ORIGINAL ARTICLE

INSIGHT INTO THE EXPERIENCES OF HEALTHCARE PROFESSIONALS WHO RECOVERED FROM COVID-19 IN HITEC-IMS

Hamza Saeed[1], Hamza Naveed[2], Naila Abrar[3], Munir Ahmad[4], Sajida Farid[5], Saima Umair[6]

[1,2,3,4,5]Department of Pharmacology, HITEC-IMS, Taxila
[6] Department of Community Medicine, HITEC-IMS, Taxila

ABSTRACT

Objective: The current study aims to collect the experiences of healthcare professionals who recovered from COVID-19.

Study Design: We did a qualitative study using an empirical phenomenological approach.

Place and Duration of Study: The study was conducted at HITEC-IMS, Taxila from March to July 2021.

Material and Methods: 15 healthcare professionals were recruited in total, out of which 7 were physicians working in HIT Hospital and 8 were academicians who were working in various departments of HITEC-IMS. Participants were recruited using non-probability techniques of purposive and snowball sampling. We used a self-developed and validated semi-structured interview guide to collect their lived experiences after recovering from COVID-19. Interviews were transcribed verbatim then thematic analysis was done during which themes/codes were generated.

Results: A total of twelve themes emerged from data analysis. The majority of participants were of the view that lab workers should be properly trained on sample collection. They also agreed that there is a need to address the major issue of anxiety and depression during the isolation period. All of the healthcare professionals concurred in being treated well by co-workers. Participants also saw vaccination as a positive step towards the prevention of infection and the majority of our respondents were highly satisfied with the role of the government of Pakistan during this pandemic.

Conclusion: Lab workers should be trained to perform the task and work effectively in a state emergency as they lacked skill for effective and painless sample collection. Counseling sessions should be organized to deal with anxiety, stress and more campaigns and social awareness work should be done on strategies to prevent the further spread of infection during this pandemic. Comprehensive support should be provided by the government for the well-being of healthcare workers.

Keywords: *COVID-19, healthcare professionals, pandemic, lived experience, and WHO.*

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INTRODUCTION

Coronavirus disease 2019 (COVID-19) is a global pandemic that brought the world to a total halt. As per the latest statistics of (WHO) dated Jan 18,2021 93,805,612 confirmed cases have been reported globally whereas 2,026,093 deaths have been reported worldwide[1].

On Dec 31, 2019, the first few cases of an unknown viral disease were reported in Wuhan China to the world health organization (WHO). Later the pathogen was identified as Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)[2]. Coronaviruses are a large family of viruses that are known to cause illnesses ranging from the common cold to more severe diseases such as Pneumonia and the Middle East Respiratory Syndrome (MERS). The first-ever case of SARS-CoV-2 was reported in China in 2002 which transmitted from civet cats to humans and Middle East Respiratory Syndrome corona virus (MERS-CoV) from camels to humans in Saudi Arabia in 2012[3]. It is a hypothesis that this virus grows and replicates in animals such as bats, pangolins, and civet cats kept in close proximities such as meat markets or breeding pens without causing symptoms in them [4].

Currently, the United States of America (USA) has the highest cumulative total number of cases 23,884,299 [5]. In Pakistan first patient-reported on Feb, 26, 2020.

As of latest reports Jan,19 2021 confirmed cases 523,011, active cases 35,485, deaths 11,055. Highest number of cases were reported in Sindh 236,530, followed by Punjab 150,316, KPK 63,825, Federal 40,177, Baluchistan 18,622, AJK 8,654 and Gilgit Baltistan 4,887 [6].

