ABSTRACT

Introduction The COVID-19 pandemic demonstrated how vaccine hesitancy impacts are translated nationally and internationally. A predictor of vaccine hesitancy is religious beliefs (eg, the body being sacred and should be healed by God). Additionally, the perceived content of vaccines can conflict with religious dietary restrictions. Despite the main faith organisations in the UK endorsing COVID-19 vaccination, vaccine hesitancy remains a challenge. Most faith-based research and interventions have been investigated in individual faiths, in isolation from others. Therefore, the aim of our research is to inform the development of interfaith interventions to address COVID-19 vaccine hesitancy, following the identification of potential facilitators and barriers and codesign of interfaith intervention(s).

Methods and analysis We will facilitate six face-to-face focus groups in London, each comprising eight participants. There will also be the option of joining an online focus group. A semistructured topic guide will include questions on experiences around interfaith, vaccine hesitancy, facilitators and barriers, and potential interfaith interventions to increase vaccine acceptance. Focus group participants will be invited to join a subsequent interfaith codesign workshop where the researchers will share the tentative findings and facilitate discussion to develop one or more interventions. Purposive sampling will be used to recruit 48 participants from different faith groups, ethnicities and backgrounds to capture diversity in the sample. Reflexive thematic analysis will guide a systematic process of constant comparison, coding data into categories and refining into overarching themes.

Ethics and dissemination The University College London (UCL) Research Ethics Committee granted ethics approval (Project ID 4359.006) on 3 May 2022. Minor amendments to the study were approved on 15 May 2023 to accommodate participants’ requests for online or face-to-face focus groups at a UCL venue. Informed consent is required from all participants. The findings will be disseminated in journals and to the public and key stakeholders.

INTRODUCTION

The COVID-19 pandemic has demonstrated how vaccine hesitancy, while personal to an individual, has a considerable impact on the individual’s family, friends, workplaces and communities. Ultimately, the impacts are translated nationally and internationally, hampering the global effort to tackle the pandemic.

Individuals’ reasons for COVID-19 vaccine hesitancy are varied including concerns about adverse effects, especially unknown future effects of the vaccine, the speed of vaccine development and the novelty of the mRNA and adenovirus-based vaccine platforms. Other reported reasons include the low perceived risk from COVID-19, the desire for a ‘natural’ and ‘organic’ life and for a ‘natural immunity’. Studies have also shown that, generally, people who are vaccine hesitant also have a low trust in scientists, medics, healthcare systems, governments and pharmaceutical companies. While many of these reasons reflect those given for ‘mainstream’ vaccines, COVID-19 vaccine hesitancy has been exacerbated by COVID conspiracy suspicions and the increasing numbers of individuals who obtain health information from unregulated social media sources. In the USA, political
polarisation has further increased vaccine hesitancy in Republican voters.10 11

Religiosity has been found to be inversely associated with COVID-19 vaccine acceptance across racial groups.12 Religion is defined as sets of beliefs, values, culture and practices that groups of people follow in the worship of God or higher powers, whereas faith arguably has a stronger spiritual component.13 Individuals from different religious backgrounds may believe that the body is sacred and should be healed by God or by natural remedies.14 Additionally, the content of the vaccines can raise concerns for religious groups, for example, the use of cell lines from aborted fetuses in vaccine production for Catholics, alcohol or porcine components for Muslims, animal matter in vaccines for strict Hindus and vaccines not being Kosher for Jews.1 15 Various religious leaders have addressed misinformation, and COVID-19 vaccination has been endorsed by British Islamic Medical Association, Hindu Council UK, the Board of Deputies of British Jews, the House of Bishops Recovery Group, the Catholic Church and other religious bodies. However, despite encouragement from these bodies and from many religious/community leaders, religion-based vaccine hesitancy remains a challenge.15 Emerging scientific literature suggests ways of addressing vaccine hesitancy, and a recurring theme is engagement and dialogue with communities and faith leaders16 17 and the creation of ‘therapeutic alliances’.2 Examples of healthcare/scientific sector engagement with ethnic/religious communities have been shared.12 However, most faith-based research and interventions have been investigated in individual faiths, in isolation from other faiths, even when several faiths were included in the same project.18

