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**Perceptions, challenges, and experiences of healthcare providers in emergency departments regarding workplace violence during the COVID-19 pandemic: An exploratory qualitative study from an LMIC**

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3 **Perceptions, challenges, and experiences of healthcare providers in emergency departments**  
4 **regarding workplace violence during the COVID-19 pandemic: An exploratory qualitative**  
5 **study from an LMIC**  
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**Abstract:****Introduction:**

Workplace violence (WPV) against healthcare workers (HCWs) has emerged as a global issue. Emergency Department (ED) HCWs as front liners are more vulnerable to it due to the nature of their work and exposure to unique medical and social situations. COVID-19 pandemic has led to a surge in the number of cases of WPV against HCWs, especially against ED HCWs. In most cases, the perpetrators of these acts of violence are the patients and their attendants. The causes of this rise are multifactorial; these include the inaccurate spread of information and rumors through social media, certain religious perspectives, propaganda, and increasing anger and frustration among the general public. We aim to conduct a qualitative exploratory study at two major EDs of the city involving ED healthcare providers. The purpose of this study is to determine the perceptions, challenges and experiences regarding workplace violence faced by ED healthcare providers during the COVID-19 pandemic.

**Methods and Analysis:**

For this research study, a qualitative exploratory research design will be employed using in-depth interviews and a purposive sampling approach. Data will be collected using in-depth interviews from study participants working at the emergency departments of Jinnah Postgraduate Medical Centre (JPMC) and the Aga Khan University Hospital (AKUH) Karachi, Pakistan. Study data will be analyzed thematically using NVivo V.12 Plus software.

**Ethics and Dissemination:**

Ethical approval for this study has been obtained from the Aga Khan University Ethical Review Committee (AKU-ERC) and from JPMC. The results of the study will be disseminated to the scientific community and to the research subjects participating in the study.

The findings of this study will help to explore the perceptions of ED healthcare providers regarding workplace violence during the COVID-19 pandemic and provide a better understanding of study participants' challenges with regard to WPV during the Covid-19 pandemic.

## Article Summary

### Strengths and limitations of this study

- This qualitative study is a multicenter study, including participants from both large public and private sectors EDs. Very few studies have been conducted in the area of workplace violence against the frontline ED workforce that became vulnerable to such acts during the COVID-19 pandemic.
- The results of this study will provide a deeper insight into the issue of WPV against ED HCWs and will guide the development of context-specific interventions to address challenges of healthcare workers regarding WPV during the COVID-19 pandemic.
- The study can also serve as a strong base for a multi-center quantitative/mixed methods study with a larger sample size among ED HCWs across the country.
- One limitation of the study is that since participants are being interviewed online, authors will not have the opportunity to build rapport with participants and record non-verbal cues.
- Due to the nature of discussion regarding WPV, participants may be hesitant to touch upon some emotional triggers.

**Background:**

Work place Violence (WPV) is referred to as any act or threat of physical or verbal violence, harassment, terrorizing, or other intimidating behavior occurring at a worksite that leads to a physical or psychological injury to the victim (1). WPV has evolved as a global issue and regarded as an epidemic in some countries (2). International research has found that staff and patient attributes, interaction between staff and patients, as well as environmental characteristics are important factors associated with the occurrence of patient and visitor violence (3). Health care workers are more prone to it and it ranges from threats and verbal abuse to physical assaults and even homicide (4) besides the impact on the health care professionals, violence also, directly and indirectly, affects the quality of patient care (5-7). Health care workers in the emergency department (ED) are more vulnerable to violence (5, 8, 9) due to a variety of stressors including overcrowding of ED, unresolved issues of emergency patients, disease stress, patient pain, high acuity of patient illness, rotating staff, and late hours (7, 9, 10).

COVID-19 pandemic, a threat to global health and economy, has drastically manipulated our daily lives and behavior as a common man, alongside, health care workers being the frontline fighters in this pandemic are ferociously exposed to hazards that put their lives at risk. Hazards include pathogen exposure, long working hours, psychological distress, fatigue, and occupational burnout. Health workers experience stress and concern about transmitting the disease to family members and experience a constant sense of intense fear, stigmatization, and ostracism when treating patients with COVID-19 (11). Rather than gaining appreciation, HCW's experience violent behavior in the ED by the patients and their attendants. The reasons leading to such attacks include fear, anxiety, propaganda about the spread of pandemic, and inappropriate anger among the masses (12). Other factors causing psychological distress include conspiracy theories,

