happiness in the here and now, but this has little to do with one's sense of meaning in life, which is rooted in one's past and one's plans for the future. Thus, contentment is tied only to receiving, whereas a fulfilling existence is associated with both receiving and giving. (Abe, 2016), your life will present you with choices between "happiness and meaning-making." (Parks et al, 2012) examined three groups of people to find out what motivates them to pursue happiness, how they go about pursuing it, and what self-help tools they use. Initial findings revealed characteristics and impulsive behaviors associated with pleasure seekers. Happiness, success at work, and overall life satisfaction are all interconnected (Medvedev & Landhuis, 2018).

Happiness depends on “aggregated positive and negative feelings”. Simply expressed, it is the consequence of an individual's contemplation of his or her own existence. Happiness and subjective well-being are frequently used synonymously in psychology (Lyubomirsky, 2013) Positivity, especially when combined with other positive feelings, has the potential to greatly enhance one's quality of life. (Diener, 2000).

Happiness or a broad sense of psychological well-being shines out as significant when one gives different weight to the concepts of challenges he encounters in life.(Bradburn, 1969)

The ratio of happy to sad days might be an indicator of a person's mental health. (Bradburn & Caplovitz, 1965). According to hedonic psychologists, one's feeling of well-being depends on more than just physical pleasures. (Kubovy, 1999). In addition, the idea was developed. He argued that money success alone does not guarantee happiness, but that success in a variety of areas does.

The hedonic perspective, which focuses narrowly on people's feelings of contentment and joy, and the positivity perspective, which emphasises the importance of recognising and

fostering the positive aspects of one's life, are the two main schools of thought in the field of well-being studies. There are three components to the Subjective Well Being (SWB) scale, which assesses how satisfied or dissatisfied a person is with his or her life overall. At its core, it consists of feeling content with one's life, being in a good mood, and not feeling down (Diener 2000).

The mental health of medical professionals and their coping mechanisms have been the subject of several studies assessing the global COVID-19 epidemic. The effects of COVID-19 will vary by age, race, and gender, according to data collected between January 2020 and July 2020. It was usual for Chinese hospital staff caring for patients with COVID-19 to suffer from stress, sadness, anxiety, and insomnia. Taking care of the mental health of medical staff is currently a primary focus. According to the research, middle-level female healthcare workers are the most likely to suffer from stress and anxiety on the job (Lai et al., 2020). Female physicians were more vulnerable to COVID-19, and older doctors experienced less stress than their younger counterparts. Health care providers who were married experienced higher stress levels than their single counterparts. However, the study indicated that both male and female doctors in Oman were adversely affected by high levels of stress. (Badahdah, 2020)

Mental health was shown to be significantly affected by the COVID-19 outbreak, which was first documented in Hubei. Findings from studies in specific by Badadah (2020), Similar to the current study, the elderly and married people here also fared worse emotionally after the pandemic. Women and men did not differ significantly in terms of mental or physical health during the H1N1 and COVID-19 pandemics.

Varshney et al (2020), 68% of respondents said the COVID-19 pandemic had no impact on their mental health, while 13% said it had a moderate impact. Only over a third (33.2%) of the 653 people evaluated did not feel any psychological effects from COVID-19. In a poll, those who reported emotional distress were more likely to be younger, female, and to have a prior medical condition.

Bansal et al (2020)As doctors face numerous difficulties in the face of the COVID-19 pandemic, including despair, weariness, bereavement, social alienation, and isolation, it is crucial to ensure their mental, physical, and spiritual well-being. Shanker et al (2020), In order to meet this task with grace and empathy, healthcare professionals should prioritize their own well-being. Puppet and others (2020), High levels of stress among healthcare workers have been linked to the nation's health authority's inconsistent application of laws and procedures.

Adams and Walls (2020), Telemedicine, patient counselling hotlines, and complex triage systems are all necessary precautions to take during COVID-19 to ensure the safety of healthcare staff. Reassuring patients that they and their loved ones would be given medical top priority in the event of an emergency is a vital step toward earning the trust of those in

the medical field. It has been demonstrated that keeping lines of communication open with frontline care professionals can help alleviate stress.

