Annals of Clinical Medicine and Research

Research Article
Published: 11 Dec, 2020

Examining Nurses' Wellbeing While Caring for the Elderly in Pneumonia-Acute Respiratory Infection (PARI) Ward

*Barrera Vivian, Sigaya Kenneth Villan, Espeleta Wrenzie Del Valle, Tanya Quicho and Si Ching Lim**

Department of Geriatric Medicine, Changi General Hospital, Singapore

Abstract

The requirement of single isolation rooms during the COVID-19 pandemic proved to be a different work environment for the care staff taking care of the vulnerable elderly patients. In order to minimize infection risk, contact between the care staff and patients were kept to the minimum and the patients were put on physical restraints to reduce fall risks while they remained in their rooms. The effects of this enforced immobility; social isolation and loneliness on the elderly patients were felt to be deleterious on the patients by the staff working in the ward. The staff faced additional challenges and stress having to work in an unfamiliar environment with new rules and some experienced burn out with thoughts of resignation.

Keywords: COVID-19 pandemic; Elderly; Hospital fall; Social isolation; Burnout

Introduction

The Novel Coronavirus 2019 (COVID-19) was first reported from Wuhan, China in December 2019. The virulent virus causes respiratory tract infection ranging from a mild flu like upper respiratory infection to a severe lower respiratory infection with a high mortality. The clinical features associated with COVID-19 include generalized myalgia, headache, rash, conjunctivitis, sore throat, diarrhea, loss of taste/smell, flu-like symptoms which may progress to worsening shortness of breath, chest pain, pneumonia, respiratory failure and death. COVID-19 is diagnosed by detecting the presence of SARS-CoV-2 by PCR testing of a nasopharyngeal swab [1,2].

The first confirmed case of COVID-19 in Singapore was reported towards the end of January 2020 and the cases were initially imported from overseas travelers. Local transmission began in February 2020 and by early April 2020; the Singapore Government announced a series of measures in order to contain the spread of COVID-19 cases in the community. These measures were termed Circuit Breaker (CB) [3].

As the number of COVID cases increase rapidly worldwide, the frontline medical staff work round the clock, often with limited resources, and most reported working under great physical and psychological stress. The working conditions in most of the hospitals worldwide face shortages of medical supplies, manpower and Intensive Care Unit (ICU) beds, while the staff struggle with their own anxiety of taking care of the highly infectious and sick patients without a cure or vaccine in the horizon.

In the author's hospital, the older adults who presented with fever with or without respiratory symptoms who needed hospitalization were admitted to the Integrated Building to be isolated in the Pneumonia-Acute Respiratory Infections (PARI) ward. The patients typically stayed for a maximum of 48 h while waiting the results of 2 COVID swab tests. Once the results came back negative, they will be decanted to the general wards for further care. The positive cases remained in the PARI ward until they were fit for discharge. The PARI ward was designed exclusively for use during a pandemic. The ward consists of 8 isolation rooms, equipped with negative pressure ventilation with double entrance doors. The staff is mandated to don full Personal Protection Equipment (PPE) with N95 mask, gloves, and goggles for eye protection, face shield and protective gown prior to entering the rooms. De-gowning is to be done prior to exit with strict hand washing protocol with proper disposal of the soiled PPE. The double doors will not open until the inner one is properly shut to ensure minimal exchange of air between the common ward environment and the patients' room environment. The staff were instructed to stay for as short period of time as possible in the rooms with the patients.

OPEN ACCESS

Correspondence:
Si Ching Lim, Department of Geriatric Medicine, Changi General Hospital, Singapore,
E-mail: lim.si.ching@singhealth.com.sg

Received Date: *13 Nov 2020*
Accepted Date: *07 Dec 2020*
Published Date: *11 Dec 2020*

Citation:
Vivian B, Villan SK, Del Valle EW, Quicho T, Lim SC. Examining Nurses' Wellbeing While Caring for the Elderly in Pneumonia-Acute Respiratory Infection (PARI) Ward. Ann Clin Med Res. 2020; 1(4): 1017.

