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Fighting the COVID-19 pandemic: A socio-cultural insight into Pakistan

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Abstract

During the COVID-19 pandemic, healthcare professionals around the world were driven by universal values of solidarity and duty to provide care. However, local societal norms and existing healthcare systems influenced interactions among physicians, and with patients and their families. An exploratory qualitative study design using in-depth interviews was undertaken with physicians working at two public sector hospitals in Karachi, Pakistan. Using the constant comparison method of data analysis, several key themes were identified highlighting norms of kinship and interdependencies characteristic of collectivistic societies that influenced professional interactions. The role of seniors in the hierarchical society of Pakistan played a major role in provision of care. Physicians reported numerous challenges in dealing with patients and their families amidst public denial fueled due to ill-formed government policies. This included interruption of funeral rites which undermined public trust. The study provides insights into the local moral world of two healthcare institutions in Pakistan.

KEYWORDS
collectivism, COVID-19 pandemic, kinship, Pakistan, physicians, South Asia

> "It may be in the cultural particularities of people — in their oddities — that some of the most instructive revelations of what it is to be generically human are to be found".
>
> **Clifford Geertz**

1 | INTRODUCTION

The COVID-19 pandemic has been a collective tragedy at various levels which has highlighted the social values and mores embedded in different societies. These can influence personal interactions occurring between frontline healthcare professionals and with patients and their families. The pandemic has provided insights into how illness is collectively experienced, the role of religious beliefs in shaping social behavior, particularly coping mechanisms, and the ways in which socio-political structures can influence decision-making processes in the medical sphere. In this article, we use an anthropological perspective to illustrate the evolution of the pandemic in the low-middle-income country of Pakistan in South Asia by exploring perspectives of frontline physicians providing COVID-19 related healthcare at two specialized tertiary care hospitals.

The first case of COVID-19 was reported in Pakistan on February 26, 2020. The disease spread rapidly all over the country, with 6200 people affected and 111 deaths reported within the first seven weeks.[1] With a population of more than 200 million people, and a per capita expenditure on health of 3.4%, Pakistan's healthcare system

[1]Ilyas, N., Azuine, R. E., & Tamiz, A. (2020). COVID-19 pandemic in Pakistan. International Journal of Translational Medical Research and Public Health. 4(1), 37-49.

was not equipped to deal with the disease.[2] Amidst exponential growth in the number of cases from March 10, 2020 until mid-May 2020 and a limited number of healthcare facilities providing COVID-19 treatment, the healthcare system was overwhelmed.[3] Moreover, in the beginning, COVID-19 services in Pakistan were provided primarily by the private sector, the cost of which was beyond the reach of most people in a country where almost a third of the population lives below the poverty line.[4]

COVID-19 related research has been conducted in various contexts. The lived experiences of physicians have also been recounted in various international publications.[5,6,7] Studies have documented the psychological toll on healthcare professionals as mortality rates increased.[8,9] Literature from the developing world has also provided insights. Dealing with resource scarcity and the fear of an unknown disease were prominent aspects from qualitative inquiries conducted in Nigeria and Indonesia.[10,11] In the collectivist society of India, where interaction with family members is considered an important aspect of daily life, lockdown measures seemed harsh. In addition, many healthcare workers (HCWs) who were struggling with immense emotional challenges turned to religious methods of coping.[12] In the largely Muslim society of Oman, HCWs experienced negative emotional effects due to the interruption of funeral rites and the inability to pray in mosques.[13]

While the majority of studies that emerged from Pakistan were quantitative surveys, several studies comparing psychological distress between healthcare workers and non-healthcare workers revealed that HCWs were at a higher risk for stress than the general population.,[14,15] Qualitative investigations from Pakistan reveal similar experiences of HCWs with the rest of the world. Conducted in five COVID-19 designated public sector hospitals, interviews showed an absence of psychological and emotional support leading to increased anxiety and fears.[16] Feroz et al (2021) conducted interviews at a private hospital in Karachi, Pakistan, which demonstrated that the scarcity of resources was mitigated quickly due to the state-of-art equipment available at the facility.[17]

The current study focuses on two public sector hospitals which even under normal circumstances operate under situations of acute scarcity. Moreover, it seeks to provide an insight into the sociocultural values of Pakistani society through exploration of lived experiences of one segment of HCWs, prominently physicians providing direct care to COVID-19 physicians. We believe that various religious and social factors modulated responses of physicians during the pandemic. Thereby, using anthropological lens, we provide a glimpse into the value systems influencing the seeking and delivery of healthcare in Pakistan.

2 | METHODS

We used the interpretive social sciences framework to capture the subjective experiences of participants at two public sector institutions utilizing an exploratory qualitative research design.

2.1 | Study context

The study was conducted in Karachi, the largest city of Pakistan, with an estimated population of more than 20 million. Although Pakistani society is diverse and not monolithic, by and large, it is a collectivistic society with hierarchical norms that characterize relationships between individuals. Despite rapid urbanization, households often live together in joint-family systems (with more than two generations under one roof). Muslim beliefs and religious traditions are a prominent aspect in the lives of Pakistanis.