The health of doctors must be a top priority, and communities should do what they can to support them during this pandemic (Ferry, 2020). The COVID-19 pandemic has increased public discourse about the value of monitoring and getting help for mental health issues. Our only hope for moving past this pandemic is to have leadership that places the welfare of its people at the forefront. Brazeau (2020)

“The Present Study”

The current study was motivated by the aforementioned empirical and theoretical evidence to explore two interrelated questions: How subjective pleasure affects the connection between mental health and perceived stress, and how perceived stress affects the mental health of medical personnel who are caring for COVID-19 patients. An outline of the study's suggested conceptual framework is presented. In Figure

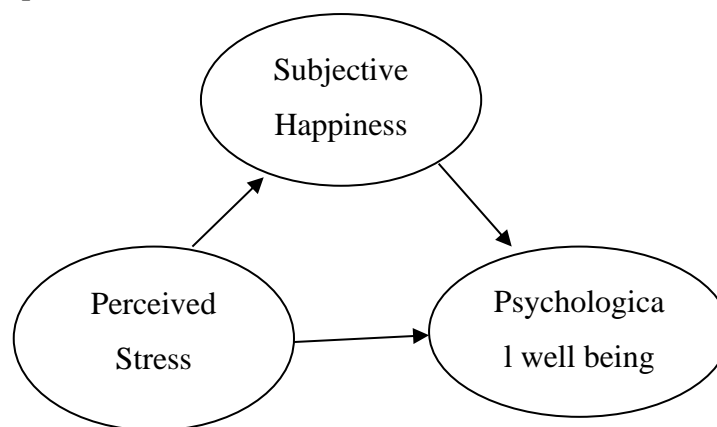
1. The following hypothesis was addressed:

“Hypothesis”

H₀₁: “Perceived Stress has significant effect on Psychological well-being of health care workers”

H₀₂: “Subjective happiness mediates the relationship between perceived stress and psychological well-being.”

Figure 1: “The Conceptual Model”



Methods

Participants and procedure

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There were a total of 231 people employed in the healthcare industry that took part in the study, including 102 physicians, 81 nurses, and 48 administrative and clerical workers. Women made up 69% of the responses from the COVID-19 ward at the private hospital in Northern India, while men accounted for 31%.

“Instruments”

“Psychological Well Being Scale”

Distinguished psychotherapist **Ryff (1989)** There was a 4-point Likert scale for each of the eight survey questions so that participants could rate their level of agreement or disagreement. In the past 30 days, how frequently have you experienced a surprise that didn't sit right with you. The gauge's initial readings were divided into eight segments. Due to a negative item-to-scale association, one of the three scales used in the study was modified by removing an item intended to gauge psychological well-being. On a scale from "strong agreement" to "strong disagreement," the vast majority of responders selected "7. In general, better mental health was associated with higher scores (e.g., "I lead a purposeful and meaningful life during COVID-19").

“Perceived Stress Scale”

“Perceived stress was assessed using the Perceived Stress Scale given by”Sheldon Cohen (1994). Upon finding the connecting data, two were subsequently removed. Every one of the eight questions in the poll included a corresponding 4-point Likert scale on which respondents could express their degree of agreement or disagreement. How often in the previous 30 days have you been taken aback by a development that didn't set well with you?

“Subjective Happiness Scale”

“Happiness can be used to measure Subjective Happiness Scale”(Lyubomirsky & Lepper 1999). Weak inter-item consistency necessitates dropping one of the four factors from our measure. Three of the questions at the end of the survey used a seven-point Likert scale, from "strongly disagree" to "strongly agree." The range of available points was rather large, from four to twenty-eight. The authors used structural equation modeling and correlation analysis to look at the ties that bind mental health, happiness, and self-actualization.

Data Analyses

Structural equation modelling followed correlation analysis, internal reliability testing, and descriptive statistics. The values for skewness and kurtosis were within the allowable range, indicating a normally distributed distribution of |2| (Field, 2009). A measurement model was created to analyse the CFA model's factor structure. The results of the measurement model are displayed using the thresholds of several indicators.

“RESULTS”

Table 1: “Frequency Distribution”

“Variable”	“Freque n”	“Perc e”	“Mean ”	“Standard Deviation”
Gender				
Males	71	30.7	1.693	.462 4
Females	160	69.3		
Age			1.904 8	.757 3
25-35	78	33.8		
36-45	97	42.0		
46and above	56	24.2		

“The preliminary analysis reflect acceptable distribution of data as the range of skewness was found as -.042 to 1.19 and values of Kurtosis ranging between -0.7 to 1.02.”

The demographic distribution showed that female healthcare professionals' psychological well-being was substantially more affected by perceived stress than was the case for male healthcare workers.

