Ethics challenges in implementing the International Health Regulations in Pakistan during the COVID-19 pandemic

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Abstract

Background: Pakistan, with its diverse points of entry, faced several challenges with implementing the International Health Regulations (IHR) ethically during the COVID-19 pandemic.

Aim: To explore the perceptions of point of entry health workers regarding the ethics challenges in implementing the IHR during the COVID-19 pandemic.

Methods: From December 2022 to March 2023, this qualitative study conducted 10 focused group discussions and key informant interviews with 40 participants from 10 points of entry in Pakistan and reviewed COVID-19 containment guidelines. The data generated were transcribed, translated into English and analysed manually. The thematic analysis focused on the core ethics principles, including optimization of population health versus autonomy, distributive justice versus equity, trustworthiness versus privacy and confidentiality, and the impact of sanctions and restrictions on vulnerable populations.

Results: The study identified ethics challenges relating to containment policies, public health measures (testing, quarantine and isolation), travel restrictions, equitable resource distribution, and emergency operations. These challenges were grouped under 3 main categories, according to the IHR thematic areas: prevent, detect and respond. Respondents said it was difficult to balance between the public health measures and individual rights, address discrimination and stigmatization, and ensure fairness and justice in vaccine distribution and travel restrictions.

Conclusion: Navigating ethics challenges relating to IHR implementation during health emergencies requires transparent communication, cultural sensitivity, and a commitment to equity and justice. It is important to incorporate ethics considerations into national emergency response plans to guide decision-making, safeguard individual rights and promote collective wellbeing.

Keywords: International Health Regulations, IHR, COVID-19, pandemic response, point of entry, containment, public health measures, ethics, Pakistan

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Introduction

The International Health Regulations (IHR) 2005 imposes legal obligations on State Parties to prevent, detect and respond to infectious diseases while balancing between individual rights and public health and with minimal disruption to international traffic and trade (Article 2)(1).

Points of entry (POEs) are key areas for effective application of public health measures for preventing cross-border disease transmission. Pakistan has a 1046 km coastline along the Arabian Sea and the Gulf of Oman and shares borders with Afghanistan, Islamic Republic of Iran, China, and India. Pakistan has 18 international POEs: 9 airports, 3 seaports, and 6 land crossings (Table 1) (2). Authorities at the country's POEs have been actively involved in surveillance activities to limit cross-border transmission of infections and their impacts on the society, while preventing unwarranted travel and trade restrictions as indicated in the IHR 2005 (3). The IHR demands that countries report any observed public health event.

Table 1 Points of entry in Pakistan

Types of entry	Location
Airports (9)	Islamabad International Airport, Jinnah International Airport Karachi, Allama Iqbal International Airport Lahore, Bacha Khan International airport Peshawar, Quetta International Airport, Multan International Airport, Sialkot International Airport, Faisalabad International Airport, and Gawader International Airport
Seaports (3)	Port Bin Qasim, Gawader Port , Karachi Seaport Kemari
Ground/land crossings (6)	Wagah, Chaman, Taftan, Torkhum, Khokhrapar, Sust

POEs are a complex work environment because of the influx of diverse people and goods from different parts of the world and their unique cultural backgrounds. Therefore, it is imperative to implement adequate health and safety protocols to mitigate associated transmission risks at all POEs (4). Operating 24 hours of everyday, these entry points provide health services continuously, including health screening and surveillance, immunization, medical care and treatment for ill travellers, health education, vector control, quarantine and isolation, and reporting (5). Response at the POEs is diverse, ranging from involvement with travellers to handling political pressure and public anxiety and this requires technical and communication skills, up-to-date knowledge of changing behaviours, reporting of accurate data, and timely response.

The COVID-19 pandemic posed significant scientific and ethics challenges globally, highlighting the lack of preparedness scientifically and ethically. The first COVID-19 case in Pakistan was reported on 26 February 2020 (6). Pakistan adopted a comprehensive whole-of-government approach to response, focusing on implementing pharmaceutical and non-pharmaceutical interventions while preventing cross-border transmission of variants of concern (variants escaping immunity) (6). Among the first measures was the closure of POEs. However, since the country could be locked down for a long time, there was gradual easing of the lockdown policy, including opening of POEs. However, with the lengthy duration of the pandemic and the multiple waves and virus mutations, there were several public health measures and restrictions, which raised ethics concerns (2).

The comprehensive whole-of-government approach focused on non-pharmaceutical interventions and mass vaccination while preventing cross-border transmission (7). This enhanced disease surveillance, facilitated disease mapping, and enabled the identification of emerging variants. Timely, evidence-based decision-making contributed to slowing the disease transmission and the success of Pakistan's COVID-19 response (8). The pandemic has tested the effectiveness of health measures and their implications on individual rights and public health.

This study therefore examined the ethics dimension of the impact of IHR implementation, focusing on the moral and ethical values during health emergencies.

Methods

This was a qualitative study conducted between December 2022 and March 2023 to explore the perceptions of healthcare workers (HCWs) on the public health policies adopted during the COVID-19 pandemic and their ethical implications in Pakistan. We conducted in-depth interviews with key informants and focused group discussions (FGDs) and reviewed COVID-19 containment documents.

A combination of convenience and purposive sampling techniques was used to select 10 POEs, including 6 airports, 2 seaports and 2 land borders based on accessibility, feasibility and volume of cross-border traffic. The key informants were healthcare workers involved in implementing IHR and had 3-10 years of service experience at the POEs, were 50 years old or younger, worked in rotations during the COVID-19 pandemic, and had at least one IHR POE implementation training. Data saturation guided the sample size determination, using key informant interviews and 10 FGDs with 40 participants.