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3 global socio-economic crisis, travel restrictions, adjournment of religious, sports, cultural and  
4 entertainment events, panic buying, and hoarding (13). These mental challenges make the people  
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6 displace aggression on HCWs, serving as a direct threat to them. In reference to recent case that  
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8 occurred in Royal Adelaide Hospital, South Australia, where the patient who was initially  
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10 compliant presented with alcohol intoxication and suspected COVID-19 infection, reported to  
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12 ED and later became agitated at being kept in isolation, blocked the door to the ED healthcare  
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14 staff and set fire to their belongings (14), this behavior could potentially harm the HCWs and  
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16 also affect patient care negatively. In some places like Mexico, health care workers are being  
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18 accused of spreading the virus and are being attacked by the public, some patients have also been  
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20 observed to purposely cough or spit on health care workers (11). Health care workers are being  
21  
22 physically assaulted not just in Mexico (15), but cases have also been reported in the Philippines,  
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24 Australia, and the USA (12). It is clear from the current epidemics in Europe and the United  
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26 States that COVID-19 disease will place a severe strain on health systems. This effect is likely to  
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28 be more extreme in lower-income settings where health care capacity is typically limited. Paired  
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30 with the threats of WPV, the health care facility in Low-to-Middle-Income Countries (LMICs)  
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32 has become more challengeable. LMICs have reported that 60-87.5% of emergency healthcare  
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34 providers (e.g., nurses and physicians) experience some form of WPV annually (16). Looking at  
35  
36 the situation in South Asia, health care workers in India are being beaten, stoned, spat on,  
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38 threatened, and expelled from their homes (17). Despite dying of COVID-19 and getting  
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40 hospitalized due to lack of personal protective equipment (PPE), violence against healthcare  
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42 providers, especially doctors and nurses, is on the rise and COVID-19 wards are daily being  
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44 attacked by attendants of patients who succumb to complications of the disease, as quoted by  
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46 officials (18).  
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3 In Pakistan, some serious incidences of WPV against ED frontline healthcare staff are reported  
4 by media at various public and private sector hospitals but many incidences are kept unreported.  
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6 In light of these events in the country, The Pakistan Islamic Medical Association (PIMA) said  
7 that doctors and paramedics were facing double jeopardy. “The workforce at the healthcare  
8 facilities in Pakistan is diminishing at a rapid pace due to COVID-19 since doctors and nurses  
9 are dying daily due to the lethal infection while treating patients, and on the other hand, people  
10 are subjecting them to violence, which is totally unacceptable,” said a member of PIMA, while  
11 talking to The News. In addition, he maintained that doctors and healthcare facilities were being  
12 attacked on a daily basis throughout the country, and blamed the smear campaign against them  
13 on social media, ignorance of some people and lack of security at the healthcare facilities (18).  
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15 COVID-19 Pandemic has caused the hospitals to fill up, subsequently, HCWs are being  
16 subjected to physical assaults by the angry and frustrated patients and their attendants (18, 19).  
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18 The World Economic Forum asserts that women comprise the majority of frontline healthcare  
19 workers globally, meaning that female representation is vital in tackling the coronavirus crisis.  
20  
21 70% of the world's healthcare staff are made up of women. Without women in these positions,  
22 women's issues could fail to be addressed throughout the crisis (20). On the contrary, female  
23 doctors and nurses are being subjected to WPV in an unbiased manner as of yet. Female doctors  
24 and nurses are facing the brunt of the situation in the country and many female doctors and  
25 nurses are staying away from healthcare facilities due to the growing violence against them, the  
26 resources added as cited in media (18). A major incidence of stoning and destroying whole  
27 COVID-19 ward in the ED of a public sector hospital took place in Karachi, during the initial  
28 phase of the pandemic and similar episodes took place in other hospitals as well, but no  
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30 substantial actions were taken against the individual responsible for such incidences (21). The  
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3 outcomes of these incidences have a deleterious impact on the physical and mental health and  
4 wellbeing of ED's HCWs and frontline staff. Conclusively, there have been data sets that enable  
5 the depiction of workplace violence on HCW's globally, however the current exploratory study  
6 is planned to seek perspectives of HCW's in ED on the effects of WPV amidst the pandemic  
7 being a compromise to public health and HCW's efficiency.  
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15 A study conducted on 179 physicians from 5 specialties to measure the association between  
16 experience of WPV and self-report of post-traumatic stress disorder (PTSD), depression, anxiety,  
17 and burnout reported that one in 6 physicians experienced physical abuse and 3 in 5 verbal abuse  
18 during their duty in the past year. PTSD symptoms were 6.7 times more commonly seen in those  
19 who experienced physical attack (22). Another cross-sectional survey conducted in four of the  
20 largest tertiary care hospitals in Karachi, Pakistan which found that 16.5 % of health care  
21 workers in ED, mainly nurses, were physically assaulted and 72.5% experienced verbal abuse  
22 (23). WPV is a significant obstacle in delivery of health care services which can be prevented by  
23 taking timely adequate actions. In context of the current pandemic, WPV is more frequent in the  
24 ED leaving the HCWs vulnerable to such kinds of threats.  
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### 39 **Methods and Analysis:**

#### 40 **Study design:**

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42 Qualitative exploratory research design will be employed using in-depth interviews (IDIs) and a  
43 purposive sampling approach. Descriptive exploratory qualitative design tends to be electric in  
44 data collection methods and designs based on general premises of constructive inquiry. The IDIs  
45 aim to explore the perceptions, challenges and experiences regarding Workplace Violence faced  
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3 by ED healthcare providers (Doctors, nurses, and frontline staff) during the COVID-19  
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5 pandemic.  
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### 8 **Study setting and Study Participants:**

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11 Data for this study will be collected from two purposively selected tertiary care hospitals (one  
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13 public and one private) from Karachi, Pakistan. The study will be conducted at the emergency  
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15 departments (ED) of Jinnah Postgraduate Medical Centre (JPMC) hospital and the Aga Khan  
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17 University Hospital (AKUH) Karachi, Pakistan. The ED of JPMC receives the heaviest number  
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19 of patients. AKUH is amongst the largest private tertiary care facility in the city. The study  
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21 participants including (doctors, nurses, paramedics, pharmacists, and admin staff) will be  
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23 recruited through purposive sampling technique. We will only interview those participants who  
24  
25 have been working full time at ED since the COVID-19 outbreak in Pakistan. The objective to  
26  
27 recruit medical and administrative staff is to explore the different perspectives and experiences  
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29 of WPV at ED. Before starting the interview, the objective of the study will be shared and  
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31 written informed consent will be taken from the study participants. Only those respondents will  
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33 be interviewed who will give consent and willing to participate in the study. The sample size will  
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35 be determined through the 'saturation principle'. When the researchers would observe that no  
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37 more new information, themes, and sub-themes are emerging the data collection will be seized.  
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44 The sample size will be dependent. The purposive sampling follows the concept of theoretical  
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46 saturation, this means we will include participants until the data has reached sufficient saturation  
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48 to meet study objectives.  
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### 50 **Eligibility Criteria**

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52 The following are the criteria for inclusion and exclusion of study participants.  
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### **Inclusion criteria**

- ED frontline healthcare professionals including doctors, nurses, paramedics, pharmacists, administration staff.