Pakistan is a country of various paradoxes; while a substantial number of the population lives below the poverty line with limited access to healthcare services, there are mega tertiary care hospitals providing specialized services. The medical profession is still accorded a high degree of "nobility" but over the years, trust in the public sector appears to be eroding.[18]

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2.2 | Study setting

We situated ourselves in two public sector tertiary healthcare institutions. The first institute (referred to as Institute A) provides treatment free of cost through a joint model of government and community funding through donations and *Zakaat* (obligatory yearly charity for Muslims). The hospital, established for more than 40 years, provides specialized services primarily in the field of dialysis and renal transplantation but has over the years expanded into other areas including but not limited to internal medicine, liver transplantation, general surgery, gastroenterology, ophthalmology, and oncology. The second institute (referred to as Institute B) is also in the public sector and is a specialty center in the fields of trauma and emergency. This government-funded institute was established in 2016 and caters to a large volume of patients free of cost.

Institute A started providing COVID-19 related healthcare in mid-March 2020, initially starting with PCR testing and outpatient clinics. It admitted its first COVID-19 patient at the beginning of April 2020. A dedicated isolation facility was set up, along with a 16 bed High Dependency Unit (HDU) and 13 bed Intensive Care Unit (ICU). Staff was diverted from other specialties to provide care with equipment and medications procured initially by the institute itself. Over time, the institute received support from the government when the country received international assistance in the form of protective equipment, medications and so forth.

In contrast, Institute B was mandated by the government to start providing COVID-19 care in early March 2020. This was at a time when other public hospitals were no longer accepting patients due to resource shortages. COVID-19 facilities in Institute B included a 24 bed ICU and 28 bed HDU. Moreover, in order to bolster the workforce, the government deployed young physicians, fresh out of undergraduate medical college, to assist specialized consultants. Government funding was directed to install negative air pressure in ICUs to curtail disease spread. Support from the government also came in the form of provision of medications.

Following government directives, for a period of several weeks, all elective medical work was halted and both institutes only provided COVID-19 care. With the first wave of COVID-19 subsiding by end of June 2020, regular medical work resumed. However, pandemic-related care continued.

2.3 | Operational definitions

Consultants: experienced specialists in their fields including infectious diseases, anesthesiology and critical care.

Fellows: individuals receiving specialized training in the aforementioned fields.

2.4 | Participants' selection and recruitment

Our sample included consultants and fellows involved in direct medical management of COVID-19 patients. Consultants were chosen due to their role in critical medical decision-making within the institutional hierarchy. Fellows were included since they were heavily involved in patient management.

Approval was provided by the Ethical Review Committees at both institutes. Participants were recruited through convenience and snowball sampling. Key individuals at each institute were asked to recommend potential interviewees, who were then approached first via a text message followed by a phone call. Only one potential interviewee refused to participate citing lack of time as the reason.

2.5 | Data collection process

Twelve in-depth interviews were conducted, six in each institute. Interviews took place primarily in September 2020 after the first wave of COVID-19 in Pakistan, which infected 332,186 individuals, resulted in 6795 deaths, and left 632 patients on ventilators, had ended.[19] Interviews were conducted in a mix of English and Urdu (the national language of Pakistan) by all three authors. Two authors are also physicians which may have led to more candid discussions. All three authors have varying degrees of experience of conducting qualitative research.

Before initiating each interview, participants were asked for their verbal consent after an explanation of the purpose of the study, with specific permission for audio-recording. Participants were assured of anonymity with regards to their personal identity and that of their institution. The interviews, which lasted for approximately 45 minutes to over an hour, took place physically with social distancing protocols in place.

A semi-structured interview guideline prepared for this study was used that encouraged physicians to share their lived experiences in area of interactions with patients and family members. Contextual factors relevant to their respective institute were also explored to add depth to the data set. The interview guideline was piloted on two physicians who were not part of the study population. All interviews were recorded on a smartphone and later transferred to an office computer. Data was transcribed verbatim by an office secretary, and verified by Sualeha Shekhani. Urdu phrases were translated into English by Sualeha Shekhani and verified by others, thus ensuring rigor.

2.6 | Data analysis

An inductive method of data analysis using the constant comparison method was carried out.[20] All authors read each transcript individually. Codes and categories were developed individually that eventually led to the development of themes. All authors agreed on the thematic framework.

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2.7 | Trustworthiness of the study

To ensure credibility of findings, the study used two methods of triangulation, i) data source triangulation by speaking to professionals at two levels, consultants and fellows, as well as interviewing across specialties, and ii) investigator triangulation by involving at least two authors in the data collection and analysis phase. Transferability of results was ensured through "thick description" of the context in which the participants operated.

3 | RESULTS

3.1 | Participants' characteristics

Out of the 12 frontline physicians, six were males. Nine were appointed as consultants. Institute A involved two physicians from infectious disease, two from critical care, and one from internal medicine. One was a nephrologist interviewed due to his role as a focal person. The incumbent was responsible for communicating with other healthcare facilities in the province and involved in decision-making at the institutional level. Institute B was represented by anesthesiologists whereas the rest were from infectious diseases. Table 1 provides a detailed breakdown of participants with specific code assigned to each used subsequently to ensure anonymity.