A focus group interview guide containing semi-structured questions and probes relating to existing literature on IHR and perceived ethics challenges during the COVID-19 pandemic was used for the FGDs and in-depth interviews. The interview guide was verified, pre-tested among 5 participants and revised to ensure its effectiveness and comprehensibility. Each key informant interview lasted approximately one hour and 30 minutes and was recorded, transcribed verbatim into English, coded, and analysed thematically.

Data analysis was done manually by repeatedly reviewing the transcripts until a comprehensive understanding of the content was gained. The analysis involved segmenting the data into codes based on responses to the research questions. Similar concepts were grouped together and domains were manually developed by organising similarly coded text segments. Sub-codes were identified within the domains to further refine the analysis.

The thematic analysis focused on the core ethics principles, including optimising population health versus autonomy, distributive justice versus equity, trustworthiness versus privacy and confidentiality, and the impact of sanctions and restrictions on vulnerable populations. Patterns and percentages within the domains were analysed to derive insights from the data.

Ethics approval

The study was approved by the Institutional Ethical Review Committee of the Health Services Academy Islamabad via assigned protocol No.7-82/IERC-HSA/2022-78. The Border Health Services of Pakistan, which is the focal point for IHR implementation at POEs, granted permission for the study. Prior to their involvement, each participant provided either written or verbal consent to record their discussions or in-depth conversations. Participants were assured that their information would be kept confidential and that no identifiers would be used for their data.

Results

Forty POE staff participated in the key informant interviews and FGDs, with a mean age of 35.5 years ±10.6 (SD) (Table 2). The majority were male (90.0%) and most had graduate or postgraduate qualifications (60.0%). Most of them were married (94.3%) and 30.0% each were

from Punjab and Sindh. Sixty percent worked at the airports, 20.0% at land borders and 20.0% at the seaports. About 70.0% had professional education, with a varied and average 10 years of work experience in public health emergency management. The thematic areas or domains were classified according to the prevent, detect and respond core capacities as outlined in IHR 2005 (Table 3).

Prevent: containment policies

The COVID-19 containment policies instituted by the National Command and Control Centre (NCOC) raised ethical dilemmas of balancing between public health, individual rights and distributive justice. It caused challenges as the pandemic evolved.

Pharmacological and non-pharmacological interventions

The government implemented different public health measures, including lockdowns, travel restrictions, border closures, physical distancing, mask mandates, hygiene practices, and mass vaccination, to combat COVID-19. However, our study participants said these actions disproportionately affected the vulnerable populations, such as labourers and blue-collar workers abroad, raising concerns about international relations, diplomacy, discrimination, distributive justice, and racism. Mandatory mask-wearing at airports and during flights, while crucial for risk reduction, sparked ethical debates, with some perceiving it as an infringement of their individual rights and autonomy. One FGD participant said:

> *"I saw people going mad when they were mandated to wear mask at the airport and during flights. It caused upheavals at airports, discomfort for implementers and ethical dilemmas."*

Another FGD participant said:

> *"Well, there was a great imbalance. Some individuals, including patients and some obese people, had breathing difficulties due to mask wearing, it was extremely difficult for them during the summers months. It was a person's choice to wear a mask or not versus mandatory community requirement to wear a mask. A person may take the risk of getting infected with the disease by not wearing a mask, at the same time by wearing a mask they protect themselves and their community. Both are right, but both cannot be done at the same time."*

An FGD participant said:

> *"Mandatory mask-wearing can be seen as a sacrifice of an individual's freedom for the greater good of society because it was not easy to perform routine activities in the type of climate we have in Pakistan while wearing a mask."*

Table 2 Socio-demographic characteristics of respondents

Characteristic	Respondents (N = 40)
Mean age	35.5 years ±10.6 (SD)
Gender (Male)	36 (90.0%)
Marital status	
Single	2 (5.0%)
Married	38 (95.0%)
Educational level	
Graduate and postgraduate	24 (60.0%)
Intermediate education	10 (25.0%)
Matriculation	6 (15.0%)
Province	
Punjab	12 (30.0%)
Sindh	12 (30.0%)
Khyber Pakhtunkhwa	8 (20.0%)
Islamabad Capital Territory	4 (10.0%)
Baluchistan	4 (10.0%)
Point of entry	
Airport	24 (60.0 %)
Land crossing	8(20.0%)
Seaport	8 (20.0%)
Years of work experience	
15–20	21 (52.5%)
10–15	9 (22.5 %)
6–10	7(17.5 %)
2–5	3 (7.5 %)

Border closures

Although the border closures aimed to prevent cross-border transmission, it caused Pakistani expatriates abroad to be stranded, resulting in severe financial strain. It adversely impacted trade, tourism and diplomatic relations. Expats endured financial hardships, including income loss, debt accumulation and rising living cost, with resultant heavy toll on their mental and emotional wellbeing. One of the key informants narrated how an expat he screened at their POE said:

> *"I was stranded in a foreign country and it has been incredibly tough financially. I was forced to stay in luxury hotels during quarantine while my socioeconomic status was so low. It added to my frustration. Many times I pleaded for financial help and I felt stigmatized and exploited. I never imagined I could face such hardship just because of border closure aimed at controlling the spread of a disease."*