### **Exclusion criteria:**

- Refusal to consent for participation.

### **Data Collection Procedure:**

The data will be collected through in-depth interviews with health care providers and administrative staff who have been directly or indirectly providing care of COVID-19 patients in ED. The In-depth interviews facilitate investigators to probe and understand the research question more precisely in the face-to-face direct communication. The data will be collected through a semi-structured guide with several probing options. We anticipate conducting 22-25 IDIs with a group of ED frontline health care providers comprising of doctors, nurse, paramedics, admin staff and pharmacists at two tertiary care facilities (Aga Khan University Hospital, Jinnah Postgraduate Medical Centre). The data collection will be seized once sample saturation is achieved. The interview guide is developed after an intensive literature review, discussion with health care providers and administrative staff. The semi-structured guide will be pilot tested before actual data collection and will be periodically updated during data collection. The guide is structured in a way that there is a flow of information coming from the participants in a continuum.

Data collection will be started after seeking ERC approval from both the study sites. A written consent of the head of the department of ED before starting formal data collection. After seeking departmental permission, a list of staff will be obtained to contact with study participants. The

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3 staff of ED will be approached through in-person, phone, and email to schedule a meeting for an  
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5 interview. The interview guide will be shared through email after scheduling the interview time.  
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7 The brief biography of the interviewer will also be shared with the interviewee before starting  
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9 the interview. Data will be collected face to face interviews and on the Zoom call according to  
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11 the preference and availability of interviewee. Data will be collected by the first author along  
12  
13 with co-authors in Urdu and English. Before data collection, consent of recording and note-  
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15 taking will be taken from participants. If the interviewee will hesitate of being recorded his/her  
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17 interview, then only notes will be taken by the co-author. Before starting the interview, the  
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19 study's introduction and objectives will be explained. Confidentiality and anonymity of the  
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21 participants will be maintained by the interviewer. At the end of the interview, participants will  
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23 be asked any questions and share their feedback.  
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Type of HCP's	Number of participants to be interviewed
Physicians	5
Residents	5
Nurses	5
Paramedics	3
Pharmacists	2
Admin staff	2
<b>TOTAL (each site)</b>	<b>22</b>

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39 *In-Depth Interview Guide (IDI guide) is attached as a separate document.*

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42 **Patient and public involvement:**

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44 Patients or the public WERE NOT involved in the design, or conduct, or reporting, or  
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46 dissemination plans of our research.  
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50 **Data Analysis:**

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52 The audio recording and written notes will be transcribed and translated into English by the two  
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54 co-authors (SA, MN). The translated data will be counter checked with audio recording to ensure  
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3 the quality of transcripts by the first author (MN). The data will be analyzed through the  
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5 inductive method with the help of NVivo computer software. The analysis approach used a  
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7 combination of predetermined and self-derived themes facilitated by observation, formal and  
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9 informal discussions with study participants. Major themes and sub-themes will be identified  
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11 through detailed readings of transcripts and patterns of data by two co-authors (SA, MN). A  
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13 codebook of relevant quotes will be generated from the data as well as concepts of interest at the  
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15 outset of the study. The study themes, sub-themes, and quotes will be discussed among all the  
16  
17 co-authors and discrepancies will be discussed during the analysis and interpretation of the data.  
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19 The design and reporting of data will be based on the consolidated criteria for reporting  
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21 qualitative research (COREQ) guidelines. (24)  
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### 27 **Ethics and Dissemination:**

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29 Ethical approval for this study will be obtained from the Aga Khan University Ethical Review  
30  
31 Committee (AKU-ERC). A separate ERC will be taken for the study from JPMC as well. The  
32  
33 study objectives and voluntary nature of the study will be explained to the participants, and oral  
34  
35 informed consent will be obtained before each online interview. Confidentiality of participants  
36  
37 will be maintained by placing de-identifiers instead of names and their designations (e.g.,  
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39 physician P1, P2, etc. and nurse N1, N2, etc.). Also, information regarding participant's identity  
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41 will be removed from transcripts. All audio recordings and transcripts will be saved on a  
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43 password-protected computer.  
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### 49 **Discussion:**

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51 Our research will help to explore the perceptions ED healthcare providers (Doctors, nurses, and  
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53 frontline staff) regarding workplace violence during the COVID-19 pandemic. Specifically, the  
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3 findings of the qualitative study will provide a better understanding of study participants'  
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5 challenges with regards to WPV during Covid-19 pandemic. Finally, this study would suggest  
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7 strategies to improve the overall experiences of healthcare workers working in EDs of the public  
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9 and private hospitals during the COVID-19 pandemic. The study would also guide the  
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11 development of context-specific interventions to address challenges of frontline Emergency  
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13 department healthcare workers regarding WPV during the COVID-19. The study may also serve  
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15 as a strong base for a multi-center quantitative /mixed methods study at a larger sample size  
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17 among ED HCWs across the country.  
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**Author's Contributions:**

Maleeha Naseem (MN) is the principal investigator and was involved in study conceptualization, study design, protocol design, IRB/ERC approval, methodology, medical literature review and article writing.