Healthcare professionals are the first line of defense against

Correspondence to: Hamza Saeed, Deptt of Pharmacology, HITEC-IMS, Taxila

Email: hamzasaeed1469@gmail.com

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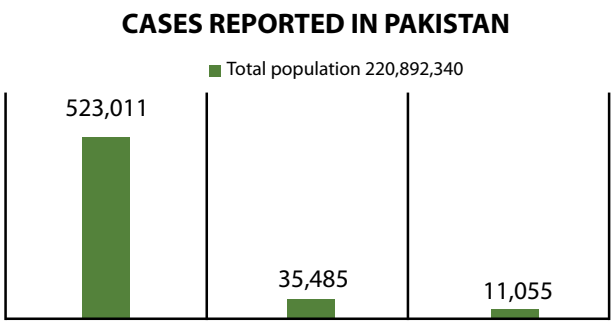
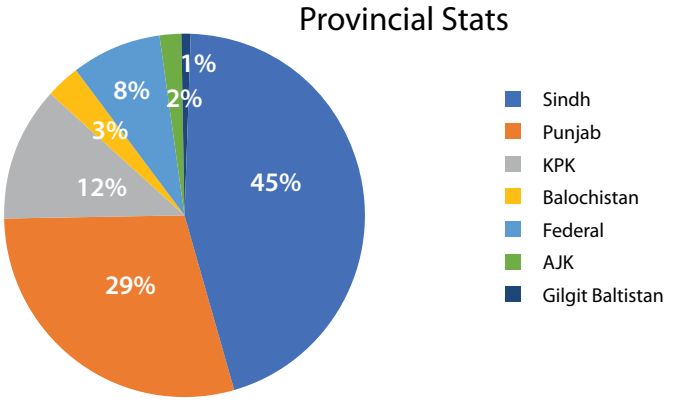
this pandemic. COVID-19 poses a serious risk to healthcare professionals as they are constantly exposed to infected individuals. Due to lack of knowledge and constant mutation in the viral RNA, there is a prominent hindrance in diagnosis, treatment, and infection control practices.

According to a study conducted between March 24 and April 23, 2020 in the United Kingdom (UK) and USA, healthcare workers has at least a threefold increased risk of reporting positive for COVID-19 infection [7].



During this period, WHO commenced many online training programs and training sessions to provide healthcare professionals with appropriate knowledge and guidance on how to deal with this infection and its spread [8].Currently there is no information regarding the experiences of healthcare professionals during COVID-19 in Pakistan.



To date there is no study done on gathering experiences of healthcare professionals, therefore; the current study aims to collect experiences of healthcare professionals who recovered from COVID-19. What were their beliefs before and after the infection?

MATERIAL AND METHODS

Study design and participants

Our research team did a qualitative study. We recruited physicians and faculty members from HITEC-IMS using the non-probability purposive and snowball sampling technique. The participants were interviewed from June 1 to June 15, 2021, using a self-developed and validated semi-structured interview guide to collect their lived experiences after recovering from COVID-19. The interview guide was validated by three senior topic experts.

We interviewed 15 healthcare professionals; the sample size was determined by theoretical saturation point which was reached till the 13th interview, two participants were additionally interviewed to confirm saturation, so no further interviews were conducted.

Inclusion criteria

- Respondents who are now negative for COVID-19.
- Respondents can be of any age.

Exclusion criteria

- Respondents who never got tested for COVID-19 whether symptomatic or asymptomatic.
- Respondents who are still positive for COVID-19.

Data Collection Procedure

- Approval for data collection from the Institutional Review Board (IRB) of HITEC-IMS was taken.
- Confidentiality was maintained by using numbers instead of names for e.g. physician P1 and for faculty F1.
- Interviews were done according to the inclusive and exclusive criteria.
- Informed consent both verbal as well as written was taken from the participants.
- The authors took interviews and audio recorded them with the permission of respondents.
- Participants were asked questions from a self-developed and validated semi-structured interview guide to collect their lived experiences after recovering from COVID-19.
- Experiences were recorded in the interview guide, transcribed and thematic analysis was done during which codes and themes were generated.
- To increase the rigor of research, a member-checking procedure was performed after interview transcription.
- Team members also rechecked the answers to increase the rigor of the research process.

All the interviews were transcribed within 24 hours of taking the respective interview. A group of at least two researchers was present at the site of the interview. One researcher was taking notes and the other was asking interview questions, meanwhile, a recorder (mobile device) was placed on the table with the permission of the respondent to audio record the whole interview. The interviews were then transcribed verbatim.

DATA ANALYSIS

The interviews were analyzed using (NVIVO 11) software which is a widely used software for qualitative research. A separate file was made including all questions of each interview. The interview responses were read by all authors to remove any oddity. The answer to each question was configured into a sequence.

Finally, a consensus was reached among all the researchers to include the responses. Codes and themes were generated from the responses of participants.

Table 1: Demographic characteristics of participants.