TABLE 1 Participants' Characteristics.

Sr. no	Institute	Specialty	Designation	Sex	Code
1	A	Infectious Disease	Consultant	Female	F-A1
2	A	Infectious Disease	Consultant	Male	M-A2
3	A	Nephrology (Focal person)	Consultant	Male	M-A3
4	A	Critical care	Consultant	Male	M-A4
5	A	Internal medicine	Consultant	Male	M-A5
6	A	Critical Care	Fellow	Male	M-A6
7	B	Anesthesiology	Consultant	Female	F-B1
8	B	Anesthesiology	Consultant	Female	F-B2
9	B	Infectious Disease	Fellow	Female	F-B3
10	B	Infectious Disease	Fellow	Female	F-B4
11	B	Anesthesiologist (Focal person)	Consultant	Male	M-B5
12	B	Anesthesiologist	Consultant	Female	F-B6

3.2 | Thematic analysis

The iterative thematic analysis revealed a variety of interconnected concepts and ideas which described the personal and social values guiding their actions. Three broad themes that illustrate the lived experiences of the COVID-19 pandemic were generated including, i) familial paradigms in the workplace, ii) public attitudes towards COVID-19 and iii) challenges experienced by healthcare professionals. Sub-themes were then identified in order to provide further clarity. The thematic framework is presented in Table 2.

3.2.1 | Familial paradigms in the workplace

Interactions among the medical team during the pandemic at both institutes reflected sociocultural norms of hierarchy and family centeredness prevalent in Pakistani society. Within the family system, roles and accompanying duties are defined in relation to several factors including age. Old age is considered a mark of respect and wisdom and the younger generation is expected to show deference to the wishes of those considered the 'elder' in the family. The elders, in return, have their own obligations to set certain standards of behavior and to serve as role models for the younger generation to follow.

Our interviews revealed that senior physicians, considered the elders in the institutional hierarchy, met this obligation in different ways. They were present with junior physicians at all times, taking patient rounds with them, motivating them to work thereby building their confidence and boosting their morale. As participants stated:

> "*If we simply give orders and not get involved, then others would not follow suit*." **(M-A6)**

> *"I knew that as an infectious disease specialist, if I would go [to the isolation ward and ICU), others would follow.*

TABLE 2 Thematic Framework.

Number	Theme	Sub-themes
i)	Familial paradigms in the workplace	
ii)	Public attitudes towards COVID-19	**a)** Fear and Denial **b)** Stigma attached to COVID-19 **c)** Mistrust in medical community
iii)	Challenges experienced by healthcare professionals	**a)** Dealing with resource scarcity **b)** Emotional involvement with patients **c)** Coping Mechanisms

> *They'd think, if he can go, then we do not have to be scared."* **(M-A2)**

Recounting his experience of working at another hospital in the past, a senior infectious disease consultant emphasized the societal expectation from seniors to take the lead by stating,

> *"When I was doing my [internship], we saw a Congo [fever] patient for the first time. Our postgraduate trainee [senior] started giving us instructions from outside the ICU and did not come in. And while we were inside and thought, why is he not coming in?"* **(M-A2)**.

Respondents reported spending extra time with their junior colleagues in order to alleviate their own anxieties while hiding their own fears. Their role as the elder also translated into being accessible and available at all times. This duty was well met as one junior physician shared:

> *"If we face difficulty at any level of care, our seniors are there. It does not matter what time it is, if we call them at 2:00 am or 3:00 am, they will come."* **(M-A6)**

Senior physicians also played on their position as the elder to urge junior physicians to continue providing care. As one senior consultant, in his 70 s with multiple comorbidities, stated:

> *"We went inside so that we could tell [our team]. Look if I can go, then you can too. Look at my age, my underlying [medical] conditions."* **(M-A3)**

Against this cultural backdrop, with elders occupying an esteemed position within Pakistani society, there were hardly any refusals to provide care apart for one or two exceptions. As one participant stated,

> *"This is part of our culture, where elders are respected. It does not look good [if we do not follow suit]"* **(M-A2)**

Such societal expectations compelled younger physicians to follow the footsteps of their senior colleagues. As one interview explained:

> *"I see the head [of infectious department] doing rounds the whole day, even in the ICU at her age. In this situation, how can I not do it?"* **(F-B4)**

The authority that seniority in the institutional hierarchy provided also played a role in ensuring that the younger generation fulfilled their duties. As one senior consultant laughingly remarked,

> *"Their head of department was telling them [conduct rounds in Covid-19 ICU]. How could they refuse?"* **(F-A1)**

The importance of old age in Pakistani society was also reflected in how physicians decided on allocation of scarce resources. While the country had adopted national guidelines in which age was one of the factors taken into account, none of those whom we spoke to mentioned them. Their responses were guided by societal norms in which old age is viewed positively and associated with wisdom. One participant shared of an instance when a much senior colleague of hers had inquired:

> *"…If I will need intubation, would you not do it?"* **(F-A1)**

This was further illustrated when another one at Institute A with multiple comorbidities laughingly informed us:

> *"I always tell my [junior] staff….keep a bed for me in the ICU."* **(M-A4)**

The powerful influence of hierarchical norms was more pronounced in Institute A, an older institute which evolved under a renowned physician who has served as the institutional head since its inception. According to our respondents, during the first meeting that stimulated provision of care, he raised his concern at the expensive treatment provided by the private sector. He stated his wish that the institute start providing COVID-19 services and help patients out in their time of need, as this was typical of the institute's ethos. Initially, his colleagues, many of whom had worked with him from the time the institute was founded, shared their reservations with him. This included high patient volume, which they believed would compromise quality of care. As one participant shared:

> *"We told him [the head of the institute], that we cannot afford to take extra patients. He then said to us, what is this extra patient? He told us, what if you get a patient from another facility who wants dialysis? Would you not treat him? He will become your patient."* **(F-A1)**

Despite their concerns and discomfort, the team eventually showed deference to his wishes thereby giving due regard to the preferences of the elder. Under his leadership, the institute started operating as 'one' unit despite the chaos prevalent at that time. There was an instinctive response to help and care for each other which made the experience, according to one respondent, "magical" (M-A2). This was demonstrated by various departments working together to help in provision of COVID-19 care. Individuals from departments including surgery and transplant helped those who were primarily responsible for providing COVID-19 care. This involved providing supplies such as surgical gowns reserved for transplantation. Human resources from these departments was also diverted to counter personnel shortages. As an infectious disease consultant amusingly shared,

> *"Surgeons helped us a lot. All elective surgeries were stopped so they now had a lot of free time on their hands. The roles reversed, we [infectious disease] were busy, and they were free."***(F-A1)**

3.2.2 | Public attitudes towards COVID-19

Our participants reported that many common public misperceptions about the disease complicated provision of care to patients. These included either denial of the existence of the disease or stigmatizing those infected with it. Broader sociopolitical influences including mistrust in the medical community as well as ill-conceived government policies that contributed to negative attitudes towards the disease.

i) **Fear and denial**

At the beginning of the pandemic, COVID-19 was an unknown entity which created fear among the public. As one respondent stated:

"The mere mention of Covid would strike terror in their lives." **(M-A4)**

During the initial days of the pandemic, the government required COVID-19 patients to be admitted into isolation wards at designated centers. This meant that patients had no contact with the outside world. Fear of the disease stemmed from the possibility of social isolation, as one participant remarked:

"If they told anyone that they have the virus, then no one [family members] will be allowed inside [isolation or ICU]. They [patients] will be left alone." **(F-B4)**

This fear led many people to deny the existence of the disease itself. Participants reported hearing statements from families including:

"No, there is nothing like Covid-19" **(M-A4)**

Another participant shared:

"People who have had the infection… even now they say, Covid is not so serious [as they make it to be]. It's like normal flu and cough." **(F-B3)**

Dealing with such denial was frustrating for healthcare professionals as well as problematic in situations when the patient was brought to the hospital in a severe condition which necessitated detailed counseling sessions with families (F-B1). Problems also occurred when routine pre procedure PCR screening tests for COVID-19 asymptomatic patients, scheduled for dialysis or surgery, were found to be positive. In such cases, the family would turn around and say,

"The hospital gave him Covid." **(F-A1)**

Family members were also hesitant to admit patients into the ICU who appeared healthy but upon investigation had low levels of oxygen saturation. As one participant shared,

"They would argue with us. They'd say 'We only brought him here for dialysis. How did he become Covid-19 positive?'" **(M-A6)**

ii) **Stigma attached to the disease**

The stigma of being labelled as "Covid-positive" led people to being viewed as outcasts in their community. Our participants reported incidents of health workers such as nurses and paramedics who were evicted from rented properties by their landlords when they acquired the disease. A female physician also shared,

"My mother-in-law closed the main entrance of the house for me and told me, 'use the other entrance, go upstairs straight and don't come downstairs.' She was concerned that since I work with Covid patients… I would be infective." **(F-B3)**

Stigma towards the disease was further compounded by government policies that were put in place. This included demarcating houses with COVID-19 patients with yellow tape and posting Rangers (a special paramilitary force) to ensure isolation of the household. These policies were eventually suspended but played a significant role in contributing to the stigma.

A particularly touching incident was shared by a participant highlighting the depth of the human tragedy during the pandemic. While houses with COVID-19 patients were being patrolled by law enforcement agencies, family members of a deceased patient of a religious minority refused to take the body back to their village for the last rites. In the words of a participant, they believed:

"This would create disrepute [for the family]." **(M-A2)**

Family members also refused to attend the funeral which the participant considered a great tragedy:

"There was no one there to shoulder the bier. We always think there will be someone there for our last rites" **(M-A2)**

An early governmental policy, later rescinded after the first year of the pandemic, negatively contributed to the stigma attached to the body of someone who had died of COVID-19. The policy required that the dead body could only to be released to a designated funeral organization, rather than to the family, for bathing, shrouding and other rituals prior to the burial. This led depressed and angry family members to ask physicians to not declare the cause of death of their loved one as

COVID-19 so they could take the body of their kin home. Participants reported being told:

"Please tell them [government] that they [patients who died] were Covid negative" **(F-B2)**

"They asked us to tell them that he died of some other disease" **(F-B4)**.