Anam Feroz (AF) is the co-Principal Investigator and was involved in study design, protocol design, plan of analysis, methodology, medical literature review and article writing.

Hajra Arshad (HA) was responsible for medical literature review and article writing.

Sarah Ashraf (SAF) was responsible for medical literature review and article writing.

Muhammad Asim (MA) was involved in methodology and article writing.

Seemin Jamali: is the co-investigator and was involved in ERC approval and article writing.

Asad Iqbal Mian (AIM) is the co-investigator/collaborator and was involved in project feedback as well as article writing.

**Competing Interest Statement:**

The authors of this study have read and understood BMJ policy on declaration of interests and declare that we have no competing interests.

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# BMJ Open

## Perceptions, challenges, and experiences of healthcare providers in emergency departments regarding workplace violence during the COVID-19 pandemic: Protocol for an exploratory qualitative study from an LMIC

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<b>Primary Subject Heading</b>:	Emergency medicine
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Keywords:	COVID-19, ACCIDENT & EMERGENCY MEDICINE, Health policy < HEALTH SERVICES ADMINISTRATION & MANAGEMENT

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3 1 **Perceptions, challenges, and experiences of healthcare providers in emergency departments**  
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5 2 **regarding workplace violence during the COVID-19 pandemic: Protocol for an exploratory**  
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8 3 **qualitative study from an LMIC -**  
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3 **40 Abstract:**  
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6 **41 Introduction:**  
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9 42 Workplace violence (WPV) against healthcare workers (HCWs) has emerged as a global issue.  
10  
11 43 Emergency Department (ED) HCWs as front liners are more vulnerable to it due to the nature of  
12  
13 44 their work and exposure to unique medical and social situations. COVID-19 pandemic has led to  
14  
15 45 a surge in the number of cases of WPV against HCWs, especially against ED HCWs. In most  
16  
17 46 cases, the perpetrators of these acts of violence are the patients and their attendants. The causes  
18  
19 47 of this rise are multifactorial; these include the inaccurate spread of information and rumors  
20  
21 48 through social media, certain religious perspectives, propaganda, and increasing anger and  
22  
23 49 frustration among the general public. We aim to conduct a qualitative exploratory study at two  
24  
25 50 major EDs of the city involving ED healthcare providers. The purpose of this study is to  
26  
27 51 determine the perceptions, challenges and experiences regarding workplace violence faced by  
28  
29 52 ED healthcare providers during the COVID-19 pandemic.  
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35 **53 Methods and Analysis:**  
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38 54 For this research study, a qualitative exploratory research design will be employed using in-depth  
39  
40 55 interviews and a purposive sampling approach. Data will be collected using in-depth interviews  
41  
42 56 from study participants working at the emergency departments of Jinnah Postgraduate Medical  
43  
44 57 Centre (JPMC) and the Aga Khan University Hospital (AKUH) Karachi, Pakistan. Study data  
45  
46 58 will be analyzed thematically using NVivo V.12 Plus software.  
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50 **59 Ethics and Dissemination:**  
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3 60 Ethical approval for this study has been obtained from the Aga Khan University Ethical Review  
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5 61 Committee (AKU-ERC) and from JPMC. The results of the study will be disseminated to the  
6  
7 62 scientific community and to the research subjects participating in the study.  
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9

10 63 The findings of this study will help to explore the perceptions of ED healthcare providers  
11  
12 64 regarding workplace violence during the COVID-19 pandemic and provide a better  
13  
14 65 understanding of study participants' challenges with regard to WPV during the Covid-19  
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16 66 pandemic.  
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## 20 67 **Article Summary**