Mandatory vaccination: no harm, non-maleficence

The mandatory travel vaccination is regarded as a balancing act between individual rights and the greater good of the community, however, it infringes on individual autonomy and physical sovereignty. Utilitarianism justifies it for enhancing the overall wellbeing and safeguarding the health of individuals and communities. Deontologically, it is a moral obligation to secure the health and safety of others. While implementing the public health measures, our study participants said the concerns of travellers and masses in general were not considered. They said the people

Table 3 Summary of themes and sub-themes: core issues identified from the transcribed data

Theme	Sub-theme
Prevention	Containment policies
	Pharmacological and non-pharmacological interventions
	Border closures
	mandatory vaccination: no harm, non-maleficence
Detect	Implementation of public health measures
	Testing
	Mandatory testing for returning hajj pilgrims
	Mandatory quarantine and isolation
	Digital tracing apps and the use of technology artificial intelligence
Response	Travel restrictions
	Medical countermeasures: essential medical supplies
	Emergency operations: repatriation of stranded Pakistanis

were not counselled about vaccination, but rather forced to take the vaccine. This led to resentment and refusals. They said certain vaccine brands from countries that were considered to be unfriendly were also considered unsafe. One FGD participant said:

> *"Those who refused to get vaccinated were not allowed to travel. Also, there was the issue of acceptance by countries of the type of vaccine from certain manufacturers."*

The State bears responsibility for vaccination policy, ensuring availability, accessibility, acceptance, and quality. Making vaccination compulsory limits individual rights, the State should implement public health obligations without violating human rights. One FGD participant stated:

> *"I believe forcing travellers to get a particular vaccine before they can travel is a way of promoting the business of certain high-end brands and rich countries. It is discriminatory against the people and against vaccine producers that are not from the rich countries."*

Denying unvaccinated individuals their boarding rights is a restriction of people's freedom to travel and the right to mobility, which impacts their personal and professional lives. One FGD participant recounted:

> *"This practice disproportionately affected certain groups of people who could not get vaccinated due to medical reasons or those who did not want to be vaccinated within the context."*

It was an ethical dilemma trying to balance public health and individual rights, fairness, justice, and privacy. The healthcare workers said they had to do a lot of counselling to dispel negative propaganda regarding vaccine brands and motives, and they perceived this as additional responsibility.

Detect: testing, mandatory quarantine and isolation

Pakistan, like other countries, screened travellers and conducted contact tracing and quarantine for suspected or close contacts of confirmed cases. Such measures raised ethical concerns about restricting individual liberty and movement. Some FGD participants said:

> *"Such measures led to potential discrimination and stigmatization of individuals who were at higher risk for the disease, who were regarded as suspects or positive cases at POEs."*

> *"Physical distancing was observed for disembarking passengers. In my opinion, the use of appropriate personal protective equipment in passenger arrival lounges and other public areas helped prevent the spread of the virus."*

The resultant catastrophic health care expenditures highlighted the challenges faced by vulnerable populations in accessing essential health care services during the pandemic.

> *"The subsequent medical consultations, accommodation charges for quarantine or isolation, and additional out-of-pocket costs of health care services caused substantial financial strain on many people who had limited resources."*

Mandatory testing for returning hajj pilgrims

Umrah and Hajj were halted because of the COVID-19 pandemic, Saudi Arabia hosted one million pilgrims in 2022 after a 2-year pause. To mitigate cross-border transmission risk, mandatory testing was enforced for all returning pilgrims at all international airports in Pakistan based on the WHO mass gathering guidelines. Pilgrims were required to fill the Pass Track application and undergo a 10-day home quarantine if tested positive. One FGD participant said:

> *"While measures such as mask-wearing, physical distancing and vaccination resonate Islamic principles*

of safeguarding oneself and others, they also impinged religious freedom with the suspension of Hajj for 2 years, limiting the number of pilgrims and prohibiting touching or kissing the Hajr-e-Aswad (the sacred stone set in the eastern corner of the Ka'bah)."

Digital tracing and artificial intelligence-enabled apps raised passenger confidentiality concerns

The collection of personal information for COVID-19 tracking through the health declaration forms raised concerns regarding privacy, autonomy and the need for informed consent. One key informant said:

"Majority of passengers were reluctant to provide their detailed personal information, saying: 'Brother, what will you do with this much information about me when I am absolutely fine, tested negative and wearing protective gears? You people are building databases using COVID-19 as a platform'."

Mandatory testing

Amid the escalation of COVID-19 cases globally during the third wave of the pandemic in April 2021, a revised regulation for inbound travellers was enforced, requiring proof of pre-departure negative COVID-19 polymerase chain reaction (PCR) test, rapid antigen test (RAT) on arrival at airports and land borders, and mandatory quarantine for positive cases. There were concerns about the practicality and cost-effectiveness of the mandatory testing and respondents perceived the mandatory on-arrival RAT as a violation of a person's right to privacy and self-determination. One FGD participant said:

"The mandatory testing protocol caused long queues and overcrowding, which increased the transmission risk and raised questions about the practicality and cost-effectiveness of implementing mandatory testing at POEs."

Majority of the key informants said:

"There were long queues and passengers became impatient. It was difficult for older passengers, especially those requiring wheelchairs."

One FGD participant said:

"Many passengers underwent testing unwillingly because of personal, religious or other perceptions."

There were also concerns about discrimination and equity:

"Passengers from certain countries, based on epidemiological criteria, percentage positivity and reporting of emerging variants of concern, were disproportionately affected by the mandatory testing and this raised concerns about justice and equal treatment."