Some of the participants we interviewed spoke about the religious importance of family members preparing the body for burial and felt that the public was justified in feeling upset:

"…because they could not send off their loved one in the proper fashion." **(M-B5)**.

iii) **Mistrust in medical community**

The broader socio-political factors including a general mistrust in the medical profession and early short-sighted policies of government influenced public attitudes towards COVID-19 infections. Since family members were not permitted inside patient care areas, they were suspicious about whether their relatives were receiving satisfactory care. A participant informed us:

"Families would ask, show us the CCTV footage inside…." **(F-B2)**.

When patients with severe illness succumbed to the disease, participants reported family members defaming the hospital and accusing its staff and physicians of wrongdoing. In one such instance, the family:

"….shared our names on social media, talking badly about our hospital." **(F-B6)**

Misperceptions from the public, reflecting a widespread mistrust in the medical community, included:

"….conspiracy theories that doctors get thousands of dollars for declaring a Covid death" **(M-A2)**

"….doctors and government are working together against the public to get money [for Covid deaths]." **(M-A5)**

This mistrust also contributed to extreme reactions from the public when a COVID-19 death was declared. The focal person at Institute B shared that he would often receive threats from influential family members:

"They would say… We will 'see' you. You wait. You declared my father as Covid positive." **(M-A5)**

Incidents of physical violence against physicians were also reported in the city when patients died from severe COVID-19 infection. Foreseeing this, the government installed police personnel outside the two hospitals to avoid unsavory situations. Whereas no such incident occurred at either of the institutions, physicians had to bear the brunt of angry, screaming families.

3.2.3 | Challenges experienced by HCWs

Participants reported multiple difficulties and challenges while providing COVID-19 care, many of them shaped by existing realities of healthcare systems and social norms and beliefs in Pakistani society.

i) **Dealing with resource scarcity**

Participants reported feeling helpless when they had to refuse care due to shortage of resources. As one expressed:

"There was one Amma jaan [motherly figure], around 50 years old. We did not admit her [in the hospital.] We could not do anything to help here. There was so many other patients in line." **(F-A1)**

One participant shared that he still felt personally responsible for the death of a patient admitted initially for the treatment of another disease. When the patient developed severe COVID-19, no ventilator was available for this patient. The participant told us with great regret:

"I should have kept an [ICU] bed for him." **(M-A4)**

Institute A subsequently adopted a policy to keep one bed available in the ICU for its regular patients, admitted patients, or for employees of the institute and their family members should they fall ill.

In Institute A, there was a shortage of paramedical personnel responsible for feeding and bathing bedridden patients, keeping them clean and ensuring their general care beyond medical management. Physicians expressed deep distress about the neglect of critically ill patients. According to one participant:

"I would also want my parents to be well-taken care of before they pass away." **(M-A4)**

Under normal circumstances, except for ICU, it would be a usual occurrence for at least one family member to stay with the patient in the hospital. However, this was not permitted during the COVID-19 pandemic. This resulted in family members becoming angry when they were not allowed in the ICU and mistrustful of the healthcare team. A combination of

these factors led to meetings among team members at Institute A including infectious disease physicians, intensivists and hospital administration to find a solution. The consensus was that young healthy family members should be provided the option of staying in the ICU with their ill relatives and assist in their general care. The risks were explained to them and, if they wished to do so, they were supplied with proper PPEs. According to physicians, many chose to do this but there were others who refused.

Permitting a family member at the bedside of their hospitalized relative was beneficial in several ways. A participant noted that the relatives assisted in taking patients to the washroom, feeding them and changing their clothes. One critical care consultant we interviewed believed that this led to a reduction in ICU delirium among patients as they were no longer cut off from the world and also aided physicians in building trust with family members:

"They could see the level of care being provided to their relatives. They knew we were working hard." **(M-A4)**

Institute A lacked support from the government in the initial days of the pandemic and also encountered shortages of equipment and other supplies. Participants shared that inexpensive and practical solutions, colloquially referred to as *jugaar* were employed to counter this situation. Examples included creation of indigenous local supplies such as PPEs including suits, face shields and safe intubation boxes. Participants expressed admiration and gratitude towards a female ophthalmologist who hired a group of tailors and provided space in the hospital so they could sew personal protective equipment. As one participant stated:

"She [opthamologist] brought over 3-4 tailors who had lost their jobs. She sat with them and taught them how to make PPEs." **(F-A1)**

Face shields were also fashioned using plastic transparency sheets [used for overhead projectors in the past], rubber bands and strings. Until HDUs and ICUs could be installed with negative pressure, temporary solutions were sought with the help of the biomedical engineering department. As one participant shared,

"We installed 8-10 huge exhaust fans in the wall so that they would suck out all the air and throw it out of the room. The air conditioning was switched off [to maintain adequate ventilation]" **(M-A2)**

While innovative, the measure meant that physicians, wearing multiple layers of PPEs sweltered in the summer heat while working inside the HDUs and ICUs.