The PARI ward opened for the first time serving the current COVID pandemic, with no prior experience of nurses taking care of the febrile elderly in their single isolation rooms under such strict conditions. This paper aims to examine the effect of social isolation and loneliness among the elderly in their single isolation room, albeit for a short 48 h and the threats the nurses faced while working in the isolation ward taking care of them.

Social isolation and loneliness among the elderly are associated with poor health [4]. Research has linked social isolation and loneliness to higher risks for a variety of physical and mental conditions such as heart disease, high blood pressure, weakened immune system, obesity, anxiety, depression, cognitive decline, Alzheimer's disease and even death [5].

Methods

There were 17 staff working full time in the PARI Ward. The staff list included registered, enrolled nurses and patient care assistant. A questionnaire was created to enquire about the unique working condition in the PARI ward, examining the stress levels and risk of burn out. Data collected included the years of working, gender, country of origin. Verbal consent was obtained prior to answering the survey forms and the staff were not under any duress should they choose not to participate in the study.

At the point of the survey, the PARI ward had been operational for 6 months, and staff turnover was low as they were seconded to work in this temporary service during the pandemic. The patient turnover was rapid, with changeover every 48 h. All the patients were above 80 years of age, admitted from the community and institutions. The diagnosis for fever included lower respiratory infections, aspiration pneumonia, community acquired pneumonia, urinary tract infection and hepatobiliary sepsis. There were only 2 positive cases for COVID and both were stable and discharged well. Descriptive statistics were used for data analysis.

Early in the operation of the PARI ward, there were 2 falls reported with serious consequences. Both the elderly patients fell from bed, in their own room. One of the patients sustained quite extensive facial bone fractures while the other patient sustained a wrist fracture. Following these fall incidents, the senior staff were advised to loosely restrain the elderly patients with cognitive impairment using body vests for their safety as the nurses are not able to provide immediate attention. The senior nurses in the PARI ward were previously working in the hospital's dementia ward where it was a strict no restraint policy environment, and adopted the person centered care model where the patients' physical and psychological needs are prioritized. This policy came as a relief for some of the nurses, while causing distress to the more senior staff as it goes against their usual practice.

Results

All the PARI ward staff of 17 participated in the survey; all 17 were female and working full time. Participants were mainly from Singapore (41.2%), with the rest from the Philippines (35.3%), Malaysia (17.7%) and India (5.9%). Their age ranged from 25 to 65. Most of the staff (41%) was in the 25 to 35 age brackets. Over half the staff were single (58.8%). Most of the staff (64.7%) had been working in PARI ward since it opened. The demographics of the respondents are shown in Table 1 and Table 2.

Thirty-three percent of the nurses assigned to PARI ward reported feeling more stressed compared to their usual workplace. The worrying expression of burnt out (35.3%) and feeling unsafe (11.8%) although low was unhealthy and there were thoughts of resigning among 35% of the staff. The staff felt they were obligated to work in PARI ward (4%) and 18.7% worried they were likely to get infected with the coronavirus since the ward housed the fever cases. Nurses also reported that they were worried about their family's safety since they started working in PARI (35%).

Table 1: PARI ward Staff's demographics.

		Frequency	Percent
Country of Origin	Foreign	10	58.82
	Singapore	7	41.18
Number of years in Nursing	<3 years	1	5.88
	>3 years to 7 years	7	41.17
	>7 years to 11 years	9	52.94
Age Group	18-45	14	82.36
	46-65	3	17.64
Months Working in PARI	<6	6	35.29
	Ø 6	11	64.71

Comparing the foreign workers and the local Singaporeans, equal proportion of staff reported burn out and worries for the safety of their family. The foreign staff were more likely to feel obligated to work in this unusual environment with more frequent thoughts of resignation compared to locals (24% *vs.* 12%), but the difference did not reach statistical significance (P=0.356).