Respond: travel restriction

The travel restriction was complex and multifaceted. It was implemented to prevent cross-border transmission, but it created several ethics dilemmas. Several FGD participants recounted their experiences:

"Apart from the potential to violate the rights of individuals to freedom of movement, I believe the restrictions caused job losses, disrupted routines and family reunions and had significant negative impact on the lives of affected people."

"I think the travel restrictions have disproportionately affected marginalized groups, such as deportees and migrant workers who had limited access to resources. It supported perpetuation of inequalities and discrimination."

"In my opinion, country-specific travel restrictions imposed on passengers from countries with high infection rates or reporting variant of concerns caused stigmatization and made people to hide information regarding their country of origin."

"Was it [the travel restriction] necessary; I'm still not sure."

The travel restrictions and border closure also caused geopolitical and diplomatic tensions, as one FGD participant stated:

"I observed that some of the countries that were labelled as 'high-risk' or 'high-transmission' areas were very fair in sharing their COVID-19 related information and results of their genomic surveillance. This earned them travel restrictions and produced a negative impact on trade, travel and other diplomatic relations. Their information was not protected by IHR."

Medical countermeasures: essential medical supplies

The equitable distribution of resources, particularly vaccines and medicines, emerged as a crucial theme, highlighting the importance of a unified global response to health emergencies to maximize utility, ensure fairness and non-discrimination in resource distribution. Respondents noted the complexity surrounding the principle of equity and fairness related to pandemic response at POEs due to several factors such as the differences in vaccine safety, effectiveness and logistic challenges. One FGD participant said:

"I am of the opinion that travel restrictions may disrupt the global pandemic response, potentially leading to decreased coordination and collaboration among countries, adversely affecting global health and international cooperation, and resulting in inefficiencies and negative outcomes."

The restrictions severely affected supply chains globally and affected essential medical supplies. One FGD participant said:

"In my understanding and knowledge, IHR emphasizes the need to minimize harm to communities while addressing the pandemic effectively and equitably."

Emergency operations: repatriation of stranded Pakistanis

Pakistanis and other transit passengers stranded at different destinations across the world due to the ban on incoming flights to Pakistan posed a special concern for the government. FGD participants, including a key informant at one of the major airports, said:

"Special flights were organized with mandatory

PCR testing on arrival and compulsory quarantine as a 'prerequisite' for entry. I am a witness that the digital tracing application Travellers Surveillance Management Information System (TSMIS) proved helpful in locating incoming COVID-19 positive passengers."

"But the repatriation measures raised privacy concerns and resentment among passengers, as individuals were required to provide personal information for contact tracing."

"I believe such measures should have been implemented in consistence with ethics principles for individuals who may have been disproportionately affected."

Discussion

To the best of our knowledge, this study is the first attempt to explore the ethical and human rights angle to the controversies surrounding implementation of IHR for pandemic response in Pakistan. There were several challenges with implementation of IHR during the Public Health Emergency of International Concern (PHEIC) at POEs. Pakistan emerged as one of the countries that effectively addressed the COVID-19 crisis, leading to a significant decrease in transmission rates and successful curve flattening. This achievement was attributed to the coordinated, evidence-based strategy backed by strong national leadership (*8*).

The key ethics-related themes and challenges that emerged from our findings were the containment policies, public health measures and travel restrictions.

Containment policies: Prevent

The COVID-19 containment policies instituted by the NCOC caused several ethics dilemmas. The utilitarianism principle emphasizes the need to maximize overall wellbeing, and this guided the decision during the pandemic to prioritize health system needs for the greatest benefit (*9*). The complexity of the pandemic made it necessary to prioritize health system measures. Mandatory mask-wearing, seen as a moral obligation to protect oneself and others, was widely accepted and deemed ethically justifiable by the beneficence principle (*10*). The essential physical distancing, mask mandate, lockdown, and travel restriction implemented by governments worldwide to mitigate the threat from the pandemic promptly and effectively imposed additional costs on individuals, valuing the group over the individual (*11,12*).

Balancing public health imperatives with the rights of individuals posed serious challenges (*13*). The Pakistani Government implemented a range of measures, which were essential for controlling the virus but disproportionately affected vulnerable populations, including labourers and blue-collar workers abroad. It raised concerns about international relations and distributive justice and equity.

Participants in this study expressed concerns about the ethics implications of the mandates such as border closure, which aimed to prevent disease transmission but caused Pakistani expatriates abroad to be stranded, caused severe financial strain and impacted trade, tourism and diplomatic relations. To ensure adherence, implementing measures that conform to ethics principles requires careful considerations for humans and their impact on the masses, as well as equitable accommodation for disproportionately affected individuals (*14*). Apart from the stigma associated with testing positive for COVID-19, the mandatory testing of passengers from certain countries based on their epidemiological outlook raises questions of equality (*15*).

The deontological normative duty-based approach, supplemented with Kantian principles, focuses on doing the right thing or following a moral code regardless of the consequences of the action (*16*). During the COVID-19 pandemic, decision-making regarding public health measures involved a balance between personal autonomy and adherence to government strategies aimed at curbing disease transmission. This posed ethical dilemmas because actions were based on anticipated consequences, necessitating careful consideration of infection rates, economic impact and protection of individual freedom, particularly for vulnerable groups (*8,9*). The approach adopted by the government raised concerns about human rights obligations during public health emergencies. Policymakers and public health officials must consider ethical implications at POEs during public health emergencies, implementing measures that protect public health while respecting individual rights and freedom. The government should ensure that data collection is transparent, fair and secure.