ii) **Emotional involvement with patients and their families**

Interactions with patients and their family members played a central role in navigating COVID-19 landscape in Pakistan. These interactions illustrate the intimate bond that developed between doctors and their patients. Participants from both institutes reported feeling upset whenever a patient died due to COVID-19. As one participant stated:

"When a young patient used to die… we used to feel terrible. We were always left with a sense of regret that we may have been able to save ….if we had more resources." **(M-A6)**

A striking example of emotional involvement was the story told by more than one interviewee of a young Hindu woman, the only sister of 8 brothers, admitted to the ICU in Institute A with multi-organ failure due to severe infection. After initial improvement, she deteriorated and died and the ICU team mourned the loss of this patient for a long time. The medical team participated in the rituals arranged by her family in which a dead, unmarried woman is dressed in bright colors like a bride before she is cremated. One of the physicians told us:

"I kept on thinking….we could have saved her." **(M-A4)**

At Institute A, the death of a young nurse, considered one of their own, left physicians in a deep sense of shock. When she was admitted into the ICU, the infectious disease consultant had reassured her parents:

"I painted a very positive picture. I told them 'you have nothing to worry about. She will recover fully, after all, she is young.' And the next day, she died." **(F-A1)**

Her death was extremely traumatic for the respondent as well as other medical team members:

"We were all shocked and full of regret. Our nurses were in shock for a long time." **(F-A1)**

While speaking about the memorial service held at the institute for the deceased, the responded shared:

"I was unable to face her parents because I was feeling so remorseful [at this loss]" **(F-A1)**.

iii) **Coping mechanisms**

The coping mechanisms employed by physicians during these challenging times highlight the social values and practices accorded importance in Pakistani society. At Institute B, due to the high levels of stress that was reported, the departmental head arranged psychosocial counseling sessions for her colleagues on her own initiative since no service existed at the institute. After speaking to a certified clinical psychologist, free of charge sessions were offered, both online and in person. While some physicians accepted the offer, our participants reported that the sessions did not help. According to one participant:

> *"It was just a sort out of a let out…. We were just speaking….We could do that with our colleagues as well."* **(F-B4)**.

Praying to God, on the other hand, was reported to be of benefit. For individuals in Pakistani society, religious beliefs and rituals such as reading scripture are used in mediating stress. As one participant shared,

> *"Religion is very much a part of me and my beliefs"* **(F-B2)**

One participant reported that she had stopped praying and reading the Qur'an but when she restarted both practices during the pandemic, it was so helpful that she stopped taking sleeping medications for her insomnia (F-B3). Another participant who considered himself religious increased these ritualistic practices during the Covid months:

> *"I became more inclined towards prayers and reading Qur'an. A lot more than I used to"* **(M-A4)**.

A sense of religious fatalism that everything lies in God's power and control helped participants cope with physical, emotional and psychological stressors of pandemic work. As one participant stated:

> *"I always believe that Allah puts me in a situation because He wants me to be in it. I think that this is what He wants me to do"* **(F-B2)**

4 | DISCUSSION

While our study findings reveal many commonalities with international literature on the response of healthcare professionals to the COVID-19 pandemic, they also provide insights into, to borrow Arthur Kleinman's phrase, "local moral worlds" of Pakistani physicians when confronted with a dire situation and limited resources. Physicians from different countries struggled with respect to allocating scarce resources while coping with the physical and emotional stresses of pandemic-related work. Pakistani physicians in our study faced similar challenges and were driven by universal medical ethos of duty to care and the sense of solidarity of their counterparts elsewhere. Nevertheless, indigenous values and norms of a family-centered Pakistani society that stress duties and obligations over rights of individuals molded their responses and interactions with each other in specific ways. Our findings reflect Kleinman's observation that "Morality is also about persons interacting in concrete situations, it is about the subordination of the self to that social relational concept of experience…".[21] The lived experiences of Pakistani physicians in the trenches when the pandemic was at its height can be said to "represent distinctive ways of being-in-the-world, different modes of social experience".[22]

In both institutes, interactions between the physicians were underpinned by local familial norms characterized by hierarchical relationships and interdependencies in which the "elders" are respected and expected to provide guidance for others to follow. The familial paradigm operating in the workplace was evident within interactions between the senior consultants and their junior colleagues. Markus and Kitayama from Japan have explored how the values of the interdependent self in collectivistic societies modulate social behavior by targeting specific emotions such as "feelings of interpersonal communion, and shame…".[23] The younger physicians in our study accepted and followed the lead set by those in senior positions. This may be one of the reasons why younger members found it difficult to refuse providing care despite fears surrounding personal safety and that of their families. Failure to perform their duties may have led to perceptions and feelings of shame thereby leading to few refusals to provide care.

The senior healthcare members seemed aware of their position in the institutional hierarchy and expected the younger ones to follow. In return, seniors/teachers were expected to shoulder obligations and duties towards the younger within reciprocal norms of interdependence. Our study illustrated an underlying assumption from both parties that seniors will lead by example. This was demonstrated by a senior consultant at Institute A who, despite multiple comorbidities, considered it his obligation to continue managing pandemic-related work and lead the younger members in the team. Similar sentiments were expressed by other physicians in both institutions.