The nurses were worried about their patient's safety (67%). Over half the staff (56%) felt that their patients' safety was compromised as they were left alone in their individual isolation rooms. The nurses also felt that the patients got more confused with frequent episodes of delirium in their own room (65%). The elderly patients with dementia and behavioral symptoms were felt to have worsened with increased agitation (50%). The staff (76%) thought that loneliness was the leading cause of worsening behavioral symptoms. Over 60% of the nurses felt that the patients looked unhappy and were getting sad and depressed in their isolation rooms.

The nurses were told to restrict their frequency of contact with the patients to reduce infection risk. Hence, all the patients were put on diapers, and in doing so, 53% of the nurses felt that the patients were not used to having to perform their elimination in bed or having to bear the discomfort with wearing diapers. To curb the risk of infection, the staff was to attend to the patients only for essential tasks. The nurses felt that their patients were not getting enough stimulation (83%), and were getting weaker. For the elderly patients who were previously independent, the staff (12%) felt that the patients had physically deconditioned while they stayed in their isolation rooms albeit for the short 48 h.

Despite the restricted contact, the nurses felt the elderly patients had enough to eat and drink for their meals, since the nurses made it a point to enter the rooms to provide assistance during mealtimes and prompted the patients to drink at every contact. The nurses (76%) felt the patients' sleep was not affected during their stay.

On patient's care, the nurses felt the urge to restrain patients in 44% of the cases due to the risk of falls, and more importantly because the nurses felt they were unable to attend to the patients fast enough

Table 2: Data collected from PARI ward staff.

	NO	YES
I feel more stressed working in PARI compared to my usual workplace	12	5
	70.60%	29.40%
I feel burnt out from my work	11	6
	64.70%	35.30%
I feel obligated to work in PARI ward	13	4
	76.50%	23.50%
I feel unsafe working in PARI ward	15	2
	88.20%	11.80%
I thought about quitting in PARI ward	11	6
	64.70%	35.30%
I feel I am likely to get Coronavirus (Missing 1)	13	3
	81.30%	18.80%
My patients are not happy being in isolation rooms	6	11
	35.30%	64.70%
I worry about my patients' safety (Missing 5)	4	8
	33.30%	66.70%
I feel my patients are unsafe in isolation room (Missing 1)	7	9
	43.80%	56.20%
My patient falling from bed in their isolation room	7	10
	41.20%	58.80%
My patients not getting enough to eat and drink (Missing 1)	16	0
	100%	
My patients are not getting enough sleep at nights	13	4
	76.50%	23.50%
My patients are getting more confused or delirious in their own room	6	11
	35.30%	64.70%
My patients' BPSD has worsened (Missing 1)	8	8
	50%	50%
My patients are lonely in PARI ward	4	13
	23.50%	76.50%
My patients are getting sad and depressed in PARI ward	6	11
	35.30%	64.70%
My patients not getting used to elimination in bed, having to wear diaper	8	9
	47.10%	52.90%
My patients are not getting enough stimulation in the day, just lying in bed	3	14
	17.70%	82.30%
My patients are getting weaker and deconditioned in their isolation room, compared to pre morbid	15	2
	88.20%	11.80%
I feel the urge to restrain my patient (Missing 1)	9	7
	56.30%	43.70%
I have restrained my patient as a cause of fear from patients falling from their beds	5	12
	29.40%	70.60%
I wish to spend more time doing activities with them to calm them down	8	9
	47.10%	52.90%
I wish to spend more time tending to the patients, to reassure and comfort them	8	9
	47.10%	52.90%

I worry about my patients' safety (Missing 5)	4	8
	33.30%	66.70%
I feel my patients are unsafe in isolation room (Missing 1)	7	9
	43.80%	56.20%
I worry about my family's safety since I started work in PARI	11	6
	64.70%	35.30%
I worry even more for my family abroad for their safety and health	9	8
	52.90%	47.10%

to stop the falls since there was a strict order to reduce contact with patients. The nurses (71%) had put on physical restraints for the elderly with cognitive impairment due to either delirium or dementia or both. The nurses seconded to the PARI ward from the non-Geriatric wards felt that restraining the elderly to reduce fall risk was reasonable since they were worried about getting infected by COVID. However, about 53% of nurses reported they wished to spend more time doing activities with their patients to calm them down in the unfamiliar environment and they thought if they had spent more time tending to them, reassuring and comforting them, their behavioral symptoms and disorientation would not have worsened.