### 21 68 **Strengths and limitations of this study**

- 22  
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26 69 • This explorative qualitative study will provide an in-depth understanding of the  
27  
28 70 consequences and impact of WPV on frontline ED healthcare workers working in an LMIC  
29  
30 71 during the COVID-19 pandemic, which has not been fully explored in previous studies  
31  
32 72 conducted on this topic.  
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35  
36 73 • This is a multicenter study, including participants from public as well as private sector EDs  
37  
38 74 and can serve as a base for larger multi-center quantitative/mixed methods studies involving  
39  
40 75 ED HCWs across the country.  
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42  
43 76 • The results of this study will guide the development of context-specific interventions to  
44  
45 77 address the challenges of healthcare workers in LMICs experiencing WPV during the  
46  
47 78 COVID-19 pandemic.  
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49  
50 79 • This study will also guide the formulation of approaches and strategies to combat WPV in  
51  
52 80 case of any other public health crisis related to frontline ED healthcare workers in the future.  
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3 81 • One limitation of the study is that since participants are being interviewed online, authors  
4  
5 82 will not have the opportunity to build rapport with participants and record non-verbal cues.  
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7  
8 83 • Due to the sensitive nature of the issue of experiencing WPV, participants may be hesitant to  
9  
10 84 touch upon some emotional triggers during the online interview.  
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3 **86 Background:**  
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6 87 Work place Violence (WPV) is referred to as any act or threat of physical or verbal violence,  
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8 88 harassment, terrorizing, or other intimidating behavior occurring at a worksite that leads to a  
9  
10 89 physical or psychological injury to the victim (1). WPV has evolved as a global issue and  
11  
12 90 regarded as an epidemic in some countries (2). International research has found that staff and  
13  
14 91 patient attributes, interaction between staff and patients, as well as environmental characteristics  
15  
16 92 are important factors associated with the occurrence of patient and visitor violence (3). Health  
17  
18 93 care workers are more prone to it and it ranges from threats and verbal abuse to physical assaults  
19  
20 94 and even homicide (4) besides the impact on the health care professionals, violence also, directly  
21  
22 95 and indirectly, affects the quality of patient care (5-7). Health care workers in the emergency  
23  
24 96 department (ED) are more vulnerable to violence (5, 8, 9) due to a variety of stressors including  
25  
26 97 overcrowding of ED, unresolved issues of emergency patients, disease stress, patient pain, high  
27  
28 98 acuity of patient illness, rotating staff, and late hours (7, 9, 10).  
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34 99 COVID-19 pandemic, a threat to global health and economy, has drastically manipulated our  
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36 100 daily lives and behavior as a common man, alongside, health care workers being the frontline  
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38 101 fighters in this pandemic are ferociously exposed to hazards that put their lives at risk. Hazards  
39  
40 102 include pathogen exposure, long working hours, psychological distress, fatigue, and occupational  
41  
42 103 burnout. Health workers experience stress and concern about transmitting the disease to family  
43  
44 104 members and experience a constant sense of intense fear, stigmatization, and ostracism when  
45  
46 105 treating patients with COVID-19 (11). Rather than gaining appreciation, HCW's experience  
47  
48 106 violent behavior in the ED by the patients and their attendants. The reasons leading to such  
49  
50 107 attacks include fear, anxiety, propaganda about the spread of pandemic, and inappropriate anger  
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52 108 among the masses (12). Other factors causing psychological distress include conspiracy theories,  
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3 109 global socio-economic crisis, travel restrictions, adjournment of religious, sports, cultural and  
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5 110 entertainment events, panic buying, and hoarding (13). These mental challenges make the people  
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7 111 displace aggression on HCWs, serving as a direct threat to them. In reference to recent case that  
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9 112 occurred in Royal Adelaide Hospital, South Australia, where the patient who was initially  
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11 113 compliant presented with alcohol intoxication and suspected COVID-19 infection, reported to  
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13 114 ED and later became agitated at being kept in isolation, blocked the door to the ED healthcare  
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15 115 staff and set fire to their belongings (14), this behavior could potentially harm the HCWs and  
16  
17 116 also affect patient care negatively. In some places like Mexico, health care workers are being  
18  
19 117 accused of spreading the virus and are being attacked by the public, some patients have also been  
20  
21 118 observed to purposely cough or spit on health care workers (11). Health care workers are being  
22  
23 119 physically assaulted not just in Mexico (15), but cases have also been reported in the Philippines,  
24  
25 120 Australia, and the USA (12). It is clear from the current epidemics in Europe and the United  
26  
27 121 States that COVID-19 disease will place a severe strain on health systems. This effect is likely to  
28  
29 122 be more extreme in lower-income settings where health care capacity is typically limited. Paired  
30  
31 123 with the threats of WPV, the health care facility in Low-to-Middle-Income Countries (LMICs)  
32  
33 124 has become more challengeable. LMICs have reported that 60-87.5% of emergency healthcare  
34  
35 125 providers (e.g., nurses and physicians) experience some form of WPV annually (16). Looking at  
36  
37 126 the situation in South Asia, health care workers in India are being beaten, stoned, spat on,  
38  
39 127 threatened, and expelled from their homes (17). Despite dying of COVID-19 and getting  
40  
41 128 hospitalized due to lack of personal protective equipment (PPE), violence against healthcare  
42  
43 129 providers, especially doctors and nurses, is on the rise and COVID-19 wards are daily being  
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45 130 attacked by attendants of patients who succumb to complications of the disease, as quoted by  
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47 131 officials (18).  
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3 132 In Pakistan, some serious incidences of WPV against ED frontline healthcare staff are reported  
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5 133 by media at various public and private sector hospitals but many incidences are kept unreported.  
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8 134 In light of these events in the country, The Pakistan Islamic Medical Association (PIMA) said  
9  
10 135 that doctors and paramedics were facing double jeopardy. “The workforce at the healthcare  
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12 136 facilities in Pakistan is diminishing at a rapid pace due to COVID-19 since doctors and nurses  
13  
14  
15 137 are dying daily due to the lethal infection while treating patients, and on the other hand, people  
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17 138 are subjecting them to violence, which is totally unacceptable,” said a member of PIMA, while  
18  
19 139 talking to The News. In addition, he maintained that doctors and healthcare facilities were being  
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22 140 attacked on a daily basis throughout the country, and blamed the smear campaign against them  
23  
24 141 on social media, ignorance of some people and lack of security at the healthcare facilities (18).  
25  
26 142 COVID-19 Pandemic has caused the hospitals to fill up, subsequently, HCWs are being  
27  
28 143 subjected to physical assaults by the angry and frustrated patients and their attendants (18, 19).  
29  
30  
31 144 The World Economic Forum asserts that women comprise the majority of frontline healthcare  
32  
33 145 workers globally, meaning that female representation is vital in tackling the coronavirus crisis.  
34  
35 146 70% of the world's healthcare staff are made up of women. Without women in these positions,  
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38 147 women's issues could fail to be addressed throughout the crisis (20). On the contrary, female  
39  
40 148 doctors and nurses are being subjected to WPV in an unbiased manner as of yet. Female doctors  
41  
42 149 and nurses are facing the brunt of the situation in the country and many female doctors and  
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44  
45 150 nurses are staying away from healthcare facilities due to the growing violence against them, the  
46  
47 151 resources added as cited in media (18). A major incidence of stoning and destroying whole  
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49 152 COVID-19 ward in the ED of a public sector hospital took place in Karachi, during the initial  
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52 153 phase of the pandemic and similar episodes took place in other hospitals as well, but no  
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54 154 substantial actions were taken against the individual responsible for such incidences (21). The  
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3 155 outcomes of these incidences have a deleterious impact on the physical and mental health and  
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5 156 wellbeing of ED's HCWs and frontline staff. Conclusively, there have been data sets that enable  
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8 157 the depiction of workplace violence on HCW's globally, however the current exploratory study  
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10 158 is planned to seek perspectives of HCW's in ED on the effects of WPV amidst the pandemic  
11  
12 159 being a compromise to public health and HCW's efficiency.