Governments worldwide swiftly implemented a range of measures, including mask mandate, lockdown, quarantine, and isolation, in response to the pandemic (*17*). Many governments transitioned from a state of complacency to an urgent response mode to tackle the highly contagious public health crisis (*18*).

A study in Uganda assessed the initial COVID-19 containment measures and highlighted shortcomings in meeting key ethics criteria. It notes the importance of ethical legitimacy for the effectiveness of public health measures. Integrating ethical legitimacy into response is vital to ensure the efficacy of pandemic control strategies alongside evidence-based approaches (*19*).

Mandatory mask-wearing at airports and during flights, though crucial for risk reduction, sparked debates over individual autonomy and rights. Similarly, testing, quarantine and vaccination represented a delicate balance between individual autonomy and public health imperatives (20). A study in California highlighted the effectiveness of face masks in preventing SARS-CoV-2 transmission. Any mandatory mask-wearing policy must respect individual rights, consider cultural differences and be part of a comprehensive strategy that includes physical distancing and hand hygiene (*10*). It must consider the permissibility of violating some people's autonomy in favour of the maximal wellbeing of the group (*21*). The principles of autonomy and individual rights provide

an overarching scope for the universal enjoyment of human rights, including equality, non-discrimination, transparency, access to information, accountability, and access to justice for vulnerable populations (*22*).

Implementation of public health measures: Detect

The public health measures such as screening, contact tracing and quarantine at POEs raised ethical concerns related to individual liberty, privacy and confidentiality. Participants noted that these measures could cause discrimination and stigmatisation. There were concerns about privacy and confidentiality versus efficient and effective IHR implementation and pandemic response. The privacy concerns emerged as a crucial ethics issue during the pandemic response because accurate data is needed for designing effective interventions (*23*). The collection of proximity and contact tracing data through mobile tracing applications raised privacy concerns, necessitating transparent justification and clear description of its scope and duration (*24*). The widespread use of digital tracing tools for COVID-19 tracking introduced challenges in balancing privacy and ensuring the right to health (*25*).

Measures to ensure privacy varied widely, from minimal data collection to extensive real-time information gathering, highlighting the need for careful consideration of privacy rights alongside public health goals (*26*). South Korea and Taiwan used rigorous contact tracing and surveillance methods to contain the virus, which proved effective but sparked privacy and government overreach concerns (*27*).

Mandatory testing for returning Hajj pilgrims, in line with the WHO mass gathering guidelines, was another significant measure. Despite its necessity, such testing posed ethics dilemmas related to religious freedom and individual rights. The scientifically proven best practices to limit the spread of the virus, such as physical distancing, mass community testing, early intervention, contact tracing, mask-wearing, and hand hygiene involved restrictions of individual freedom, which often met with public resistance and hesitancy (*28*). The Pakistani society is generally considered to be a collectivistic society, with people prioritising the needs and goals of their group over their own needs and goals (*29*). The diverse cultural and religious beliefs conflicted with a few of the pandemic response strategies such as compulsory vaccination and data sharing (*30*).

Travel restrictions: Respond

Multiple and complex travel restrictions were implemented to prevent cross-border spread of COVID-19. However, these restrictions raised ethics dilemmas related to individual rights, freedom of movement and equity. Participants in our study said the restrictions caused job losses, family separations, disrupted routines, and disproportionately affected marginalized groups such as deportees and migrant workers. The issue of equitable application of medical countermeasures, such as vaccine distribution, emerged as a crucial theme. Participants highlighted the need to ensure fairness and non-discrimination in resource distribution as an essential factor for effective pandemic response. They noted that the challenges related to uncertainty about the safety and effectiveness of the vaccines and poor logistics created ethical dilemmas. They noted also the need for equitable distribution of resources, such as vaccines and medicine supplies as part of a unified global response to ensure fairness, non-discrimination and protection of vulnerable groups. They said the differences in vaccine safety, effectiveness, logistics, and storage made the situation complicated and that the mandatory vaccination for travel presented a conflict between individual rights and the collective good, raising issues of bodily autonomy and discrimination. They felt that the restrictions on individuals who could not be vaccinated due to medical reasons or conscientious objections posed a challenge to fairness, equity and justice (*24*).

The responsibility for developing and ensuring implementation of the vaccination policy lies with the State, including ensuring availability, accessibility, acceptance, and quality of vaccines (*31*). However, making vaccination mandatory may impose limitations on individual's rights, thus making it a necessity to carefully plan how to meet the vaccination requirements without infringing on the rights of people (*32*).

The travel restrictions, particularly due to the vaccination status, have great implications for fairness and justice (*33*). Pakistan, which has one of the largest diaspora community globally, was significantly impacted, thus highlighting the need to align control with ethics principles to ensure equitable treatment (*34*).

Emergency operations: Repatriation

The repatriation of stranded Pakistanis posed significant challenges. The mandatory PCR testing on arrival and compulsory quarantine were necessary but raised privacy concerns. Balancing public health measures with individuals' rights, fairness and justice requires continuous dialogue and ethical considerations to ensure equitable and effective response (*35*).

Strengths and limitations of the study

Our study adopted a rigorous methodology. It used both focus group discussions and in-depth interviews, thus allowing a thorough exploration of the perceptions and experiences of healthcare workers regarding the implementation of IHR at POEs in Pakistan during the COVID-19 pandemic. The interview guide was verified and pre-tested to ensure that it was effective and clear. Diverse sampling was achieved by including participants from various POEs, such as airports, seaports and land borders to ensure comprehensive coverage. Thematic analysis of the collected data enabled the identification of key themes and patterns, enhancing the depth of understanding of the ethical challenges faced while implementing IHR.