Critically, homogenising faith-based groups has led to generic public health messages being ineffective as they are not tailored to capture the heterogeneity of people.12 Empirical research is limited to exploring vaccination attitudes across groups based on their religion, ethnicity and cultural norms.5 Moreover, gaps in knowledge exist on how the complex intersectionality of ethnicity, gender, culture and religion impact vaccine hesitancy.16 The collectivist aspects of religion and its influence on vaccine uptake or hesitancy are generally overlooked, for example, people prioritising the need to protect others to minimise any risk of harm.5 Therefore, understanding the intersectionality of social, religious and cultural factors that impact faith communities requires meaningful research, which can potentially improve future health outcomes.18 One approach to tackling misconceptions and increasing COVID-19 vaccine confidence is to build trust by engaging with faith and interfaith leaders, community members and organisations.15 Increased vaccine uptake has been found in communities where trusted community or faith leaders advocate for its benefits or have developed bespoke information challenging misconceptions.1

As found in previous studies and planned in the proposed study, dealing with future pandemics including COVID-19 requires interfaith collaboration with religious communities, key health partners and the government in the codesign of person-centred interventions.14 16 However, challenges in interfaith work include the under-representation of certain faith groups, especially if they have fewer members or are less familiar with participating in research.19 Over-representation of people from a particular faith group is also a challenge.19 Nonetheless, collaboration can increase vaccine equity in religious groups due to the planning and delivering of bespoke localised vaccination services.20 The UK government has also been strongly advised by an independent review to recognise that ‘faith is a force for good, and to do more to both understand and release the potential of this fantastic resource’.21 In addition, conducting the proposed study is a valuable opportunity to enhance harmony and cohesion among faith communities through the creation of shared spaces and learning. Data can also be elicited on differences and similarities in vaccine attitudes between cultural, religious and minority groups which are currently lacking.5

The aim of the research described in this paper is to inform the development of interfaith interventions to address hesitancy towards COVID-19 vaccination. The objectives are to identify potential facilitators and barriers to interfaith interventions to address vaccine hesitancy and to codesign an interfaith intervention. Data collection using focus groups and a codesign workshop will capture the experiences of people from different faiths. The findings can be used to tailor health messages and advice to reflect diverse local faith communities.15 Additionally, the findings can inform high-income countries to address the disproportionate number of COVID-19-related health disparities in people from different faiths and minoritised groups.22

METHODS AND ANALYSIS
As scant empirical research exists on the proposed study, the flexible nature of qualitative research allows deeper insights to be identified during the research process by applying methods that elicit inductive and deductive data based on the responses to core questions.23 The experiences of vaccine hesitancy in people of diverse faiths are complex based on the intersectionality of an individual’s social, religious and cultural context.18 Therefore, a qualitative approach enables an insider’s perspective of how people construct and make sense of their changing social realities and is located within an interpretivist constructivist framework.23

Sampling and recruitment
Exploratory research requires implementing a sampling approach where participants can share knowledge on the topic under investigation.23 Purposive sampling will be used in the proposed study to identify participants who meet the inclusion criteria; therefore, the findings may not be generalisable to the wider population but will provide
a snapshot of experiences. Participants will be recruited from different faith groups. Individuals who have or have not previously been involved in interfaith groups will be recruited to ensure diversity in the sample. The inclusion criteria for participants apply to faith/interfaith leaders and community members who live within 1-hour travel from University College London (UCL) School of Pharmacy and can attend a face-to-face focus group and codesign workshop. Data collection is limited to London due to funding and resource constraints. However, London has higher rates of COVID-19 vaccine hesitancy in the population compared with the rest of England, Scotland and Wales, especially in adults of black or black British ethnicity and in Muslim communities, and we hope that the findings will be applicable to communities outside London with high levels of vaccine hesitancy. Individuals under 18 years of age will be excluded from the study.

To capture the diversity of religions and participants from different backgrounds, the sample will include up to 48 participants. In qualitative research, the sample number may increase or decrease when theoretical saturation of the data occurs or when new insights from the analysis emerge.