Participants	Age	Gender	Qualification	Marital Status	Current Designation	Experience in Years
Physician 1	35	Male	BDS	Married	Medical Officer	8
Physician 2	38	Male	BDS	Married	Senior Registrar	12
Physician 3	60	Male	MBBS	Married	Professor	20
Physician 4	37	Male	BDS	Married	Assistant Professor	10
Physician 5	34	Male	BDS	Single	Registrar	8
Physician 6	47	Female	MBBS	Married	Professor	17
Physician 7	45	Female	MBBS	Married	Associate Professor	13
Faculty 1	27	Female	MBBS	Married	Lecturer	2
Faculty 2	63	Male	MBBS	Married	Professor	22
Faculty 3	29	Female	BDS	Married	Lecturer	5
Faculty 4	28	Female	MBBS	Married	Lecturer	2
Faculty 5	42	Female	MBBS	Married	Professor	16
Faculty 6	32	Female	MBBS	Married	Lecturer	5
Faculty 7	29	Female	MBBS	Married	Senior Lecturer	5
Faculty 8	31	Male	MBBS	Married	Senior Lecturer	5

RESULTS

Our sample consisted of 15 respondents of which seven were physicians and eight were academicians working in HITEC-IMS. The interviews were conducted from June 1 to June 15, 2021. Saturation was achieved after the 13th interview and two further additional interviews were conducted to confirm the saturation. Interviews lasted for about 15-30 minutes.

Themes were developed from codes after the coding process. Themes and their codes were generated through NVIVO 11 software. Figure 1 shows the responses of participants towards questions that were asked using the interview guide. Themes were generated from the responses of participants and were defined. There was a total of 10 questions with 2 questions having a part (a) and (b), so the total responses were for 12 questions.

We recruited 15 healthcare workers in total out of which 7 were physicians and working in HIT Hospital and 8 were academicians which are working as faculty in various departments of HITEC-IMS.

The 1st theme was "Experience with the collection of samples". The majority of the participants were unsatisfied with it, while only a small percentage was satisfied and only 1 participant had mixed feelings (Figure 1).

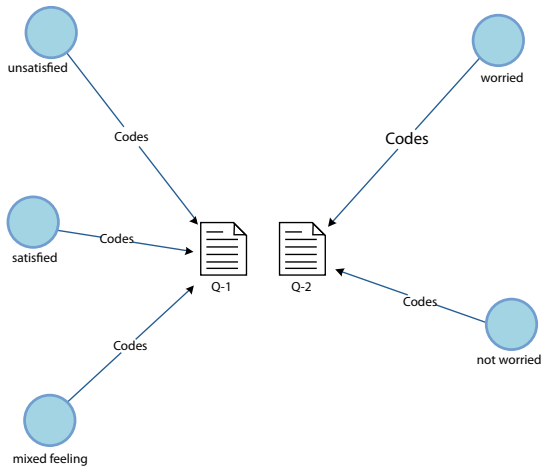


Figure 1: Theme 1

Figure 2: Theme 2

2nd theme was 'feelings about passing the infection to the family". Almost all of the participants were worried and had anxiety that they might pass the infection to their loved ones and it had a psychological toll on them (Figure 2).

3rd theme was 'can you recall/relate how you contacted this virus". Most participants were of the view that they contacted this virus from gatherings like weddings, college functions, students in class. Some respondents could not remember exactly how they caught this virus (Figure 3).

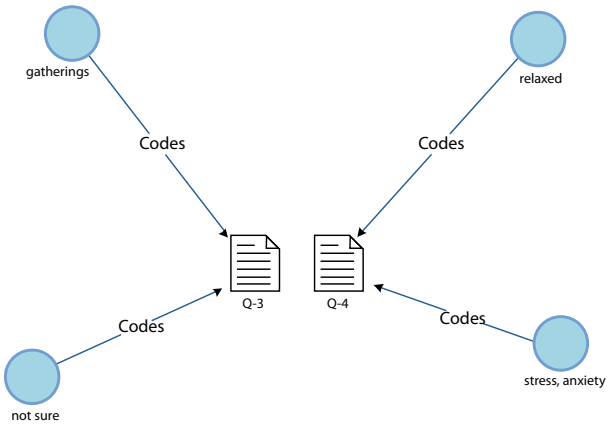


Figure 3: Theme 3

Figure 4: Theme 4

4th theme was "Anxiety or stress during isolation period". Almost 9 participants stated that they had no anxiety or stress during the self-isolation period. 6 of the participants had minor symptoms of anxiety or depression. Fortunately, none of the respondents had any major anxiety or depression problem (Figure 4).

5th theme was "what symptoms did you have due to COVID-19". The participants had mixed symptoms which included (fever, myalgia, loss of taste and smell, cough, shortness of breath, gastrointestinal symptoms, sleep disturbance, conjunctivitis, cardiac symptoms, headache). The majority of the participants had fever and body aches. There was also a portion of respondents who suffered from loss of taste and smell and there were two participants who still don't have their taste or smell restored. Surprisingly only 4 participants had the problem of cough (Figure 5a).