The sample size of 40 participants across 10 FGDs was the main limitation of the study. However, this was necessary because of the heavy workload of HCWs at POEs due to the heavy influx of travellers, and diversity was ensured by including participants from various POEs. This limits generalizability of the findings to other settings or populations. The convenience and purposive sampling method used to select POEs and participants may have been a source of selection bias by causing overrepresentation or underrepresentation of certain perspectives or experiences. Translating the collected data into English may have caused a loss of nuance or cultural context, potentially impacting the accuracy of analysis and interpretation of findings.

Conclusion

The findings of this study highlight the challenges often faced in implementing IHR during emergencies and highlights the importance of conducting ethics assessment when making policies for public health response. Reforms in international legal frameworks relating to health emergencies are needed to make them more humanistic. Balancing individuals' rights with public health measures remains crucial and requires comprehensive public health communication that can help avoid knee-jerk reflexes to new discoveries.

Cross-border collaboration and cooperation are essential for coordinating response and harmonizing control measures at borders. Prioritizing ethics considerations during policymaking will ensure transparency and help address the needs of vulnerable populations during emergencies. Developing and updating national preparedness and response plans, along with capacity-building for healthcare workers, is crucial to enhance preparedness. A proactive approach, including support mechanisms for expatriates and stranded citizens, is necessary to address financial hardships and emotional distress during potential border closures. Transparent communication, cultural sensitivity and a commitment to equity and justice are essential in navigating ethical dilemmas during public health emergencies.

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Défis éthiques liés à l'application du Règlement sanitaire international au Pakistan pendant la pandémie de COVID-19

Résumé

Contexte : Le Pakistan, avec ses différents points d'entrée, a été confronté à plusieurs défis pour mettre en œuvre le Règlement sanitaire international (RSI) de manière éthique pendant la pandémie de COVID-19.

Objectif : Étudier les perceptions des agents de santé aux points d'entrée en ce qui concerne les défis éthiques dans l'application du RSI pendant la pandémie de COVID-19.

Méthodes : De décembre 2022 à mars 2023, la présente étude qualitative a permis de mener 10 discussions de groupe ciblées et des entretiens avec des informateurs clés auprès de 40 participants de 10 points d'entrée au Pakistan et d'examiner les lignes directrices relatives aux mesures de confinement liées à la COVID-19. Les données générées ont été transcrites, traduites en anglais et analysées manuellement. L'analyse thématique était axée sur les principes éthiques fondamentaux, y compris l'optimisation de la santé de la population par rapport à l'autonomie, la justice distributive par rapport à l'équité, la fiabilité par rapport au respect de la vie privée et de la confidentialité, et l'impact des sanctions et des restrictions sur les populations vulnérables.

Résultats : La présente étude a permis de cerner les problèmes éthiques liés aux politiques de confinement, aux mesures de santé publique (dépistage, quarantaine et isolement), aux restrictions relatives aux déplacements, à la répartition équitable des ressources et aux opérations d'urgence. Ces défis ont été regroupés en trois grandes catégories en fonction des domaines thématiques du RSI : prévention, détection et riposte. Les personnes interrogées ont déclaré qu'il était difficile de trouver un équilibre entre les mesures de santé publique et les droits individuels, de lutter contre la discrimination et la stigmatisation et d'assurer l'équité et la justice dans le cadre de la distribution des vaccins et des restrictions relatives aux déplacements.

Conclusion : Relever les défis éthiques liés à la mise en œuvre du RSI dans les situations d'urgence sanitaire exige une communication transparente, une sensibilité culturelle et un engagement en faveur de l'équité et de la justice. Il est important d'intégrer des considérations éthiques dans les plans nationaux d'intervention d'urgence afin d'orienter la prise de décision, de protéger les droits individuels et de promouvoir le bien-être collectif.

التحديات الأخلاقية في تنفيذ اللوائح الصحية الدولية في باكستان خلال جائحة كوفيد-19

نادية نورين، فايزة بشير، كمران رحمن خان، تمكين غفور، نافيد الله خان، سابين أفضل

الخلاصة

الخلفية: نظرًا لتنوع نقاط الدخول إلى باكستان، واجه البلد العديد من التحديات الأخلاقية المتصلة بتنفيذ اللوائح الصحية الدولية خلال جائحة كوفيد-19.

الهدف: التعرف على تصوُّرات العاملين في مجال الرعاية الصحية في باكستان بشأن تنفيذ اللوائح الصحية الدولية على نحوٍ أخلاقي خلال جائحة كوفيد-19.

طرق البحث: أجرت هذه الدراسة النوعية، التي امتدت في الفترة من كانون الأول/ ديسمبر 2022 إلى آذار/ مارس 2023، عشر مناقشات جماعية مركزة ومقابلات مع مصادر معلومات رئيسية شملت 40 مشاركًا من عشر نقاط دخول في باكستان، واستعرضت المبادئ التوجيهية لاحتواء كوفيد-19. ونُسخت البيانات الناتجة عن ذلك وتُرجمت إلى اللغة الإنجليزية وحُلِّلت يدويًّا. وركّز التحليل المواضيعي على المبادئ الأخلاقية الأساسية، بما في ذلك الوصول بصحة السكان إلى المستوى الأمثل في مقابل التمتُّع بالاستقلال الذاتي، وعدالة التوزيع في مقابل الإنصاف، والجدارة بالثقة في مقابل التمتُّع بالخصوصية والسرية، وأثر العقوبات والقيود على الفئات السكانية الضعيفة.