Patient and public involvement
This study was conceived during discussions with local government community engagement officers addressing vaccine hesitancy with diverse communities that highlighted religion as a major factor in vaccine hesitancy. There was no patient and public involvement in the design, and none is planned for the conduct of the study.

Data collection
A clear strategy for recruiting participants from diverse backgrounds and faiths has been developed. The research team has existing links with a diverse range of faith and interfaith organisations and places of worship in London. The research team will contact the UCL community and Imperial College community networks, student societies and chaplains as well as local councillors and contacts in local government to link the team with other faith and interfaith organisations. Additionally, a mapping exercise of groups in London will be carried out by the research team to include seldom-heard communities and minoritised faith groups to effectively communicate study information. A study leaflet will be disseminated to all contacts, and invitations will be sent through professional channels via the research team’s UCL email addresses or work mobile telephones. Participants will be able to contact the researcher by email or telephone according to their preferences.

The research team will ensure that communications with potential participants are non-coercive and make it clear that participants have a choice to take part or not and to leave the study at any time without giving a reason. Advertisements to recruit participants will also be placed on social media and will include brief details on the study and the researchers’ contact details. Participants will then be able to contact the researchers for additional information, and those who express an interest in the study will be sent a focus group participant information leaflet, a codesign workshop leaflet and a consent form via email or post.

The proposed study will use online and in-person focus groups to maximise inclusivity. Both can be advantageous as participants meet others who share a similar lived experience. Online focus groups are practical, time efficient and more accessible to a wider range of participants who participate from their own personal space and from different geographical locations. However, difficulties may arise due to low digital literacy and technology access, focus group disruptions by others or challenges for researchers observing participant body language and non-verbal cues. In contrast, in-person focus groups offer researchers greater insight into non-verbal cues and communication; the venue minimises disruptions and provides a safe forum for participants to meet others to discuss a topic of their interest. Using both these formats will allow participants to take part in a way that is suitable for their circumstances.

Participants will be invited to attend one of six face-to-face focus groups, most of which will be hosted in community venues. Participants will also have the options of attending focus groups online via Zoom or at a venue at UCL. These will be audio-recorded with each person’s consent and transcribed verbatim. Each focus group will comprise up to eight participants and is envisaged to last 120 min. A semistructured topic guide (online supplemental file 1) will include experiences around interfaith, experiences of vaccine hesitancy, potential interfaith interventions to increase vaccine acceptance and possible facilitators and barriers.

Once focus group data collection has been completed and analysed, the tentative findings will be presented in a booklet to be shared in a codesign workshop with up to 10 participants. The research team will facilitate the session and give participants feedback on what has been learnt so far, including key illustrative quotes from each of the themes and feasibility issues that need to be considered when moving to the next stage of intervention development. Discussion about the nature of an intervention will be facilitated using nominal group techniques, which essentially focuses on the participants building consensus. The process will consist of four stages: silent generation of solutions, round-robin sharing of ideas, clarification of ideas and voting.

Data analysis
The proposed study will implement reflexive thematic analysis on verbatim transcripts from the focus groups and codesign workshop. The coding process will be systematic requiring the researcher to familiarise themselves with the data by rereading transcripts and labeling pieces of text from the raw data. Coding the first few transcripts will generate a large number of descriptive codes, which will be compared with identifying patterns,
similarities and differences. This analytic process will continue during data collection to enable the researchers to discard codes that are deemed irrelevant. Refining the themes will involve selecting codes that share similarities and organising them into overarching categories. The analysis process will be fluid, non-linear, iterative, inductive and deductive as themes will be generated from responses to the semistructured topic guide but also from new areas of enquiry identified from the analysis. The analysis process will continue until theoretical saturation occurs when no new insights will be identified.31

The research team will conduct the analysis both manually and in NVivo software. A concurrent process of data collection and analysis will be applied in the proposed study, and the codesign workshop data will be comparatively analysed with focus group data. Using the solutions generated by participants from the codesign workshop and specific actions to take forward, the research team will be able to work up the final details of the intervention.