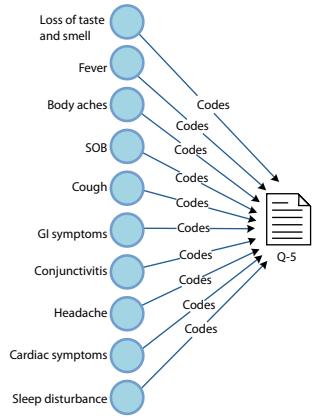


Figure 5: Theme 5

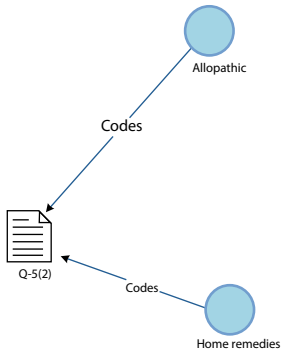


Figure 5: Subtheme 5

5th subtheme was "What treatment plan did you follow". Almost all of the participants used allopathic drugs for the symptoms as they themself were in the healthcare field, so they refrained from homeopathic treatments (Figure 5b).

6th theme was "feeling after testing negative". Most of the participants felt relaxed and happy to recover from this infection and some showed mixed feelings about their health now, as half of them still complained about dyspnea and lethargy which they didn't experience before, and it's having a negative effect on them as they will recover from this with time (Figure 6).

7th theme was "how satisfied are you with your health (immunity) now". There was a very mixed response to this theme, almost half of the participants were still having problems in carrying out their daily duty they felt lethargic and felt extra load or heaviness on their body (Figure 2).

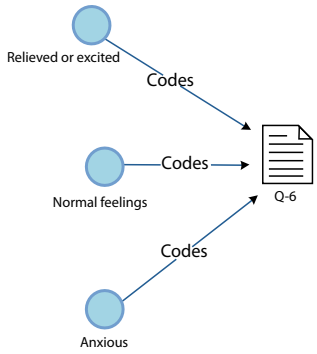


Figure 6: Theme 6

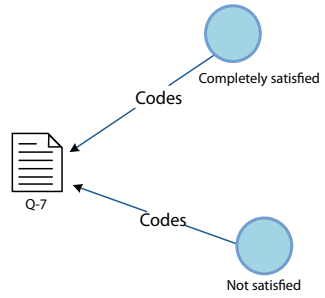


Figure 7: Theme 7

8th theme was "attitude of coworkers while participants were COVID-19 positive". All of the participants were happy and very thankful to their coworkers as they supported them both morally and physically by sharing their workload. Some were offered to stay at home and have rest even after the end of the isolation period (Figure 8).

The 9th theme was "how do you access the role of the vaccine in dealing with the Covid-19 pandemic". Almost all of the participants had some idea about the vaccine that it is a necessity in this time to prevent further transmission of this infection and to limit the number of casualties and the only way to eradicate this pandemic is by vaccination (Figure 9).

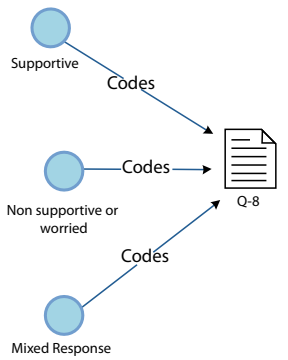


Figure 8: Theme 8

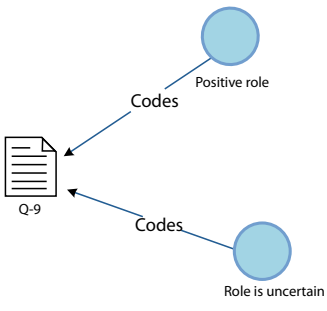


Figure 9: Theme 9

10th theme was "What measures can be helpful in preventing the spread of infection". Most of them were of the view that wearing the mask, maintaining social distance, avoiding public gatherings, use of sanitizers, and frequent hand washing was necessary to prevent further spread. Two participants also said that educational institutes should not be re-opened as this was the main cause of the spread of infection, also gatherings like weddings should be banned until and unless the positivity rate drops below 3% (Figure 10).