These norms of interdependencies also influenced how each organization operated as one single unit, representing a family. Previous studies have utilized the metaphor of "family" to illustrate the work culture of organizations in collectivistic societies. In fact, the ideal Asian organization is expected to operate like a 'caring' family.[24] The behavior of "older physicians" towards younger colleagues

[21]Kleinman, A. (1997). Writing at the margin: Discourse between anthropology and medicine. University of California Press, p. 45.
[22]Ibid: p. 46.
[23]Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. Psychological Review. 98(2), 224.
[24]Maccoby, M. (1994). Creating quality cultures in the east and west. Research Technology Management. 37(1), 57-59.

reflected this aspect in our study. Macoby has illustrated that a good leader in Asian cultures is expected to be like a "father figure" responsible for the well-being of people who are junior to him. Our study findings also demonstrate that this appeared to be the norm in both the institutes with the older physicians serving as "role models." The "father figure" was magnified in Institute A, an older institution with a large number of physicians who have worked together for decades. Within Institute A, the institutional head represented this figure and directed the provision of care at the outset.

In her ethnographic study of a public sector hospital in Pakistan, Moazam described the study site to offer a "family template" with interactions among healthcare professionals mirroring relationships between members of an extended family.[25] The metaphor of family played powerfully when the hospital initiated a surgical procedure for the first time in the country and different hospitals began to be approached for interviews by newspapers. However, the "patriarch" of the hospital, the most senior and a well-respected surgeon, explained to the hospital staff that this was an internal "family" matter not to be discussed with "outsiders," a concept instinctively understood by everyone. This stands in contrast to the more "Western" concept of privacy that may have been evoked elsewhere. Moazam also describes how the same "stern but benevolent" leader actively stepped in when the family of a young female physician insisted that she return to her home village against her will to get married by telling them that she wanted to study further. This brings forward the importance of elders in the "work" family, with no sharp demarcations between personal and professional relationships.[26]

Portes has suggested that such norms of obligations and duties prevalent in collectivistic cultures may exert excessive social control by restricting individual freedom, and potentially create unequal or worse, exploitative power relationships.[27] In fact, from a Western perspective, such norms are negatively perceived to be "paternalistic" and thought to lead to "non-coercive exploitation".[28] While our study respondents did not verbalize such disadvantages, it is possible that some may have been compelled to perform their duties due to the potential shame that they may have experienced by deviating from the well-established cultural norms.

Our study indicates that paternalism in the local moral world of the two institutions was not viewed negatively and was accepted in the work environment. Aycan, while writing about paternalistic leadership, defined five dimensions including i) creating a family atmosphere in the workplace, ii) establishing close and individualized relationships with subordinates, iii) getting involved in the non-work domain, iv) expecting loyalty and deference from subordinates and v) maintaining authority and status hierarchy. Nearly all respondents in our study verbalized these five dimensions operating in some fashion at both institutions. This paternalistic attitude was not only restricted to the male members of the group but also the female leadership at Institute B reflecting what Moazam terms as "a relational morality ..... a sense of right and wrong grounded in the pragmatic, empirical belief that people were interdependent beings in life...".[29]

Another aspect also illustrated by our study echoes a medical morality described by Fox and Swazey in their ethnographic work in China. They state "What seems to them more "practical" and "right", as well as comfortably familiar.... To work from every day, empirically observable human reality, focusing particularly on the relationship between specific, identifiable persons, and on their "lived in," reciprocal existence".[30] For example, while triage guidelines for clinical decision-making in Pakistan in situations of acute scarcity, including use of ventilators, existed, clinicians recruited in our study did not mention using them to make decisions on the ground relying instead of sociocultural norms of hierarchy and kinship. The national guidelines disseminated in healthcare institutes defined old age as among one of the criteria to consider when allocating scarce resources based on the experience that older age patients have worse outcomes.[31] In practice, our participants made no distinctions among COVID-19 patients based on the age criteria. For instance, a senior consultant at Institute A stated that a fully equipped ICU bed was kept for family members of physicians at all times reflecting the societal norms of "reciprocal existence" and operating in the "comfortably familiar."

Another instance of physicians emphasizing local values was exemplified through the use of creative solutions to address acute scarcity of resources. This included a policy adopted by Institute A of allowing family members of COVID-19 patients into the ICUs, a practice that at that stage of the pandemic was strongly discouraged globally. A survey of 49 hospitals conducted in the USA in 2020 revealed that all had changed their visitation policy after the pandemic restricting the entry of family members into COVID-19 ICUs.[32] Increasingly, evidence now supports allowing families into the ICUs since this appears to improve patient outcomes and leads to better communication between physicians and family members of patients.[33] In Pakistan, this decision was made intuitively in 2020 by physicians working "*in the trenches*" derived both from strong cultural norms of duties of families to be present at the bedside of critically ill kin as well as pragmatic reasoning to deal with the shortage of staff. They were doing what Fox and Swazey termed as "practical" and "right" by "empirically [observing] human reality".[34] This was also reflected in the experiences of Saudi physicians during the

