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Correlation Of Psychological Well-Being With Spirituality And Resilience In Doctors Posted In COVID Positive Wards-An Observational Study

[1]Dr. Tanvi Shaikh*, [2]Dr. Dimple Dadarwala, [3]Dr. Ritambhara Y Mehta

[1]3rd year Psychiatry Resident, [2]Assistant Professor, [3]Professor and Head of the Department,
, OPD-13, Department of Psychiatry Government Medical College, New Civil Hospital Campus, Majuragate, Surat, Pin No: 395001

***Corresponding Author:**
Dr. Dimple Dadarwala

[2]Assistant Professor , OPD-13, Department of Psychiatry, Government Medical College, , New Civil Hospital Campus, Majuragate, Surat, Pin No: 395001

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Abstract

Introduction: COVID-19 pandemic led to unexpected increase in work load and working hours over doctors, which could affect quality of life, physical health, coping and psychological well-being. Resilience and Spirituality helps building positive psychological well-being. Hence with this in background, we conducted this study.

Aims and Objectives:

a) To find psychological well-being of doctors posted in COVID positive wards
b) To evaluate the resilience of doctors posted in COVID positive wards
c) To know about spiritual health of doctors posted in COVID positive wards
d) To find co relation between psychological well-being with resilience and spirituality in doctors posted in COVID positive wards

Material and Methods: 90 doctors of one of the COVID notified and tertiary care Civil Hospital of Gujarat, posted in COVID-19 positive wards were enrolled in this study after taking informed consent through Google Form. The Psychological Well-being, Resilience and Spiritual Health were assessed using Ryff's Psychological Well Being scale, Connor Davidson resilience Scale-25and Spiritual Health Assessment Scale respectively.

Statistical analysis used: Chi- square test, Pearson's correlation

Results and Conclusion: More than Half of the total population had high Psychological well-being, high Resilience and Good Spirituality (52%, 59% and 59% respectively). Psychological well-being was positively correlated with Resilience and Spirituality. Other factors associated with higher Psychological well-being, High Resilience and Spirituality included less duration of duty hours, less frequent rotation, specialties and year of residency.

Keywords: Psychological well-being, Resilience, Spirituality, COVID 19

Introduction

Catastrophic pandemics have been occurring at regular intervals throughout human history, with the latest one being COVID-19(Novel Corona Virus Disease-19) [1]. The COVID-19 pandemic has led to an increase in mental health difficulties and decreased well-being; have resulted in people reporting feelings of loneliness, increased anxiety, depression etc. [2]. These feelings show poor coping and negative aspects of mental health. Resilience (good adaptability or rebound ability) and Spirituality (search for the meaning of life and sense of connectedness to universe) is protective and positive aspects of psychological well-being. Very few or no

study has done to assess the positive aspects of mental health.

Psychological well-being and satisfaction with life are two important components of Well Being and Health Related Quality of Life [3]. Disaster like pandemics can affect psychological well-being of general population as well as Doctors. During such disasters, general population experiences emotional disturbances like anger, anxiety and loneliness; but doctors are more vulnerable as they are subjected to additional stress due to their involvement in the event like uncertainty of the event, separation from their loved ones, fear of persistent risk for exposure and death, dealing with death of patient despite giving best treatment, workforce quarantine etc. [4, 5]. After a month of a disaster, study by Lu YC et al (2006) found that, about one in six healthcare providers develop significant stress symptoms [6]. Many factors contributed to psychological well-being such as Resilience, Spirituality, Duty Hours, workplace etc. Very few studies have examined correlation between Psychological well-being and Resilience.

Resilience refers to a "rebound ability" that allows humans to maintain good adaptability in the face of life adversities, threats, or other major stressful events [7]. Previous research showed that having good resilience can help medical staff alleviate adverse effects brought on by various stresses [8]. Maunder RG et al (2008) study found that measures taken to increase resilience can reduce the expected stress of an influenza outbreak such SARS on medical staff as well as benefits the physical and mental health of the medical staff**.**[9]One study showed, significant positive correlation of resilience with life satisfaction, perceived social support, taking personal precautions against corona virus and quality of sleep, meaning that an increasing level of psychological resilience leads to a higher level of these variables and vice versa.[10]

Spirituality is a concept which is hard to define as everyone has different understanding of it means. It involves the way people live their life to fulfill the purpose of their life. It also involves search for the meaning of life and sense of connectedness to universe. [11] The idea of being spiritual is not materialistic; rather it is more of religious, philosophical, moral and ideological in nature. [12] WHO has also given importance to spiritual dimension in maintenance of health along with physical, mental and emotional wellbeing. The World Health Organization is also looking beyond physical, mental and social dimensions of the health i.e. the spiritual health and its impact on the overall health and happiness of an individual. [13] In recent times, scientists, psychiatrist, psychologist and other researchers have come to acknowledge the role and importance of spirituality in maintenance of mental health and emotional wellbeing.