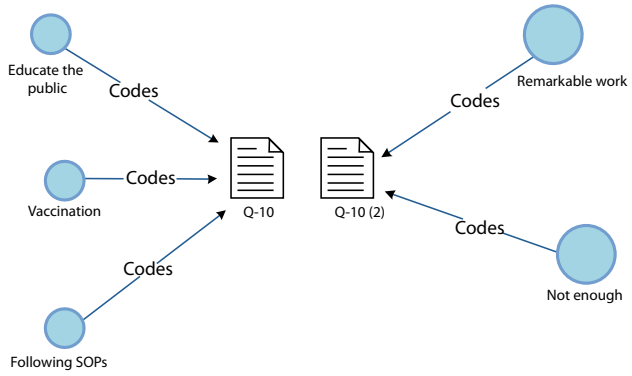


Figure 10: Theme 10a **Figure 10b: Subtheme 10**

10th subtheme was the "role of the government of Pakistan to prevent the spread of infection". As far as the role of government is concerned they said that the government of Pakistan played a positive role in this situation as being a third world country the government still managed to keep the death toll to a minimum, provided free vaccines to its citizens, started a campaign to raise awareness about COVID-19 (Figure 10b). In short, the role played by the government in this ordeal is commendable and should be highlighted.

DISCUSSION

COVID-19 has completely changed the whole situation of the world. Pakistan, being a third-world country is at serious risk, timely control of this virus is of prime importance.

Our study illustrated that there was a major problem of anxiety and depression among healthcare professionals during the quarantine period. The pandemic had a significant effect on mental health, job security, workload, and the quality of care provided [9].

In the study, it was observed that all the co-workers played a positive role and treated healthcare professionals very well during the COVID-19 crisis. Workers showed great spirit and zeal to serve their nation but the intensive work drained healthcare workers physically and emotionally [10].

European countries reported extensive depression and anxiety due to the situation. The level of severity was influenced by age, gender, occupation specialization, workload, and proximity to COVID patients [11].

Our study also concluded that the testing procedure of polymerase chain reaction-reverse transcription (PCR-RT) caused pain and irritation which created distress among the healthcare professionals. A study conducted in the UK concluded that many loopholes were present in the UK health system during this pandemic as lack of personal protective equipment (PPE), training, and tests created anxiety and distress among the workforces [12]. Positive aspects reported were solidarity, support, and being valued by society [13].

Home healthcare professionals of different ethnic groups felt neglected, at higher risk of infection due to lack of PPE, lack of supplies and training from their agencies, and relied on other agencies for support and supplies [14]. They experienced challenges that exacerbated the inequities they face as a marginalized workforce [15].

The mass vaccination program of the government of Pakistan was seen as a remarkable role [16]. Healthcare professionals before this felt they were at risk of infection and showed a moderate level of anxiety due to non-availability of vaccine, no specific treatment, high rate of transmission, and lack of knowledge [17,18].

Healthcare professionals showed negative emotions, fatigue, discomfort, and helplessness due to work, fear, anxiety, and concern for patients and family members but they also found growth under pressure, gratefulness, teamwork, and self-reflection [19].

CONCLUSION

The issue with PCR-RT testing in Pakistan is that people are afraid of the pain or irritation at the site of infection so, there is a need of providing technical training to all the sample collectors across the country. This will reduce the fear of getting tested in the mass population.

In addition, there is the problem of proper isolation as most of the population lack a private space or room and most of them have shared space in Pakistan. The government needs to be more active in sorting out this problem.

Moreover, the problem of anxiety and depression also arises among people due to long stays at home during a pandemic. Healthcare professionals are the front-line force in fighting this pandemic, we found them to be very resilient and highly motivated in dealing with their patients. They were supported well by their colleagues. There was a sense of acknowledgment for them and when they were positive for COVID-19, their junior staff facilitated them in every capacity.

The role of vaccine is a positive one and everyone should be encouraged to go for it as it will reduce chances of getting this infection. The public needs to be educated more on the need to follow standard operating procedures (SOPs) especially like wearing of the mask should be made mandatory and violations should be fined.

The role of the government of Pakistan should be appreciated

because despite financial constraints it took timely decisions and implemented actions to stop the spread of infection.

The Government of Pakistan needs to formulate strict policies and implement them in institutes like colleges, universities, and schools. There is a need to keep the balance of going about a normal life routine along with following SOPs.

AUTHORS' CONTRIBUTION

Hamza Saeed: Topic selection, devising and write up of methodology, results and conclusion, Presenting synopsis to IRB and final submission of article for approval.
Hamza Naveed: Introduction write up, transcribing verbatim of interviews.
Munir Ahmad: Supervisor, overall supervision of research work.
Naila Abrar: Final review of research work results and discussion.
Sajida Farid: Overall scrutiny of the entire write up in research especially in introduction and abstract.
Saima Umair: Assisting 1st author in data collection.

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