Table 2: “Descriptive Statistics of Perceived Stress”

“Perceived Stress”	“Mea n”	“Std. Dev.”	“Min ”	“Max ”	“Skewne ss”	“Kurtosi s”	“a”
“In the last few months(since the onset of COVID-19), how often have you felt that you were unable to control the important thing sin your life?(PS2)”	1.684	1.215 7	1.0	5.0	1.813	2.116	
“In the last few months(since the onset of COVID-19), how often have you felt nervous and “stressed”?(PS 3)”	1.761 9	.9643 8	1.0	5.0	1.403	1.825	

“In the last few months (since the onset of COVID-19), how often have you felt confident about your ability to handle your personal problems? (PS4)”	1.948 1	1.082 22	1.0	5.0	1.059	.452	
“In the last few months(since the onset of COVID-19), how often have you felt hat things were going your way?(PS5)”	2.160 2	.8211 2	1.0	4.0	.171	-.652	
“In the last few months (since the onset of COVID-19), how often have you found that you could not cope with all the things that you had to do? (PS6)”	2.359 3	.9117 1	1.0	4.0	-.045	-.893	
“In the last few months (since the onset of COVID-19), how often have you found that you could not cope with all the things that you had to do? (PS7)”	1.900 4	1.001 54	1.0	4.0	.778	-.581	
“In the last few months (since the onset of COVID-19), how often have you found that you could not cope with all the things that you had to do? (PS8)”	1.727 3	.8693 3	1.0	4.0	1.001	.146	
“In the last few months (since the onset of COVID-19), how often have you found that you could not cope with all the things that you had to do? (PS9)”	1.437 2	.7713 3	1.0	4.0	1.703	2.003	

Following the discovery of the inter-item link, two items from the aforementioned perceived stress scale were eliminated. Firstly, “In the last few months (since the onset of COVID-19), how often have you been upset because of something that happened unexpectedly? (PS 1)”

and secondly, “In the last few months (since the onset of COVID-19), how often have you felt difficulties were piling up so high that you could not overcome them? (PS 10)”.

Table 3: “Descriptive Statistics of Subjective Happiness”

“Subjective Happiness”	“Mean”	“Standard Deviation”	“Min”	“Max”	“Skewness”	“Kurtosis”	“α”
“Compared to most of my peers, I consider myself happier”	4.0823	1.07022	2.0	7.0	.457	.172	
“I am generally very happy and enjoy life regardless of what is going on, getting the most out Of everything.”	3.7056	.97352	2	6.0	-.008	-1.007	
“I am generally not very happy. Although I am not depressed, but I am actually not as happy As I am supposed to be.”	4.7706	.94372	2.0	7.0	-.090	-.385	

Table4: “Descriptive Statistics of Psychological Well-being”

“Psychological well-being”	“Mean”	“Standard Deviation”	“Min”	“Max”	“Skewness(b/n-1 and+1)”	“Kurtosis(b/n-3 and+3)”
“My social relationships are supportive and rewarding since the outbreak of COVID-19(PWB2)”	4.623	1.0263	2.0	7.0	.223	-.516
“Since the outbreak of COVID-19,I”m Engaged and interested in my routine activities as usual(PWB3)”	3.848	.7904	2.0	7.0	.436	-.537

“I actively contribute to the happiness and well-being of others during COVID-19(PWB4)”	5.009	1.0257	3.0	6.0	.056	-.373
“During COVID-19, I find myself competent and capable in the activities That are important to me(PWB5)”	4.909	.9397	2.0	7.0	-.293	.090
“I am a good person and live good life Performing my duties during COVID-19 (PWB6)”	5.303	1.0189	2.0	7.0	-.139	-.460
“I am optimistic about my future during COVID-19(PWB7)”	4.874	1.0862	2.0	7.0	-.097	-.401
“People respect me because of my Profession and role during COVID-19(PWB 8)”	4.827	1.2702	1.0	7.0	-.030	-.177