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14  
15 160 A study conducted on 179 physicians from 5 specialties to measure the association between  
16  
17 161 experience of WPV and self-report of post-traumatic stress disorder (PTSD), depression, anxiety,  
18  
19 162 and burnout reported that one in 6 physicians experienced physical abuse and 3 in 5 verbal abuse  
20  
21 163 during their duty in the past year. PTSD symptoms were 6.7 times more commonly seen in those  
22  
23 164 who experienced physical attack (22). Another cross-sectional survey conducted in four of the  
24  
25 165 largest tertiary care hospitals in Karachi, Pakistan which found that 16.5 % of health care  
26  
27 166 workers in ED, mainly nurses, were physically assaulted and 72.5% experienced verbal abuse  
28  
29 167 (23). WPV is a significant obstacle in delivery of health care services which can be prevented by  
30  
31 168 taking timely adequate actions. In context of the current pandemic, WPV is more frequent in the  
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33 169 ED leaving the HCWs vulnerable to such kinds of threats. Figure 1 depicts various factors  
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35 170 contributing towards ED -WPV.

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41 171 **Figure 1:**

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44 172 **Methods and Analysis:**

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47 173 **Study design:**

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50 174 Qualitative exploratory research design will be employed using in-depth interviews (IDIs) and a  
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52 175 purposive sampling approach. Descriptive exploratory qualitative design tends to be electric in  
53  
54 176 data collection methods and designs based on general premises of constructive inquiry. The IDIs

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3 177 aim to explore the perceptions, challenges and experiences regarding Workplace Violence faced  
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5 178 by ED healthcare providers (Doctors, nurses, and frontline staff) during the COVID-19  
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8 179 pandemic.

### 10 180 **Study setting and Study Participants:**

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14 181 Data for this study will be collected from two purposively selected tertiary care hospitals (one  
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16 182 public and one private) from Karachi, Pakistan. The study will be conducted at the emergency  
17  
18 183 departments (ED) of Jinnah Postgraduate Medical Centre (JPMC) hospital and the Aga Khan  
19  
20 184 University Hospital (AKUH) Karachi, Pakistan. The ED of JPMC receives the heaviest number  
21  
22  
23 185 of patients. AKUH is amongst the largest private tertiary care facility in the city. The study  
24  
25 186 participants including (doctors, nurses, paramedics, pharmacists, and admin staff) will be  
26  
27 187 recruited through purposive sampling technique. We will only interview those participants who  
28  
29 188 have been working full time at ED since the COVID-19 outbreak in Pakistan. The objective to  
30  
31 189 recruit medical and administrative staff is to explore the different perspectives and experiences  
32  
33 190 of WPV at ED. Before starting the interview, the objective of the study will be shared and  
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36 191 written informed consent will be taken from the study participants. Only those respondents will  
37  
38 192 be interviewed who will give consent and willing to participate in the study. The sample size will  
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41 193 be determined through the 'saturation principle'. When the researchers would observe that no  
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43 194 more new information, themes, and sub-themes are emerging the data collection will be seized.  
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46 195 The sample size will be dependent. The purposive sampling follows the concept of theoretical  
47  
48 196 saturation, this means we will include participants until the data has reached sufficient saturation  
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50  
51 197 to meet study objectives. The anticipated data collection followed by Pilot testing will be from  
52  
53 198 July 2021 till January 2022. However we also anticipate some interruptions in data collection due  
54  
55  
56 199 to the intermittent COVID-19 surges that leads to increased workload of the frontline Health care

200 providers (anticipated number of participant and inclusion categories are also presented in the  
201 form of a table. **Table 1**)

## 202 **Eligibility Criteria**

203 The following are the criteria for inclusion and exclusion of study participants.

### 204 **Inclusion criteria**

- 205 • All ED frontline healthcare professionals including doctors, nurses, paramedics,  
206 pharmacists, administration staff who are working in the ED irrespective of their status of  
207 being a victim of workplace Violence will be included in the study.

### 208 **Exclusion criteria:**

- 209 • Refusal to consent for participation.

### 210 **Data Collection Procedure:**

211 The data will be collected through in-depth interviews with health care providers and  
212 administrative staff who have been directly or indirectly providing care of COVID-19 patients in  
213 ED. The In-depth interviews facilitate investigators to probe and understand the research  
214 question more precisely in the face-to-face direct communication. The data will be collected  
215 through a semi-structured guide with several probing options. We anticipate conducting 22-25  
216 IDIs with a group of ED frontline health care providers comprising of doctors, nurse,  
217 paramedics, admin staff and pharmacists at two tertiary care facilities (Aga Khan University  
218 Hospital, Jinnah Postgraduate Medical Centre). The data collection will be seized once sample  
219 saturation is achieved.