Researchers have shown that association between Spirituality and Mental health attempts to understand various mechanisms through which it benefits the mental health. These mechanisms or factors include coping style, locus of control, social support and social networks.[14]

With these in mind, this study was carried out to evaluate relationship between Psychological wellbeing, Resilience and Spirituality among doctors posted in COVID19 positive wards.

Material And Methodology:

This was a cross sectional study, carried out at tertiary care hospital which was the only COVID notified hospital in metropolitan city of south Gujarat at the time the study.90 doctors from this Hospital posted in COVID-19 positive wards were enrolled in this study after taking informed consent through Google Form during the months of May-June,2020. Google form link had been forwarded via social media like WhatsApp. The data collected through Google form was analyzed to assess Psychological Well-being, Resilience and Spirituality using Ryff's Psychological Well Being (PWB scale) scale, Connor Davidson resilience Scale-25(CD-RISC 25) and Spiritual Health Assessment Scale (SHAS) respectively using SPSS 23 software. After collecting data, analysis was done and appropriate Statistical tests were used like chi square, Pearson's correlation test. After collecting data, anonymity of student's scores was maintained.

Ryff's Psychological Well-Being Scale [15]

This Scale was developed by psychologist, Carol D Ryff in 1989. There are 5 version of scales (20 items, 14 items, 9 items, 7 items and 3 items) to measure the dimensions of autonomy, environmental mastery, personal growth, positive relations with others,

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purpose in life, and self-acceptance. We have used 7 items scale in our study

In our study we have categorized PWB score in two parts (i.e. High PWB and Low PWB), considering the mean score as cut off. High PWB=more than mean score and Low PWB=less than mean score.

Response formats: strongly disagree (1), disagree somewhat (2), disagree slightly (3), agree slightly (4), agree somewhat (5), strongly agree (6).

Connor Davidson Resilience Scale [16]

The Connor-Davidson Resilience Scale (CD-RISC) was developed by Kathryn M. Connor and Jonathan R.T. Davidson as a means of assessing resilience in 2003[16]. There are three versions of scales (CD RISC-25, CD RISC-10 and CD RISC 2). We have used CD RISC-25 in our study.

The CD-RISC-25 consists of statements describing different aspects of resilience. The scale incorporates items which measure hardiness (i.e. commitment/challenge/control), coping, adaptability/flexibility, meaningfulness/purpose, and optimism, regulation of emotion and cognition, and self-efficacy.

We distributed the data according to mean and categorized the data in 2 categories i.e. High Resilience and Low resilience. High resilience = more than mean score and Low resilience= Less than mean score.

The total score is obtained by adding up all the 25 items, which are evaluated on a five-point Likert scale ranging from 0-4: not true at all (0), rarely true (1), sometimes true (2), often true (3), and true nearly all of the time (4), which gives a score that can range from 0 to 100. Higher scores indicate greater resilience.

Spiritual Health Assessment Scale [17]

Spiritual Health Assessment Scale is developed by Dr. Kusum Lata Gaur and Dr. Mahesh Sharma in 2014. This scale contains three domains for assessment of spiritual health i.e. Self-development, Self-Actualization and Self-Realization. Each of the domains has seven items in itself related to domain.[16]

1. **Self-Development**: To achieve and maintenance of spirituality, development of self is needed can be assessed by Prudence, Gratitude, Generosity, Charity, Patience, Self-control and Moral.
2. **Self-Actualization**: How much you know yourself can be assessed by Introspection, Purpose of life, Way of Life, Strengths, Weaknesses, Solutions and End of Life
3. **Self-Realization**: How much you realize yourself can be assessed by Thoughtlessness, Satisfaction, Freedom, Nigum Facts, Bliss and Sixth Sense.

Each of items is given scoring on 5-point Likert scale i.e. score '1' for 'Never', score '2' for 'Rarely', score '3' for 'Seldom', score '4' for 'Often' and score '5' for 'Always' Likewise each domain score ranges from '7' to '35' and total spiritual health score ranges from '21' to '105'. Poor spiritual health was considered when spiritual health score between '21' to '49', fair spiritual health was considered when spiritual health score between '49' to '77' and good spiritual health was considered when spiritual health score between '77' to '105'.

Results

Around 90 doctors who were posted in COVID positive wards participated in this study through Google form. This study was conducted to find their psychological well-being, resilience and spiritual health.

Out of 90 doctors 63(70%) were males and 27(30%) were females. From 90, 34(38%) participants were from clinical core branches (medicine, anesthesia, pulmonary medicine and pediatrics), 52(58%) were from clinical non-core branches (surgery, orthopedics, psychiatry, dermatology, radiology, OBGY, ophthalmology, ENT, Community medicine) and 4 (4%) were from Para clinical branches (pharmacology, pathology, microbiology, Forensic medicine).