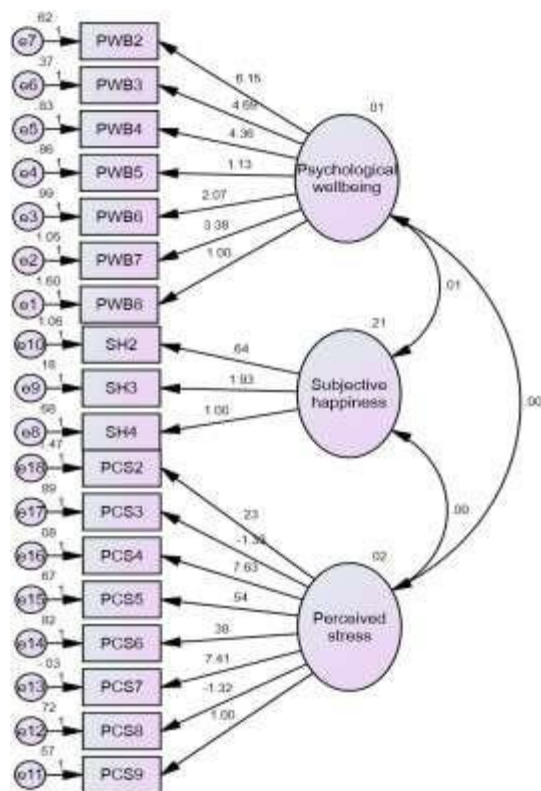
The statement "I lead a purposeful and meaningful life during COVID-19 (PWB 1)" Because it doesn't line up with the rest of the emotional wellness scale. Similar to this, one of the four items on the Subjective Happiness scale had the phrase "In general, I consider myself a highly happy person" removed.

Table 5: “Descriptive Statistics of variables”

“Variable”	“Mean”	“Std. Dev.”	“Min”	“Max”	“Skewness”	“Kurtosis”	“α”
“Age”	38	0.74	1.0	3.0	0.029	-1.18	-
“Gender”	1.58	0.49	1.0	3.0	-.308	-1.940	-
“Perceived Stress”	39.21	3.85	1/0	7.0	-.25	-.70	0.531
“Subjective Happiness”	16.48	4.65	1.0	7.0	-0.42	-.44	0.435
“Psychological Well-being”	17.50	2.47	1.0	7.0	.34	-.26	0.460

Figure2: “Confirmatory Factor Analysis”

“The result of test-retest reliability of the scale was ($r=.78$) and item total correlation varied



between .75 and .80. The higher score of goodness of fit (GFI) index indicated higher level of Psychological well being (NFI=.96 CFI=.97, RFI= .95, GFI=.95, AGFI= .96, RMSEA= .056, and IFI= .95). The Cronbach Alpha which is a measure of internal consistency was .78.”

“The results of the regression analysis show that Perceived stress and Subjective happiness are correlated with Psychological wellbeing.”

Table 6: “Regression Weights of Perceived Stress”

“Variable”	“Estimate”	“S.E”	“C.R”	“P”
PCS2	1.000	.042	23.102	.001
PCS3	.862	.051	23.854	.001
PCS4	.938	.040	23.593	.001
PCS5	.899	.038	23.777	.001
PCS6	.895	.042	21.306	.001
PCS7	.827	.049	23.593	.001
PCS8	.815	.043	21.743	.001
PCS9	.806	.051	22.309	.001

Table7: “Regression Weights of Subjective Happiness”

“Variable”	“Estimate”	“S.E”	“C.R”	“P”
“Compared to most of my peers, I consider myself happier”	.951	.030	23.234	.001
“I am generally very happy and enjoy life regardless of what is Going on, getting the most out of everything.”	.902	.031	23.912	.001
“I am generally not very happy. Although I am not depressed, But I am actually not as happy as I am supposed to be.”	.824	.047	21.320	.001

Table 8: “Regression Weights of Psychological wellbeing”

“Variable”	“Estimate”	“S.E”	“C.R”	“P”
“PWB 2”	.878	.041	21.314	.001
“PWB 3”	.969	.046	20.843	.001
“PWB 4”	1.115	.048	23.269	.001
“PWB 5”	1.066	.046	23.225	.001
“PWB 6”	1.054	.046	22.835	.001
“PWB 7”	.997	.046	21.787	.001
“PWB 8”	1.000	.52	20.12	.001
“PWB 9”	.982	.046	21.787	.001

Table9: “ModelFit”

“Index”	“Value”	“Acceptancelevel”	“Does it meet theacceptancelevel?”
“GFI(Hu&Bentler,1999;Hooper et al,2008)”	0.95	“greaterthan0.90”	Yes
“RMSEA(Huand Bentler, 1999)”	0.56	“0.60or less”	Yes
“AGFI(Hooper etal,2008)”	0.96	“greaterthan0.90”	Yes
“NFI(Hu&Bentler,1999;Kline,2015;Byrne 2010)”	0.96	“greaterthan0.90”	Yes

“CFI(Hu &Bentler,1999)”	0.97	“greaterthan0.90”	Yes
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The model fit was assessed when further structural modelling was done. As a result, Table 10's values accurately reflect the sample data. The model fitting procedure establishes the degree of fit between the sample data and the proposed model (Jang,2008).