To enable confirmability of the findings, the research team will provide a transparent account during the study, data collection and analysis and document their reflexivity and record fieldwork notes to ensure quality assurance of coding and interpretation of the data. The researcher’s reflexivity is important in thematic analysis, and the subjectivity of the researcher is recognised through the co-construction of the data.30 The team comprises three researchers from different faiths and backgrounds who will meet regularly to share their reflections and discuss any potential biases. Once analysis begins, the research team will implement a coding framework to enable them to independently code data through a structured process.30 31 Two researchers will read a sample of focus group data and check the emergent analysis and themes. This approach will strengthen coding reliability, and the researchers will be able to share and discuss the emergent categories. To collectively seek consensus on the final coding, the researchers will search for texts and for cases that contradict the main findings (argumentative validity).

ETHICS AND DISSEMINATION
The UCL Research Ethics Committee granted ethics approval (Project ID 4359.006) on 3 May 2022. Minor amendments to the study were approved on 15 May 2023 to accommodate participants’ requests for online or face-to-face focus groups at a UCL venue. There will be no risks to participants as the research will not involve any changes to procedures or treatment. If the researchers identify any practices that appear unsafe during the focus groups and codesign workshop or if the participants have any questions in relation to vaccinations, the researchers will encourage them to seek advice from a healthcare professional, such as their local pharmacist, and signpost them appropriately as to how best to do this.

Seeking informed consent from participants is essential in this study, and the research team will explain to potential participants what the study involves and answer any questions. The participants will be made aware of their rights, the voluntary nature of taking part and their choice to take part. Moreover, participants will be informed of their right to withdraw from the study without having to give an explanation and without their care or medical rights being affected. Participants will also be provided with information on how their personal data will be kept confidential and anonymised in accordance with the university and funding body requirements. Participants will also be informed that once the focus group and workshop have been completed and anonymised, it will not be possible to remove their data. All the focus groups and the coproduction workshop will be audio-recorded with the consent of the participants, enabling verbatim transcripts to be produced for analysis.

The study information will only be available in English. However, three members of the research team are fluent in various South Asian languages and can interpret or translate for participants who speak the languages if their English language is limited.

Data generated from the study will include audio recordings, anonymised transcripts and field notes. Only the research team conducting the focus groups and the transcriber will have access to the audio recordings. All transcripts will be anonymised before being shared with other researchers or lay partners. Electronic information will only be accessed by the research team and stored on the UCL computer system. Data that are transferred electronically will be anonymised first; however, where this is not possible, the files will be encrypted and password protected and only sent through secure UCL pathways. Any hard copies of signed consent forms will be stored in locked cabinets at UCL School of Pharmacy. All participant data will be anonymised to ensure no identifiable data will appear in any report.

In appreciation of the participant’s time, they will each receive a £20 voucher for each focus group and a £75 voucher for the codesign workshop, which will entail more time and greater input. Participants will also be paid for their travel expenses and refreshments at the sessions to thank them for their time. The remuneration is appropriate and is not large enough to be coercive.

To disseminate and communicate the results, a summary of our work in plain English will be produced, aimed at the public and will be shared with the participants, if the latter would like us to and if they are happy for us to keep their details on our files until then. This summary will include all the helpful strategies identified with participants. A similar summary will be adapted and tailored to faith leaders and healthcare professionals. A rapid initial guidance document will be produced aimed at policymakers to inform them of potential interventions that increase vaccine acceptance. From the results, at least one peer-reviewed research paper will be published for the academic community. All the summaries will be made available via the websites of our affiliated organisations, including the UCL School of Pharmacy, the National
Institute for Health and Care Research Imperial Patient Safety Translational Research Centre and the UCL Institute of Digital Health. Furthermore, information will be disseminated via social media including Twitter.

**Study status**

This protocol was first submitted in April 2023. Data collection began in June 2023 and is now completed. Data analysis is in progress at the time of revised protocol manuscript submission.

**Contributors**

SM and SG conceptualised the study, developed the study protocol and secured funding, SM, SG and FA edited the protocol for publication.

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**Competing interests**

None declared.

**Patient and public involvement**

Patients and/or the public were not involved in the design, conduct, or reporting, or dissemination plans of this research.

**Patient consent for publication**

Not applicable.

**Provenance and peer review**

Not commissioned; externally peer reviewed.

**Supplemental material**

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5