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3 220 Data collection will be started after seeking ERC approval from both the study sites. A written  
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5 221 consent of the head of the department of ED before starting formal data collection. After seeking  
6  
7 222 departmental permission, a list of staff will be obtained to contact with study participants. The  
8  
9 223 staff of ED will be approached through in-person, phone, and email to schedule a meeting for an  
10  
11 224 interview. The interview guide will be shared through email after scheduling the interview time.  
12  
13  
14 225 The brief biography of the interviewer will also be shared with the interviewee before starting  
15  
16 226 the interview. Data will be collected face to face interviews and on the Zoom call according to  
17  
18 227 the preference and availability of interviewee. Data will be collected by the first author(PI) along  
19  
20 228 with co-authors in Urdu and English. Before data collection, consent of recording and note-  
21  
22 229 taking will be taken from participants. If the interviewee will hesitate of being recorded his/her  
23  
24 230 interview, then only notes will be taken by the co-author. Before starting the interview, the  
25  
26 231 study's introduction and objectives will be explained. Confidentiality and anonymity of the  
27  
28 232 participants will be maintained by the interviewer. At the end of the interview, participants will  
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30 233 be asked any questions and share their feedback.  
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### 36 234 **Study Tool: The In-depth-Interview (IDI) guide:**

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39 235 The interview guide is developed after an intensive literature review, discussion with health care  
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41 236 providers and administrative staff. We have also cited some relevant literature for the pertinence  
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43 237 of our guide and tailored the available literature-based guide according to our study question(9,  
44  
45 238 24). The semi-structured guide will be pilot tested before actual data collection and will be  
46  
47 239 periodically updated during data collection. The guide is structured in a way that there is a flow  
48  
49 240 of information coming from the participants in a continuum. The guide consists of sections  
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51 241 based on demographic information, workplace related information, duration of experience of ED  
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53 242 healthcare provider, events of workplace violence and questions pertaining to their perception  
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243 and challenges on WPV during the pandemic. The IDI guide is also attached as a separate file  
 244 (Supplementary Material A) .

245 **Table 1: Number and background of HCW's to be interviewed.**

Type of HCP's	Number of participants to be interviewed
Physicians	5
Residents	5
Nurses	5
Paramedics	3
Pharmacists	2
Admin staff	2
<b>TOTAL (each site)</b>	<b>22</b>

249 **Patient and public involvement:**

250 Patients or the public WERE NOT involved in the design, or conduct, or reporting, or  
 251 dissemination plans of our research.

252 **Data Analysis:**

253 The audio recording and written notes will be transcribed and translated into English by the two  
 254 co-authors (SA, MN). The translated data will be counter checked with audio recording to ensure  
 255 the quality of transcripts by the first author (MN). The data will be analyzed through the  
 256 inductive method with the help of NVivo computer software. Analysis will consist of three main  
 257 phases: preparation, organizing and reporting (Figure 2). Preparation phase will include the  
 258 identification of the unit of analysis, which will be the interviews of ED Health Care Workers,  
 259 and then making sense of the data as a whole. Organizing phase will consist of Inductive  
 260 analysis. For Inductive analysis, categorization (making categories) and abstraction (further  
 261 simplifying and making subcategories) will be done. This will help with grouping the data, for  
 262 better understanding and generating knowledge(25) The analysis approach(thematic content  
 263 based) will use a combination of predetermined and self-derived themes facilitated by

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3 264 observation, formal and informal discussions with study participants Major themes and sub-  
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5 265 themes will be identified through detailed readings of transcripts and patterns of data by two co-  
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8 266 authors (SA, MN). A codebook of relevant quotes will be generated from the data as well as  
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10 267 concepts of interest at the outset of the study. The study themes, sub-themes, and quotes will be  
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12 268 discussed among all the co-authors and discrepancies will be discussed during the analysis and  
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15 269 interpretation of the data. The design and reporting of data will be based on the consolidated  
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17 270 criteria for reporting qualitative research (COREQ) guidelines. (26)  
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20 271 **Figure 2:**

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23 272 **Ethics and Dissemination:**

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26 273 Ethical approval for this study will be obtained from the Aga Khan University Ethical Review  
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28 274 Committee (AKU-ERC). A separate ERC will be taken for the study from JPMC as well. The  
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30 275 study objectives and voluntary nature of the study will be explained to the participants, and oral  
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32 276 informed consent will be obtained before each online interview. Confidentiality of participants  
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35 277 will be maintained by placing de-identifiers instead of names and their designations (e.g.,  
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37 278 physician P1, P2, etc. and nurse N1, N2, etc.). Also, information regarding participant's identity  
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39 279 will be removed from transcripts. All audio recordings and transcripts will be saved on a  
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42 280 password-protected computer.  
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45 281 **Discussion:**

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48 282 Our research will help to explore the perceptions ED healthcare providers (Doctors, nurses, and  
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50 283 frontline staff) regarding workplace violence during the COVID-19 pandemic. Specifically, the  
51  
52 284 findings of the qualitative study will provide a better understanding of study participants'  
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55 285 challenges with regards to WPV during Covid-19 pandemic. Finally, this study would suggest  
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3 286 strategies to improve the overall experiences of healthcare workers working in EDs of the public  
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5 287 and private hospitals during the COVID-19 pandemic. The study would also guide the  
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7 288 development of context-specific interventions to address challenges of frontline Emergency  
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9 289 department healthcare workers regarding WPV during the COVID-19. The study may also serve  
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11 290 as a strong base for a multi-center quantitative /mixed methods study at a larger sample size  
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14 291 among ED HCWs across the country.  
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3 294 **Author's Contributions:**  
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6 295 Maleeha Naseem (MN) is the principal investigator and was involved in study conceptualization,  
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8 296 study design, protocol design, IRB/ERC approval, methodology, development of study tool, data  
9  
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11 297 analysis ,medical literature review and article writing, reviewing and editing.  
12