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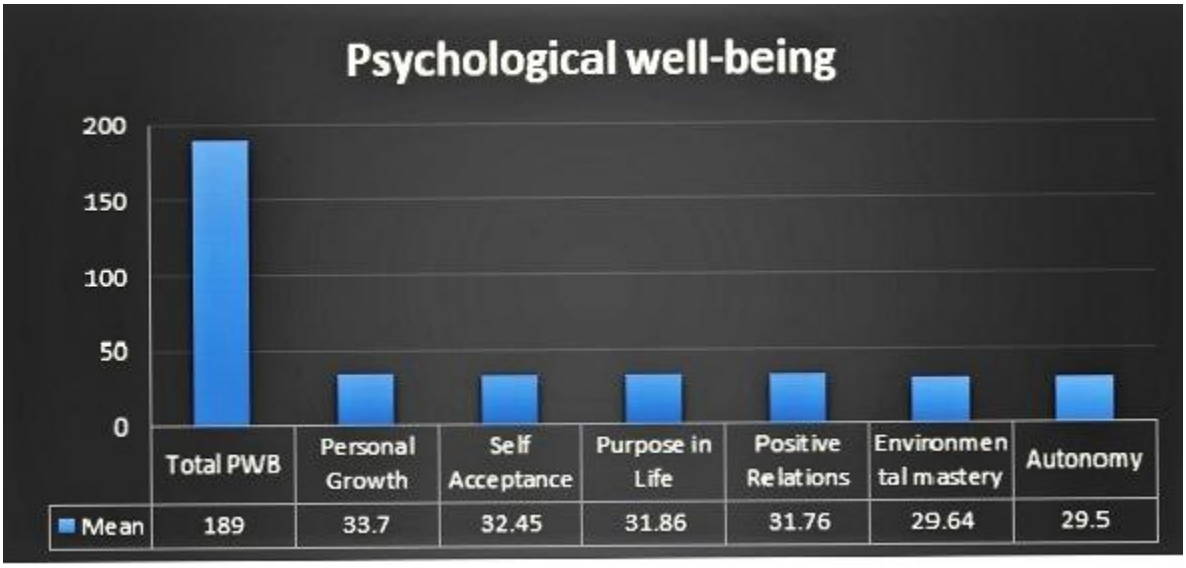
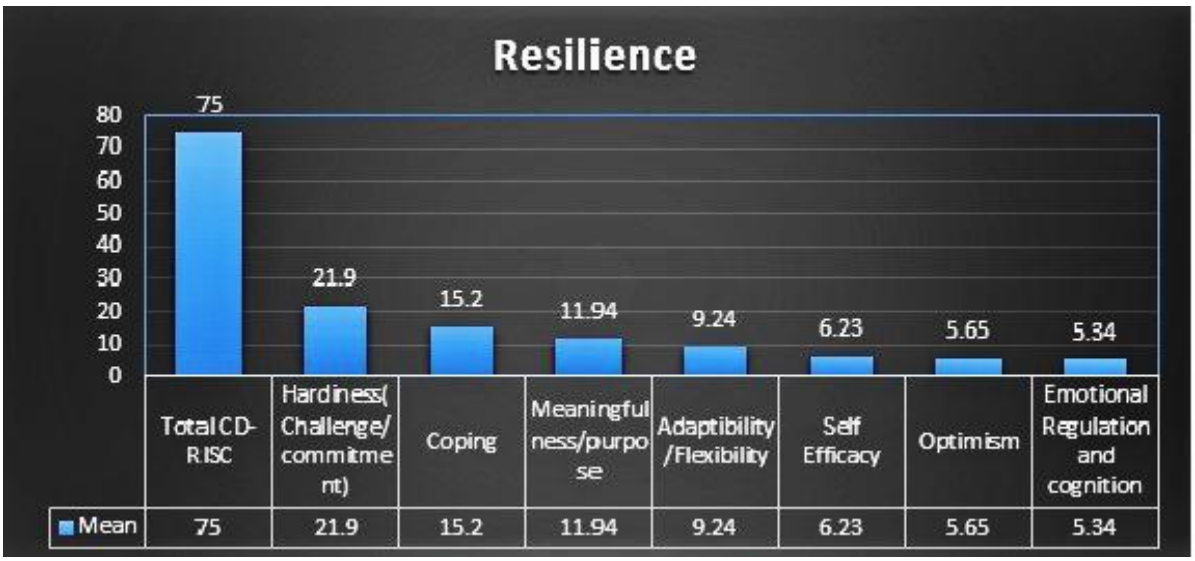
"Image 1: Psychological well-being of doctors posted in COVID positive wards"



The mean of Total psychological wellbeing was found to be 189 with minimum score being 107 and maximum score being 245 in our study.