The authors were encouraged to learn that the nurses were not feeling more stressed or unsafe or had frequent thoughts about resigning nor burnt out while they were assigned to work in the PARI ward. This observation was regardless of the duration of secondment in PARI ward and neither was there a correlation between the negative thoughts with age or work experience, or whether the staff was a local or a foreign worker.

All the care staff felt unsafe for the patients in their isolation rooms, for the fear of falling, again, regardless of the country of origin, age, number of years of experience or the duration of working in the PARI ward.

Discussion

The COVID pandemic is indeed an unusual time for most people globally, having to cope with the fear of infection and adapting to the changes in lifestyle imposed by the government to curb spread of infection. The healthcare system has been put under enormous strain due to the huge number of cases needing medical attention and ICU care. For the frontline healthcare workers, they face the extra challenges of having to cope emotionally seeing their patients dying from the infection. In addition, they struggle with the anxiety and fear of contacting the disease themselves or bringing the infection back with them to their loved ones at home [6].

Burnout among health care professions is a significant problem in healthcare establishments and has negative implications on clinical outcomes. The prevalence of burnout among US registered nurses ranges from 35% to 45% during the COVID pandemic [7]. A study done on looking at factors associated with burn out among health care professionals during this pandemic showed that work had a negative impact on household activities, a feeling of pushed beyond their professional training, risk of getting infected by COVID-19. Some began to make major life changing decisions while they face the looming thoughts of death at work, observed as a trend in high-income countries compared to low- and middle-income countries [8].

In Singapore, a study conducted among nurses in community hospital found that burnout was common among a third of the nurses, which was comparable to that of a highly specialized tertiary hospital. Other factors associated with burn out included higher number of years working as a nurse, and whether their work interfered "sometimes" & "often" with family commitments to be significantly associated with burnout. Nurses' working in the rehabilitation ward has higher odds of burn out [9]. A global survey on burn out among healthcare professions during the COVID pandemic, burn out is present at a higher than previously reported rates and is related to workload, job stress, time pressure and limited organizational support [10]. In this study, staff were seconded to work in the PARI ward, having been selected from the various wards in the hospital. The senior nurses taking charge were from the dementia ward under the Geriatric Medicine. The burn out rate was reported at 35%, with over 70% expressed feeling more stressed working in the new environment compared to their usual work environment.

A study published in "Research and Nursing Health" studying 53,846 nurses across six countries, discovered that higher levels of caregiver burn out were significantly associated with lower quality of care [11]. The authors were glad to see the PARI ward closing after 6 months of service once the community cases dwindled to a handful per day, as the infection was kept under control. If the ward were to continue service, should there be a second wave of infection in Singapore, the outcome would be disastrous for both the staff and the elderly patients. The frail elderly patients with cognitive problems, especially those with behavioral symptoms would be restrained for their safety while they are nursed in their own isolation room.

The Centre for Disease Control recommended that contact precautions for suspected COVID cases should include isolation in single rooms, with full personal protective equipment for all patient contacts or contacts with potentially contaminated environmental areas [12]. In addition to the above, the author's hospital discouraged prolonged periods of contact between the staff and patients in their isolation rooms, unless it is essential. The allowance for entering the isolation rooms included checking parameters and in the case for caring for the elderly, the ward made special allowance to allow the staff to attend to their patients during mealtimes to offer assistance since most of the elderly patients had aspiration risks and needed assistance with feeding. The nurses were also allowed to attend to the elderly patients for their ADLs since most of them required assistance. The limited contact is unusual for the nurses seconded from the Geriatric wards as they are more accustomed to spending most of their shift attending to the patients' physical as well as their psycho emotional needs, especially for the elderly persons with dementia. The limited nursing contact further imposes the sense of social isolation and loneliness in the isolation rooms. For the senior charge nurses seconded from the Dementia ward, the rapid patient turnover was also a challenge as they were not able to practice person

centered care to manage their patients' behavioral symptoms as there was no time in trying to get to know their patients better.