النتائج: حددت الدراسة التحديات الأخلاقية المرتبطة بسياسات الاحتواء أثناء الجائحة، وتدابير الصحة العامة (مثل الخضوع للاختبار، والحجر الصحي، والعزل)، والقيود المفروضة على السفر، والتوزيع العادل للموارد، وعمليات الطوارئ. وقد صُنِّفت هذه التحديات تحت ثلاث فئات رئيسية، هي: الوقاية، والاكتشاف، والاستجابة. وأوضح المستجيبون أنه كان من الصعب تحقيق التوازن بين تدابير الصحة العامة والحقوق الفردية، والتصدي للتمييز والوصم، وضمان الإنصاف والعدالة في توزيع اللقاحات والقيود المفروضة على السفر.

الاستنتاجات: يتطلب التصدي للتحديات الأخلاقية المتصلة بتنفيذ اللوائح الصحية الدولية أثناء الطوارئ الصحية الشفافية في التواصل، ومراعاة الجوانب الثقافية، والالتزام بالإنصاف والعدالة. ومن المهم بمكان إدراج الاعتبارات الأخلاقية في الخطط الوطنية للاستجابة للطوارئ من أجل توجيه عملية صنع القرار، وحماية الحقوق الفردية، وتعزيز العافية الجماعية.

References

1. Kamradt-Scott A. The International Health Regulations (2005). Int Organ Law Rev. 2019;16(2):242–271.
2. World Health Organization. Joint external evaluation of IHR core capacities of Pakistan. Geneva: World Health Organization, 2016. https://extranet.who.int/sph/sites/default/files/document-library/document/JEE Report Pakistan 2016.pdf.
3. Akhtar H, Afridi M, Akhtar S, Ahmad H, Ali S, Khalid S, et al. Pakistan's response to COVID-19: overcoming national and international hypes to fight the pandemic. JMIR public Heal Surveill. 2021;7(5):e28517.
4. World Health Organization. IHR benchmark. Geneva: World Health Organization, n.d. https://ihrbenchmark.who.int/document/17-points-of-entry-and-border-health.
5. Mouchtouri VA, Christoforidou EP, An der Heiden M, Menel Lemos C, Fanos M, Rexroth U, et al. Exit and entry screening practices for infectious diseases among travelers at points of entry: looking for evidence on public health impact. Int J Environ Res Public Health 2019;16(23). DOI: 10.3390/ijerph16234638.
6. World Health Organization. WHO extends support to Pakistan as it confirms its first two cases of COVID-19. World Health Organization, 2020. https://www.emro.who.int/pak/pakistan-news/who-extends-support-to-pakistan-as-it-confirms-its-first-two-cases-of-covid-19.html.
7. Chakraborty C, Sharma AR, Bhattacharya M, Lee S-S. A detailed overview of immune escape, antibody escape, partial vaccine escape of SARS-CoV-2 and their emerging variants with escape mutations. Front Immunol. 2022;13:801522. DOI: 10.3389/fimmu.2022.801522.
8. Emmanuel F, Hassan A, Ahmad A, Reza TE. Pakistan's COVID-19 prevention and control response using the World Health Organization's guidelines for epidemic response interventions. Cureus. 2023;15(1):e34480. doi: 10.7759/cureus.34480.
9. Savulescu J, Persson I, Wilkinson D. Utilitarianism and the pandemic. Bioethics 2020;34(6):620–32. doi: 10.1111/bioe.12771.
10. Ho A, Huang V. Unmasking the ethics of public health messaging in a pandemic. J Bioeth Inq. 2021;18(4):549–559. DOI: 10.1007/s11673-021-10126-y.
11. Sarıışık M, Usta S. Global effect of COVID-19. COVID-19 Hosp Tour Ind A Res Companion. 2021;41–59. https://api.semanticscholar.org/CorpusID:244249303.
12. Foo C De, Verma M, Tan SM, Haldane V, Reyes KA, Garcia F, et al. COVID-19 public health and social measures: a comprehensive picture of six Asian countries. BMJ Glob Heal. 2022;7(11). DOI: 10.1136/bmjgh-2022-009863.
13. Tulchinsky TH. Ethical Issues in Public Health. Case Studies in Public Health. 2018:277–316. doi: 10.1016/B978-0-12-804571-8.00027-5.

14. Bardosh K, de Figueiredo A, Gur-Arie R, Jamrozik E, Doidge J, Lemmens T, et al. The unintended consequences of COVID-19 vaccine policy: why mandates, passports and restrictions may cause more harm than good. BMJ Glob Heal. 2022 May;7(5). DOI: 10.1136/bmjgh-2022-008684.

15. Voo TC, Clapham H, Tam CC. Ethical implementation of immunity passports during the COVID-19 pandemic. J Infect Dis. 2020;222(5):715–718.

16. Stanford Encyclopedia. Deontological ethics. In: Stanford Encyclopedia of Philosophy. 2020. p. 1–19. https://stanford.library.sydney.edu.au/entries/ethics-deontological/%0Ahttps://plato.stanford.edu/entries/ethics-deontological/%0Ahttps://plato.stanford.edu/entries/ethics-deontological/#AdvDeoThe

17. Escandón K, Rasmussen AL, Bogoch II, Murray EJ, Escandón K, Popescu S V, et al. COVID-19 false dichotomies and a comprehensive review of the evidence regarding public health, COVID-19 symptomatology, SARS-CoV-2 transmission, mask wearing, and reinfection. BMC Infect Dis. 2021 Jul;21(1):710. DOI: 10.1186/s12879-021-06357-4.