As seen in image 1, out of 6 domains of Psychological well-being (i.e. autonomy, environmental mastery, personal growth, positive relations, purpose in life and self-acceptance), the mean score was more in domain of personal growth (mean=33.7) followed by self-acceptance (mean=32.45), purpose in life (mean=31.86), positive relations (mean=31.76), environmental mastery (mean=29.64) and autonomy (mean=29.5).

"Image 2: Resilience in Doctors posted in COVID positive wards"



The mean Resilience calculated with help of CD-RISC 25 was found to be 75 with minimum score of 20 and maximum score of 100.Out of 7 domains of CD-RISC 2, Mean score was higher in domain of hardiness (mean=21.9) followed by coping (mean=15.2), meaningfulness/purpose (mean=11.94), adaptability/flexibility (mean=9.24), self-efficacy(mean=6.23), optimism(mean=5.65), emotional regulation and cognition(mean=5.34)(Image 2)

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"Image 3: Spiritual Health in Doctors posted in COVID positive wards"

As shown in image 3, the mean for Spiritual health was found to be79 with minimum score being 48 and maximum score being 105 in our study.

Out of three domains of Spiritual health, mean score was highest in Self-development (mean=28) and lowest in Self-Realization (mean=24.6)

Table 1 showed correlation of Psychological well-being with resilience and spirituality and it was significantly and positively correlated with resilience and spirituality and vice versa means more the resilience and spirituality more is the psychological well-being and vice versa (Correlation Coefficient for Resilience and Spirituality are .737 and .333 respectively, $p<0.05$ i.e. $p=0.00$ and $p=0.001$ respectively). We also found in our study that 54% of the variability of psychological well-being was accounted to resilience and only 11% of the variability of psychological well-being.

As in Table 2, it was found that 52% of the total populations (47 out of 90) had high Psychological well-being (more than mean 189). Amongst doctors having high psychological wellbeing, female doctors (63%) were more as compare to male doctors (48%).

Almost two third of the doctors (60%) from Clinical noncore branches had high Psychological well-being whereas half of the doctors (50%) from Para clinical branches and less than half (41%) of the doctors from Clinical core branches had high psychological wellbeing.

Almost three fourth of first year residents (71%), posted in COVID positive wards had high psychological well-being, whereas only half of the third-year residents (48%) and around one third of second year residents (39%) had high psychological well-being.

Almost two third of the doctors (59%), with 8 hours of duty in COVID positive ward and less frequent rotation for COVID duty (i.e. every alternate fortnight/month) had high psychological well-being whereas only less than half (41%) of the doctors with 12 hours of duty in COVID positive ward and more frequent rotation for COVID duty (i.e. every alternate week/month) had high psychological well-being.

As shown in Table 3, 53 out of 90 doctors (59%) had high Resilience. Amongst doctors, having high resilience, male doctors were more (62%) as compare to female doctors (52%) having high resilience.

Almost three fourth of the doctors (71%) from Clinical noncore branches had high resilience; whereas half of the doctors (50%) from Para clinical branches and only few doctors (41%) from Clinical Core branches had high resilience.

We also found in our study that, almost two third of 1st year resident doctors (68%) and 3rd year resident doctors (62%) had high resilience whereas less than half of the 2nd year resident doctors (48%) had high resilience.

Almost three fourth of the doctors (70%), with 8 hours of duty/day and less frequent rotation for

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COVID duty in a month (i.e. every alternate fortnight) had high resilience whereas very few doctors (41%), with 12 hours of duty/day and more frequent rotation for COVID duty in a month had high resilience.

Table 4 stated that, 53 out of 90 doctors (59%) had good Spiritual health. Amongst doctors, having good Spiritual health, male doctors were more (64%) as compare to female doctors (48%) having good Spiritual health.

All doctors (100%) from Para clinical branches had good Spiritual health whereas almost two third of the doctors (67%) from Clinical Noncore branches and very few doctors (41%) from clinical core branches had Good Spiritual health.

It was also found that, amongst doctors from all three years of residency, almost two third of the doctors from third year (66%) and first year (62%) had good Spiritual health while only half of the doctors from second year (52%) had good Spiritual health.

Almost three fourth of the doctors (70%), with 8 hours of duty/day and less frequent rotation for COVID duty in a month (i.e. every alternate fortnight) had good Spiritual health whereas very few doctors (41%), with 12 hours of duty/day and more frequent rotation for COVID duty in a month had good Spiritual health.