13  
14 298 Anam Feroz (AF) is the co-Principal Investigator and was involved in study design, protocol  
15  
16 299 design, plan of analysis, methodology, medical literature review and article writing.  
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18  
19 300 Hajra Arshad (HA) was responsible for medical literature review and article writing.  
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21  
22 301 Sarah Ashraf (SAF) was responsible for medical literature review and article writing.  
23

24  
25 302 Muhammad Asim (MA) was involved in methodology and article writing.  
26

27  
28 303 Seemin Jamali: is the co-investigator and was involved in ERC approval and article writing.  
29

30  
31 304 Asad Iqbal Mian (AIM) is the co-investigator/collaborator and was involved in project feedback  
32  
33 305 as well as article writing.  
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36 306 **Competing Interest Statement:**  
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38  
39 307 The authors of this study have read and understood BMJ policy on declaration of interests and  
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41 308 declare that we have no competing interests.  
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46  
47 310 This research received no specific grant from any funding agency in the public, commercial or  
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49 311 not-for-profit sectors.  
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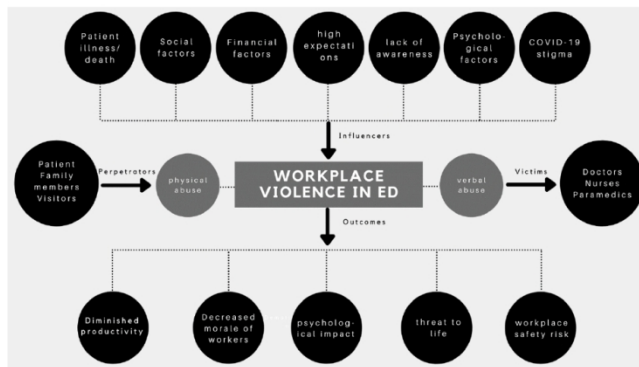
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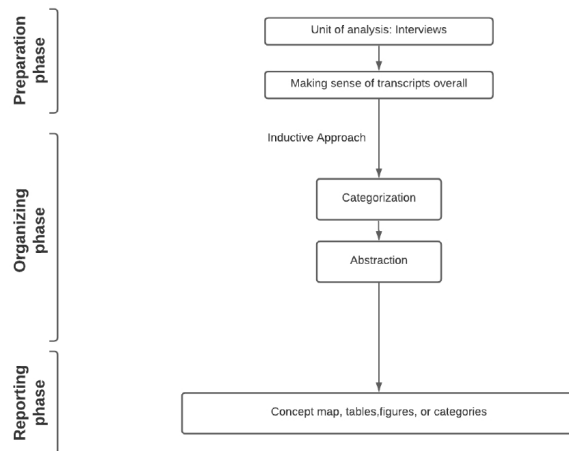
Figure 1: Conceptualization of Factors in ED-WPV during the COVID-19 pandemic



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**Figure 2: Thematic Approach for Content Analysis**



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Perceptions , challenges and experience of frontline healthcare providers in  
Emergency Departments regarding Workplace Violence during the COVID-19  
pandemic: An Exploratory Qualitative study from an LMIC

In-Depth Interview Guide

Introduction, consent taking.

Basic Information

S.no	Name (Confidential)	Age	Sex	Designation	Institution
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**Baseline Demographic Information:**

Q1.Job related:

What is your designation /job title? Since how long you are in healthcare and since how long you are working in current position?

Q2.Institution related:

Since how long you are working at this institution?

Since how long you are working at ED?

Q3. What are your perceptions regarding WPV? share your opinion.

Q4.What are your perceptions about WPV during the COVID-19 pandemic? (positive, negative influence?)

Q5.During the COVID-19 pandemic, can you describe a time when you were a victim of workplace violence( physical ,verbal harassment or threatening behavior)or you have witnessed someone become a victim of WPV whether by a patient or by family members of a patient.

Can you describe your experience as of what incited /led to that particular event?

Q6: During the COVID-19 pandemic, what are the factors that led/contributed towards the violent situation? share your experience

Probes:

- Is it contributed by patient's family? Bystanders? If yes, how?
- Do language barriers or communication issues contribute to such events? If yes, how?
- Does literacy/health education contribute? If yes,how?
- Does gender contribute? If yes how?

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- Do financial aspects contribute? Economic status , health insurance contribute or not? If yes how?
  - Does any event , like declaring DNR or death of a COVID-19 patient incite the such event?
  - Does declaring a patient COVID-19 positive contribute? If yes how?
  - Does handing over the dead body of a COVI-19 patient or instructions for burial contribute? If yes how?

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Q7: During the COVID-19 pandemic, are there any specific situations during which such violent events /interactions tend to occur more frequently(admission, triage, any critical situation)? If yes please describe your experience

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Q8:What are your perceptions regarding the consequences of WPV that occurred during the COVID-19 pandemic?

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- For physicians, nurses, frontline healthcare providers, paramedics?
  - For the patients
  - For the ED system/ healthcare system?
  - For the society?

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Q9: In your opinion, what can be done to prevent WPV in the ED during COVID-19 pandemic?

- By Doctors, frontline staff?
- Hospital administration
- By patients?
- Any recommendations?

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Q10: What are your perceptions and experience regarding the support your institution is providing to combat workplace violence during COVID-19 pandemic

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Q11: As an individual what challenges you face and how do you cope with workplace violence that has occurred during COVID-19 crisis? Share your experience.