18. Zhang J, Zhang R. COVID-19 in China: Power, transparency and governance in public health cCrisis. Healthcare (Basel) 2020;8(3):288. doi: 10.3390/healthcare8030288.

19. Barugahare J, Nakwagala FN, Sabakaki EM, Ochieng J, K Sewankambo N. Ethical and human rights considerations in public health in low and middle-income countries: an assessment using the case of Uganda's responses to COVID-19 pandemic. BMC Med Ethics 2020;21(1):91. https://doi.org/10.1186/s12910-020-00523-0.

20. Zweig SA, Zapf AJ, Beyrer C, Guha-Sapir D, Haar RJ. Ensuring Rights while Protecting Health: The Importance of Using a Human Rights Approach in Implementing Public Health Responses to COVID-19. Health Hum Rights. 2021 Dec;23(2):173-186. hrjournal.org/2021/10/ensuring-rights-while-protecting-health-the-importance-of-using-a-human-rights-approach-in-implementing-public-health-responses-to-covid-19/.

21. Cameron J, Williams B, Ragonnet R, Marais B, Trauer J, Savulescu J. Ethics of selective restriction of liberty in a pandemic. J Med Ethics 2021;47(8):553–62. doi: 10.1136/medethics-2020-107104.

22. Winston A. New Principles Offer Guide To Human Rights During Health Emergencies - Health Policy Watch. Health Equity, 26 June 2023. https://healthpolicy-watch.news/new-principles-offer-guide-to-human-rights-during-health-emergencies/.

23. Groseclose SL, Buckeridge DL. Public health surveillance systems: recent advances in their use and evaluation. Annu Rev Public Health. 2017;38(1):57–79. https://doi.org/10.1146/annurev-publhealth-031816-044348

24. Spitale G, Biller-Andorno N, Germani F. Concerns around opposition to the green pass in Italy: sSocial listening analysis by using a mixed methods approach. J Med Internet Res. 2022;24(2):e34385. DOI: 10.2196/34385.

25. Sun N, Esom K, Dhaliwal M, Amon JJ. Human rights and digital health technologies. Health Hum Rights. 2020 Dec;22(2):21–32. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7762914/.

26. James W, Elston D TJ et al. Decisions! Decisions! Decisions! Andrew's Dis Ski Clin Dermatology. 20AD. https://www.bsr.org/reports/BSR-Decisions-Rights-Based-Approach-Tech-Data-Public-Health-Emergencies.pdf.

27. Tan EW. South Korea, Singapore and Taiwan take on coronavirus. Researchgate.Net. https://www.researchgate.net/profile/Erwin-Tan-2/publication/354924028_ASIA_Trends_in_DIGITAL_ASIA_SOUTH_KOREA_SINGAPORE_AND_TAIWAN_TAKE_ON_CORONAVIRUS/links/615467cf39b8157d900cbd8b/ASIA-Trends-in-DIGITAL-ASIA-SOUTH-KOREA-SINGAPORE-AND-TAIWAN-TAKE-ON-COR.

28. The Royal Society. COVID-19 : examining the effectiveness of non-pharmaceutical interventions. London: The Royal Society, n.d. https://royalsociety.org/-/media/policy/projects/impact-non-pharmaceutical-interventions-on-covid-19-transmission/the-royal-society-covid-19-examining-the-effectiveness-of-non-pharmaceutical-interventions-report.pdf.

29. Bashir S, Ashraf R, Khaliq A. Linguistic accommodation in multilingual conversations: a cross-cultural study of Pakistan. VFAST Trans Educ Soc Sci. 2023;11(1):149–54. DOI: https://doi.org/10.21015/vtess.v11i1.1448

30. Trispiotis I. Mandatory vaccinations, religious freedom, and discrimination. Oxford J Law Relig. 2022;11(1):145–164. https://doi.org/10.1093/ojlr/rwac017.

31. Alana Biggers ZV. Equitable distribution of COVID-19 vaccines_ Why it matters. Medical News Today, 30 November, 2021. https://www.medicalnewstoday.com/articles/equitable-distribution-of-vaccines.

32. Aini MH, Widjaja G. Mandatory coronavirus disease-19 (covid-19) vaccination in indonesia: Legal aspect. J Legal, Ethical and Regulatory Issues. 2021;(24):1–15. https://www.abacademies.org/articles/mandatory-coronavirus-disease19-covid19-vaccination-in-indonesia-legal-aspect-11702.html.

33. Usman M, Yuyan L, Husnain M, Akhtar MW. COVID-19, travel restrictions and environmental consequences. Environ Dev Sustain. 2024;(26):10261–10281. https://doi.org/10.1007/s10668-023-03146-8.

34. Shah N, Amjad R, Hameed M, Shahzad A. Pakistan Migration Report. Lahore: Centre on International Migration, Remittances and Diaspora, 2020. https://www.gids.org.pk/wp-content/uploads/2020/10/Migration-Report-2020-Complete-Grayscale-1.pdf.

35. Nashte A, Agrawal PK, Patil D, Parati N, Kumbhar UT, Shelke N. Examining the ethics of public health interventions: balancing individual rights and collective well-being. South East Eur J Public Heal. 2023;(SE-Articles):150–61. https://www.seejph.com/index.php/seejph/article/view/448.