"Table 1: Correlation of Psychological well-being with Spiritual Health and Resilience"

	Total- PWB	***Total –CD RISC***	***Total-SHAS***	***r^2***
Total -PWB	**1**			
Total CD-RISC	**0.737****	**1**		**0.54**
Total - SHAS	**0.333****	**0.446****	**1**	**0.11**

** P value <0.05, r^2= coefficient of determination

"Table 2: Association of Psychological well-being with Socio demographic data and Clinical profile"

Psychological well Being * Socio demographic and Clinical profile		**High Psychological Well being N (%)**	**Low Psychological Well Being N (%)**	**Total N**	**P value**
Gender	Male	30 (48%)	33 (52%)	63	0.25
	Female	17 (63%)	10 (37%)	27	
	Total	47(52%)	43(48%)		
Specialties	Clinical Core	14 (41%)	20 (59%)	34	0.25
	Clinical Non-Core	31 (60%)	21 (40%)	52	
	Para Clinical	2 (50%)	2 (50%)	4	
Year of Residency	1st Year	20 (71%)	8 (29%)	28	0.04
	2nd year	13 (39%)	20 (61%)	33	
	3rd year	14 (48%)	15 (52%)	29	
Duration of Duty hours/day	8 hours/day	33 (59%)	23 (41%)	56	0.12
	12 hours/ day	14 (41%)	20(59%)	34	

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Frequency of Rotation/month	Every Alternate Fortnight	33 (59%)	23 (41%)	56	0.12
	Every Alternate Week	14 (41%)	20 (59%)	24	

"Table 3: Association of Resilience with Socio demographic data and Clinical profile"

Resilience * Socio demographic and clinical profile		**High Resilience N (%)**	**Low Resilience N (%)**	**Total**	**P value**
Gender	Male	39 (62%)	24 (38%)	63	0.48
	Female	14 (52%)	13 (48%)	27	
	Total	53(59%)	37(41%)		
Specialties	Clinical Core	14 (41%)	20 (59%)	34	0.01
	Clinical Non-core	37 (71%)	15 (29%)	52	
	Para Clinical	2 (50%)	2(50%)	4	
Year of Residency	1st year	19(68%)	9(32%)	28	0.31
	2nd Year	16(48%)	17(52%)	33	
	3rd Year	18(62%)	11(38%)	29	
Duration of Duty Hour/day	8 hours/day	39(70%)	17(30%)	56	0.009
	12 hours/day	14(41%)	20(59%)	34	
Frequency of Rotation /Month	Every Alternate Fortnight	39(70%)	17(30%)	56	0.009
	Every Alternate Week	14(41%)	20(59%)	34	

"Table 4: Association of Spiritual Health with Socio demographic data and Clinical profile"

Spiritual health * Socio demographic data and Clinical profile		**Good Spiritual health**	**Fair Spiritual health**	**Poor Spiritual health**	**Total**	**P value**
Gender	**Male**	**40(64%)**	**21(33%)**	**2(3%)**	**63**	
	Female	**13(48%)**	**14(52%)**	**0(0%)**	**27**	**0.2**
	Total	**53(59%)**	**35(39%)**	**2(2%)**		
Specialties	**Clinical Core**	**14(41%)**	**20(59%)**	**0(0%)**	**34**	**0.01**
	Clinical Non-Core	**35(67%)**	**15(29%)**	**2(4%)**	**52**	
	Para Clinical	**4(100%)**	**0(0%)**	**0(0%)**	**4**	
Year of Residency	**1st Year**	**17(61%)**	**11(39%)**	**0(0%)**	**28**	**0.6**
	2nd Year	**17(52%)**	**15(45%)**	**1(3%)**	**33**	
	3rd Year	**19(66%)**	**9(31%)**	**1(3%)**	**29**	