[25]Moazam, F. (2006). Web of Relationships and Obligations in Bioethics and organ transplantation in a Muslim society: A study in culture, ethnography, and religion (pp.81-87). Bloomington: Indiana University Press.
[26]Ibid.
[27]Portes, A. (1998). Social capital: Its origins and applications in modern sociology. Annual Review of Sociology. 24(1), 1-24.
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[29]Moazam, op. cit. note 25, p.82.
[30]Fox, R. C., & Swazey, J. P. (1984). Medical morality is not bioethics—medical ethics in China and the United States. Perspectives in Biology and Medicine. 27(3), 336-360.
[31]National Bioethics Committee of Pakistan. (2020). COVID-19 Pandemic: Guidelines for Ethical Healthcare Decision-Making in Pakistan. Retrieved October 4, 2022 from http://nbcpakistan.org.pk/assets/nbc-ethical-decision-making-guidlines-may-8%2c-2020-(2).pdf
[32]Valley, T. S., Schutz, A., Nagle, M. T., Miles, L. J., Lipman, K., Ketcham, S. W., et al. (2020). Changes to visitation policies and communication practices in Michigan ICUs during the COVID-19 pandemic. American Journal of Respiratory and Critical Care Medicine. 202(6), 883-885.
[33]Hartog, C. S., & Reinhart, K. (2018). Staff and family response to end-of-life care in the ICU. Current Opinion in Anesthesiology. 31(2), 195-200.
[34]Fox & Swazey, op. cit. note 30.

pandemic as illustrated through a qualitative study. Despite the existence of formal ethics support, physicians "took on the burden of resolving ethical challenges themselves" but at the cost of significant emotional burden.[35]

While the influence of culture on the provision of healthcare as well as on the behavior of physicians was a prominent aspect of our findings, broader socio-political realities also appeared to play a major role in complicating clinical realities for physicians practicing on the ground. Nearly all respondents pointed-out the existence of public denial of COVID-19 which according to them occurred due to a combination of mistrust in the medical profession and ill-thought out public health policies by the government. This has also been reported from other countries. Communities in India for example, actively rejected the existence of COVID-19 by linking it to governmental "money-making schemes".[36] Previous studies on epidemics have also noted that community mistrust may lead to public denial of the disease thwarting public health efforts.[37,38]

One of the governmental policies in Pakistan included patrolling houses with COVID-19 patients by law enforcement strategies to ensure containment of the virus spread. The policy was ill-thought out in terms of its social repercussions leading to COVID-19 patients being singled out and the stigmatization of entire families and households. Widespread uncertainty regarding the disease created fear and panic which led individuals to "single out" those who were associated with COVID-19 in any fashion. For example, in some instances, tenants working in healthcare facilities were forcibly evicted from their homes. The policy also had an impact on a more personal level. One female physician we interviewed, living in a joint family system was asked to use a "different" route to enter her home by her in-laws. The consequence of this stigma was also seen in the West by physicians practicing at the frontline who faced multiple difficulties while counseling patients and their families to accept the disease as a reality. As previously reported from India, stigma may often delay seeking healthcare, or not seeking it at all.[39] Through this lens, in retrospect, it becomes apparent that policies that do not consider biosocial aspects are unlikely to result in positive public health outcomes.[40]

Another governmental policy that appeared to be ignorant of social and cultural processes was the refusal to release the dead body to the family fueling public mistrust and ultimately insulting deep-rooted religious and cultural sentiments. This was quite pronounced at least during the initial phase of the pandemic, and left its mark even after this policy was revoked by the authorities. Until then, this created logistical challenges for physicians as they handled COVID-19 mortalities. In addition, many experienced emotional and religious turbulence over a "good" death and a "proper" funeral thereby reflecting value systems they shared with the public.

The importance of funeral rites are paramount in Pakistani society with the dead body accorded a high degree of respect. This is not specific to Pakistan or Muslims since a series of communal customs surround death in nearly every religion of the world so that the deceased leaves the mortal world in a dignified manner.[32] Muslims, in particular, believe that the current life is temporary and close family members play a central role in preparation of the body for the 'real' life in the Hereafter. Funerals involve the performance of a collective prayer, known as *namaz-e-Janaza* (funeral prayer) at a mosque attended by large numbers of family and friends. Interruption of these final rites because of the pandemic restrictions left grieving family members further bereaved resulting in a massive fallout with public health. This aspect was also reported in the case of the Ebola epidemic in Sierra Leone, where 77 percent of the population is Muslim.[41] This again demonstrates the pertinence of ensuring that public health policies are framed by local moral contexts instead of being drawn up in an acultural and apolitical manner.

We believe that the current study offers a microcosm of Pakistani society and offers perspectives into healthcare delivery at two public sector hospitals. However, the study has a number of limitations. Participants included only junior and senior consultants and those working at the trainee or resident level may have different experiences. Moreover, healthcare professionals other than physicians such as nurses may have experienced the COVID-19 pandemic differently. The study was also located in two public sector hospitals in an urban setting. Perspectives from private sector hospitals or those centers providing care in rural areas may differ from those of our study.

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CONFLICT OF INTEREST STATEMENT

The authors declare that there is no conflict of interest.

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