Social isolation and loneliness has a deleterious effect on the older adults, both of which frequently co-occur and are common in elderly. Loneliness refers to subjective feelings of being alone, while social isolation is defined as a state of lack of contact between individual and society. Loneliness can be felt by the individual even if there are others around them. Studies suggested that while loneliness and social isolation are not equal to each other, both can exert a detrimental effect on health [13]. Social isolation had been linked to higher blood pressure, greater susceptibility to flu, infectious diseases and earlier onset of dementia [14]. In this study, patients isolated in their own rooms were observed to be feeling lonely, sad and depressed. The social isolation resulted in worsening of behavioral symptoms, delirium and falls, even for a short stay of 48 h. A systematic review conducted on elderly patients who were isolated to contain the risk of infection showed negative consequences for segregated patients, with a wide range of poor psychological and non-psychological outcomes. There is a marked increase in trend of heightened depression and anxiety. There was also an association with delirium for those in isolation [15].

Conclusion

The challenges faced by the staff working in the isolation ward in PARI posed an extra set of new challenges during this pandemic. The elderly patients in their own isolation rooms faced the threats of hospital associated complications like delirium, incontinence, falls, depression, under nutrition and functional decline. The isolation ward imposed strict limits on contact with patients to minimize contact and in doing so, caused stress to both the patients and their care staff. The staff faced higher risk of burn out due to the anxiety of infection and worries about their patients' safety and well-being. The isolation room limited the practice of person centered model of care which is proven to be beneficial, especially the elderly with cognitive issues. Instead they are being restrained physically to reduce fall risks.

References

1. WHO. Int. Novel Coronavirus-disease 2019.
2. Wei-jie G, Zheng-yi N, Yu H, Wen-hua L, Chun-quan O, Jian-xing H, et al. Clinical characteristics of coronavirus disease 2019 in China. N Eng J Med. 2020;382:1708-20.
3. Ministry of Health.
4. York Cornwell E, Waite LJ. Measuring social isolation among older adults using multiple indicators from the NSHAP Study. J of Gerontol: Series b. 2009;64B(suppl 1):i38-i46.
5. National Institute on Aging. Social isolation, loneliness in older people pose health risks. 2019.
6. Bacher R. Health care workers face anxiety and stress fighting. COVID-19. AARP.
7. Janeway D. The role of psychiatry in treating burnout among nurses during the COVID-19 pandemic. J Radiol Nurs. 2020;39(3):176-8.
8. Morgantini LA, Naha U, Wang H, Francavilla S, Acar O, Flores JM, et al. Factors contributing to healthcare professional burnout during the COVID-19 pandemic: A rapid turnaround global survey. 2020.
9. Yi Tay W, Earnest A, Yun Tan S, Ming Ng MJ. Prevalence of Burnout among nurses in a community hospital in Singapore: A cross - sectional study. Proceeding of Singapore Healthcare. 2014;23(2):93-9.
10. Morgantihi LA, Naha U, Wang H, Francavilla S, Acar O, Flores JM, et al. Factors contributing to healthcare professional burnout during the COVID-19 pandemic: A rapid turnaround global survey. J Plos Org Open Access. 2020.
11. Poghosyan L, Clarke SP, Finlayson M, Aiken LH. Nurse burnout and quality of care: Cross-national investigation in six countries. Res Nurs Health. 2010;33(4):288-98.
12. Centers for Disease Control and Prevention. Transmission-Based precautions | basics Infection control.
13. Tzung-Jeng H, Kiran R, Carmelle P, William R, Manabu I. Loneliness and social isolation during the COVID-19 pandemic. Int Psychogeriatr. 2020;1-4.
14. Frank D. The danger of social isolation. How to spot it, fight it and prevent it. AARP. 2018.
15. Purssell E, Gould D, Chudleigh J. Impact of isolation on hospitalized patients who are infectious: Systematic review with meta-analysis.