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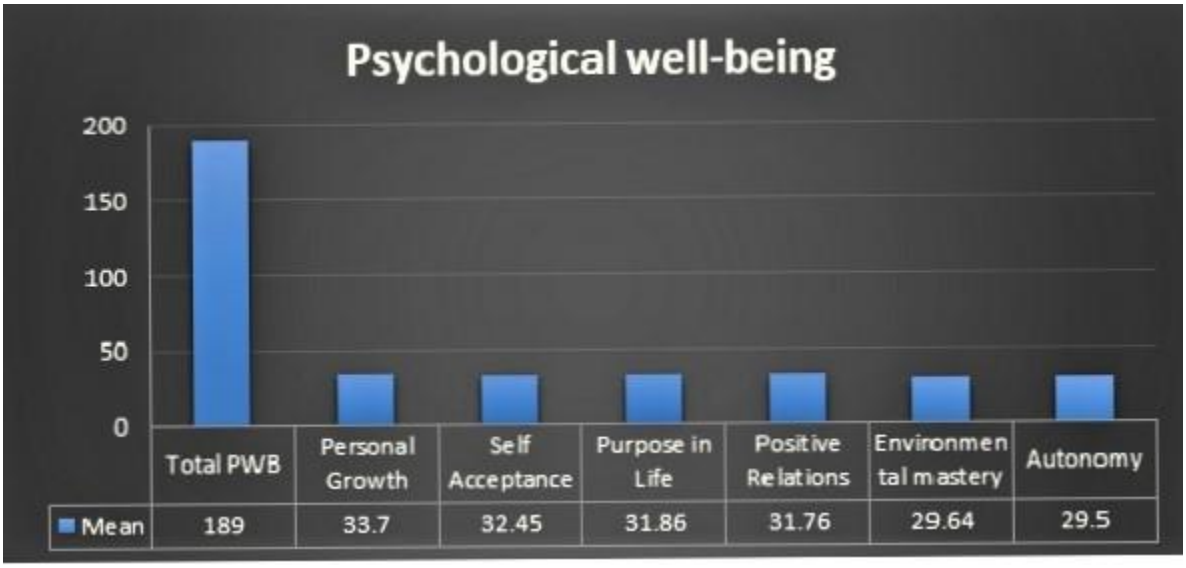
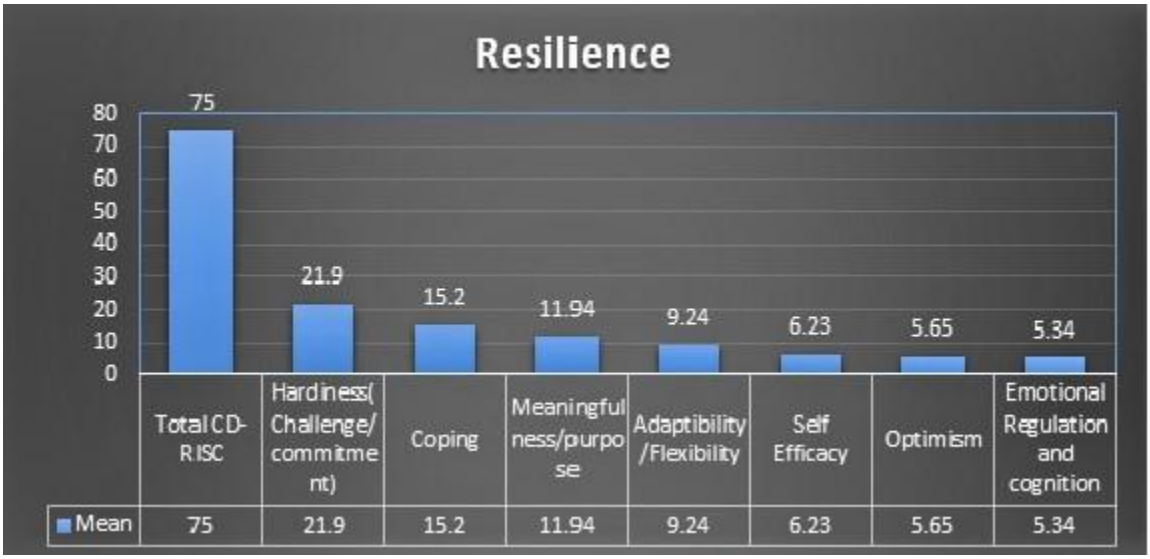
Duration of Duty Hours/Day	**8 hours/day**	**39(70%)**	**15(27%)**	**2(3%)**	**56**	**0.05**
	12 hours/day	**14(41%)**	**20(59%)**	**0(0%)**	**34**	
Frequency of Rotations/Month	**Every Alternate Fortnight**	**39(70%)**	**15(27%)**	**2(3%)**	**56**	**0.05**
	Every Alternate Week	**14(41%)**	**20(59%)**	**0(0%)**	**34**	

Images and Tables





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Discussion

Around 90 doctors posted in COVID Positive ward of one of the Government Hospitals of Gujarat were enrolled in the study through Google form, who gave informed consent through it. Since December, 2019, COVID 19 pandemic has led to an increase in physical as well as mental health problems. The Health care workers who have been working in these tough situations are more vulnerable to such mental health problems. Researchers have studied that Resilience and Spiritual health has always played a great role in dealing with such mental health problems. One study showed that doctors with good spiritual health give better clinical care and are more empathic towards their patient. It hastens patients' health. Patient feels more comfortable and which indirectly improves doctor patient relationship [18]. There have been few studies done which show that spirituality and resilience are two important contributing factors to mental health. With this background, we conducted this study to evaluate correlation of psychological well-being with Spirituality and Resilience.

In the present study, it was found that more than half of the total study population had high Psychological well-being. The most important finding was a positive and significant correlation of resilience and spirituality with psychological well-being. It was also found that resilience contributed more to psychological well-being than spirituality. This could be because of other factors that affect resilience and indirectly psychological well-being like gender, coping style, personality traits, occupational role, education level etc.

It was also found that amongst doctors having high psychological well-being, female doctors were more as compare to male doctors, though this difference was not statistically significant. Similar findings have been seen in M Madhuchandra, N Srimathi (2016) study which showed no significant difference for Gender comparison on over all psychological well-being [19].