Goodness of fit is the degree to which the proposed model can reproduce the observed covariance matrix between the indicator items (i.e. the similarity of the observed and estimated covariance matrices). The fit is regarded as satisfactory when it satisfies the generally accepted limit $RMSEA \leq 0.10$ (Kline, 2015); RMSEA less than .10 is acceptable ((Hu & Bentler, 1999; Kline, 2015) Acceptable model fit is indicated by a CFI value of 0.90 or greater (Hu & Bentler, 1999). Similarly, alternative measures of fit, such as the NFI, the GFI are considered acceptable if above 0.90 (Hu & Bentler, 1999). The recommended level of GFI and AGFI is 0, while the recommended acceptance level is between 0 and 1, which implies a poor fit to a perfect fit. is 0.90 (Hooper et al, 2008). The proposed model was tested using structural equation modelling, and the results indicated good agreement.

The bootstrapping method is often put to use to learn how happiness moderates the connection between stress and mental health outcomes. There is an opportunity for full or partial mediation here. However, full mediation eliminates the significance of the direct impact, whereas partial mediation permits some of it to persist. If we can verify that the ensuing direct and indirect consequences are substantial, then we have a fighting chance of success with either of these approaches. The Monte Carlo Bootstrap is often employed in scientific studies due to its widespread acceptance and proven accuracy. After doing a Monte Carlo bootstrap mediation study of stress and happiness, I will provide the results here. Table 11.

Table 11: “Mediation of subjective happiness between perceived stresses on psychological well being”

“Type of effects”	Construct			Standardized Beta coefficient	P value	Remark
	Exogenous	Mediating	Endogenous			
Total effect	Perceived stress	Subjective happiness	Psychological wellbeing	0.500	0.021	“Significant effect of Perceived stress on Psychological wellbeing Exists”

Indirect effect	Perceived stress	Subjective happiness	Psychological wellbeing	0.173	0.017	“Significant mediation effect of Subjective happiness exists between Perceived stress and Psychological wellbeing”
“Direct” effect	“Perceived stress”	“Subjective happiness”	“Psychological wellbeing”	0.247	0.015	Significant Partial
						“mediation effect of Subjective happiness exists between Perceived stress and Psychological well Being”

The results demonstrate a statistically significant relationship between psychological health and general stress perceptions, with a p value of 0.500. (Displaying a p value of 0.021). It was also discovered that felt stress acted as a mediator between the decline in psychological health as measured by subjective happiness: Standardized Beta = 0.173, p = 0.17. Subjective happiness is a potential modulator of the relationship between stress and mental health. given the sizeable effects of both Perceived stress and Subjective happiness on Psychological well-being.

Discussion

According to the results, there is a link between emotional suffering and a heightened sensitivity to stress. The subjective well-being of healthcare practitioners was found to be low during COVID-19. There was a considerable increase in reported stress due to the discrepancy between the government of India plans and the findings of the scientific community over COVID-19. the mental health of the surgical staff suffered greatly when an acute respiratory condition known as COVID-19 broke out. There is an unmistakable correlation between one's stress levels and the caliber of sleep they get the hospital workers in Wuhan who deal directly with patients were under a lot of pressure and were feeling down.

Limitations and contributions

Given the regular 10-day shift swaps that occur among medical staff, this study is an example of cross-sectional research. It was therefore impossible to get in touch with the same group

after a certain period of time had passed. A long-term study may shed light on the mediation model's efficacy. Convenient sampling may have also reduced the validity of the findings. The COVID-19 specimen was donated by a hospital in the Indian state of Uttar Pradesh. Actually, it was a private medical centre that had been renovated. This information imposed constraints on how far the research might go.

Researchers at COVID-19 who are interested in the connection between stress and mental health in the healthcare workforce should adopt a holistic strategy that accounts for the influence of a number of demographic and psychological parameters.

Conclusion

The results show that the pleasure of doctors and nurses mediates the relationship between stress and their perception of their own mental health. Overall mental health did not appear to be affected by stress levels, as reported by the study's participants. The results will go a long way toward suggesting to policymakers how to identify remedial ways of lowering this stress, which is especially important for frontline health care personnel whose mental health could be compromised if Through this epidemic, many people have placed their trust in them, but they have fallen short of those lofty expectations.

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