Compared to doctors from clinical core branches, doctors from clinical noncore branches and Para clinical branches were found to have high psychological well-being though it was not statistically significant. This could be because of the resident doctors who are on frontlines of this epidemic and are dealing with dreadful events like death of patients during ICU stay are facing more stress and are more prone to psychological problems. These results are consistent with recent studies conducted in China [20,21].

In the present study, we found significant difference among different years of residency for high psychological well-being. Doctors from 1st year residency and third year residency were found to have higher psychological well-being. The reason behind high psychological well-being among 1st year residents could be because 1styear residents being in their initial phase of residency, they get more guidance and support from seniors and comparatively

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have less responsibility. The reason behind high psychological well-being among 3rd year residents could be because greater clinical experience and more skills in dealing with negative events like deaths, mass casualties etc. during their three years of residency.

In the present study, it was also observed that doctors who were working for less than 12 hours per day and who had less frequent rotation were having high psychological well-being compared to those doctors who were working for 12 hours and had more frequent rotation though the difference was not statistically significant. Similar findings have been seen in the previous study done on medical staff in emergency department in China during Corona virus epidemic [22].

Results also showed significant difference for high resilience among different specialties. Compared to doctors from clinical core branches, doctors form clinical noncore branches and Para clinical were found to have higher resilience. Somewhat similar findings have seen in McKinley N, McCain RS, Convie L, et al. (2019) study which showed that doctors from NHS frontline namely general medicine and emergency medicine department were more exhausted, more stressed, compassion fatigued and had low resilience [23]. The reason may lie in differences in different specialties could be individual coping style, individual personality traits, individual pattern of dealing with negative events etc.

Another interesting and significant finding we found in the study was related to differences among duration of duty hours/day and frequency of rotations/month. It was found that doctors with less duration of duty hour/day (i.e. 8 hours/ day) and less frequent rotations/month (i.e. every alternate fortnight) were found to have higher resilience as compared to doctors with 12 hours of duty/day and more frequent rotations (i.e. every alternate week/month). The reason behind high resilience amongst doctors with less duration of duty hours and less frequent rotation could be that they get less exposure to negative events, could get more time for ventilation, more time to cope with their stress by different means like mindfulness, other creative activities, yoga, physical exercise etc.

In the current study, it was also found that male doctors were found to have higher spiritual health as compared to female doctors though not statistically significant. No comparable study found for the same. Reason of differences in spiritual health among different gender could be different gender role, individual perspective and beliefs.

We also found significant difference in spiritual health among different specialties. We found that compared to doctors from clinical core branches, doctors from Para clinical and clinical noncore branches had better spiritual health. It could be because doctors from clinical noncore and para clinical branches were getting less frequent rotational duties in COVID positive wards and were getting more time for their own self which may direct them towards recreational activities like thinking about own self, others, connecting oneself with nature by yoga, meditation etc.

It was found that doctors with less frequent rotation and less duration of duty hours had significantly better spiritual health as compared to doctors with having frequent rotation and 12 hours of duty/day. The reason could be individual perspective and beliefs, getting more time for recreational activities etc.

Conclusion

1. Among doctors posted in COVID positive wards, psychological wellbeing, resilience and spiritual mental health were significantly and positively correlated.
2. Doctors from 1st year residency were found to have higher psychological well-being followed by third year residents and then second year residents.
3. Doctors form clinical noncore branches and Para clinical were found to have higher resilience and better spiritual health as compared to doctors from clinical core branches.
4. Doctors with less frequent rotations and less duration of duty hours were found to have higher resilience and better spiritual health(p,0.05) as compared to doctors with more frequent rotations and 12 hours of duties/ day having high resilience.

Future Implication

1. There is a need for preparedness for such disaster with building up of resilience and

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spiritual health by different means of training like providing authentic knowledge about such disaster, training to strengthen resilience by focusing on different coping strategies, training to improve spiritual health by involving doctors in recreational activities like yoga, mindfulness, meditation etc.

2. It is required to focus on an overall well-being of an individual rather only focusing on physical or mental well-being.

Limitations

1. In our study, the main limitation was small sample size. So, these results can't be generalized to the general population.
2. Not all the doctors posted in COVID positive wards were enrolled.
3. We collected this data by means of Google form, so only specific data was collected. Qualitative data couldn't be collected because of virtual data collection.
4. The cross-sectional nature of this study limits our understanding of the associated factors of psychological well-being which suggests that longitudinal studies are further needed for this purpose.
5. This study was conducted during high peak time of COVID-19 cases and only for those who were posted in COVID positive wards. No comparative study was done with resident doctors working in Non COVID wards.
6. This study does not include the entire health professional with different occupations like nurses, other para medical staff and other health care workers.

References

1. Springer Nature Switzerland AG 2019 D. Huremović (ed.), Psychiatry of Pandemics, https://doi.org/10.1007/978-3-030-15346-5_1
2. Ivbijaro G, Brooks C, Kolkiewicz L, Sunkel C, Long A. Resilience, mental wellbeing and the coronavirus pandemic. Indian J Psychiatry 2020; 62:S395-403.
3. Pinto, Charles & Kulkarni, Kapil & Dave, Malay & Rawat, Jagdeo. (2013). Psychological general well being and satisfaction with life among doctors of tertiary care hospital in India: A cross sectional study Charles Pinto, Kapil Kulkarni, Malay Dave, JP Rawat. Indian Journal of Health and Well Being. 4. 1632-1636.
4. J. Levin (*) Department of Psychiatry, North Shore University Hospital, Manhasset, NY, USA, D. Huremović (ed.), Psychiatry of Pandemics,https://doi.org/10.1007/978-3-030-15346-5_11
5. Springer Nature Switzerland AG 2019 D. Huremović (ed.), Psychiatry of Pandemics, https://doi.org/10.1007/978-3-030-15346-5_10
6. Lu YC, Shu BC, Chang YY, Lung FW. The mental health of hospital workers dealing with severe acute respiratory syndrome. Psychother Psychosom. 2006; 75(6):370–5.
7. American Psychology Association: The road to resilience [EB/OL]. 14 Nov 2011. http://www.apa.org/helpcenter/road–resilience.aspx
8. Wang W, Tang J, Wei F: Updated understanding of the outbreak of 2019 novel coronavirus (2019–nCoV) in Wuhan, China. J Med Virol, 2020; 92(4): 441–47
9. Maunder RG, Leszcz M, Savage D, et al. Applying the lessons of SARS to pandemic influenza: an evidence–based approach to mitigating the stress experienced by healthcare workers. Can J Public Health, 2008; 99(6): 486–88
10. Bozdağ, F., & Ergün, N. (2020). Psychological Resilience of Healthcare Professionals during COVID-19 Pandemic. Psychological Reports. https://doi.org/10.1177/0033294120965477
11. D'Souza R. The importance of spirituality in medicine and its application to clinical practice. Med J Aust. 2007 May 21;186(S10):S57-9. PMID: 17516886.
12. Kusum Lata Gaur and Mahesh Sharma. Measuring Spiritual Health: Spiritual Health assessment Scale (SHAS). IJIRD vol. 3 Issues 3 March 2014 P 63-67.
13. World Health Organization. The determinants of health. Geneva. Accessed 12 May 2011 http://www.who.int/hia/evidence/doh/en/

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14. Deborah Cornah,The impact of spirituality on mental health-A review of the literature, July, 2006

15. Ryff, C. D. (1989). "Happiness is everything, or is it? Explorations on the meaning of psychological well-being". Journal of Personality and Social Psychology. 57 (6): 1069–1081. doi:10.1037/0022-3514.57.6.1069

16. Connor, K.M., & Davidson, J.R.T. (2003). Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC). Depression and Anxiety, 18(2), 76-82. doi:10.1002/da.10113

17. Kusum Lata Gaur and Mahesh Sharma. Measuring Spiritual Health: Spiritual Health assessment Scale (SHAS). IJIRD vol. 3 Issues 3 March 2014 P 63-67.

18. Puchalski CM. The role of spirituality in health care. Proc (Bayl Univ Med Cent). 2001;14(4):352-357. doi:10.1080/08998280.2001.11927788

19. M Madhuchandra, N Srimathi (2016), Psychological Well-being among Doctors and Nurses: A Comparative Study, International Journal of Indian Psychology, Volume 3 (4),DIP: 18.01.212/20160304,DOI: 10.25215/0304.212

20. Liu Z, Han B, Jiang R, et al. Mental health status of doctors and nurses during COVID-19 epidemic in China. SSRN Electron J [internet] 2020. http://dx.doi. org/10.2139/ssrn.3551329. Accessed April 19, 2020.

21. Liu X, Kakade M, Fuller C, et al. Depression after exposure to stressful events: lessons learned from the severe acute respiratory syndrome epidemic. Compr Psychiatry 2012; 53(1): 15–23.

22. X. Song, W. Fu, X. Liu, Z. Luo, R. Wang, N. Z hou, S. Yan, C. Lv**Mental health status of medical staff in emergency departments during the Coronavirus disease 2019 epidemic in China ;**Brain Behav. Immun., 88 (2020), pp. 60-65, 10.1016/j.bbi.2020.06.002

23. McKinley N, McCain RS, Convie L, et al Resilience, burnout and coping mechanisms in UK doctors: a cross-sectional study;BMJ Open 2020;**10:**e031765. doi: 10.1136/bmjopen-2019-031765.

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