



HOW MIGHT DESIGN INFLUENCE CHILDHOOD IMMUNISATION DECISIONS AMONGST THE BLACK, ASIAN AND MINORITY ETHNIC (BAME) COMMUNITY IN THE UK?

Framed around parents within the BAME community who refuse childhood immunisations, this study aims to ascertain how design could influence these parents' decision making regarding vaccinating their children.

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INSIGHT REPORT

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BACKGROUND

The decision to explore the parental refusal for childhood vaccinations is a personal one. An unfortunate loved one caught Meningitis while on a holiday trip to Bangladesh, as he was not administered a travel vaccine. After his return to the UK, the side effects of Meningitis were so severe that the disease spread across his entire body and was found to be incurable. As a result, he passed away at an extremely young age.

His mother, who was not born nor raised in the UK and is of an ethnic origin, can only speak in her native tongue; this difficulty with English put her at a disadvantage when seeking to be educated about vaccines. Her healthcare professionals expressed their knowledge about vaccines in medical terms and in the English language, neither of which she could fully understand, thus making it impossible for her to understand immunisation or appreciate its importance. The result of this was that she did not vaccinate her child before travelling to another country.

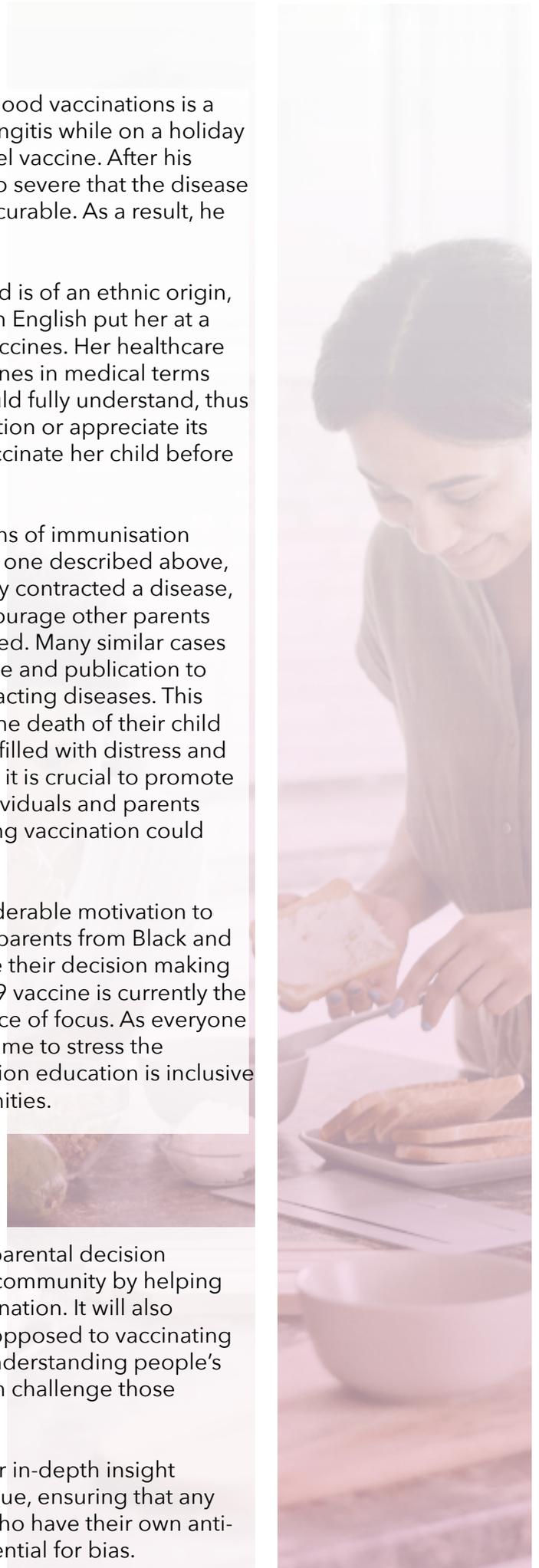
Therefore, this research will investigate the perceptions of immunisation within the BAME community. Cases such as the loved one described above, who did not receive a travel vaccine and consequently contracted a disease, should be brought to attention as an example to encourage other parents to reconsider whether to have their children immunised. Many similar cases have been sidelined and need further media coverage and publication to raise awareness of the severe consequences of contracting diseases. This would prevent many parents from having to endure the death of their child or children from a preventable disease and living life filled with distress and regret for not vaccinating them. Within BAME culture, it is crucial to promote discussions between young and educated ethnic individuals and parents regarding how the latter's lack of knowledge regarding vaccination could jeopardise their children's lives.

As an individual of Bangladeshi descent, this is considerable motivation to examine how design could contribute to influencing parents from Black and Asian Ethnic Minority (BAME) backgrounds to change their decision making regarding childhood immunisations. As the COVID-19 vaccine is currently the dominant global topic, it also contributed to this choice of focus. As everyone will be required to take the vaccine, now is the ideal time to stress the importance of vaccination and ensure that immunisation education is inclusive for the UK's black, Asian, and ethnic minority communities.

INTRODUCTION

This research will explore how design can influence parental decision making regarding vaccinating children in the BAME community by helping them recognise the benefits and importance of vaccination. It will also investigate the various reasons why parents may be opposed to vaccinating their children. This subject will provide insight into understanding people's perceptions of vaccines and discover how design can challenge those perceptions.

The study will use several research methods to gather in-depth insight from parents and their perspectives regarding the issue, ensuring that any judgements are made reasonably and that parents who have their own anti-vaccine stances are considered, to attenuate the potential for bias.



AIMS

1

Explore the causes of vaccine hesitancy and the increase of BAME communities refusing vaccines

2

Determine how design influences parental decisions regarding vaccinations for children within the BAME community.

3

Gain further insight about the different categories within the BAME community and their take on vaccines for children.

OBJECTIVES

1

Use online research to understand further the reasons for parents' refusal to vaccinating their children in the BAME community

2

Find out how existing design that solves the problem of BAME parents refusing to vaccinate their children using both Online and Design History research methods

3

Conduct a study on the BAME demographic to gain more insights into their views on vaccines using online surveys and unstructured interviews

METHODOLOGY

1

ONLINE RESEARCH

Further research was conducted online to determine the information that is already available and identify the gaps, which will be further investigated with primary research methods.

2

DESIGN HISTORY

Design history was taken into consideration to understand the historical context of the use of design targeting the BAME community, to examine how to increase inclusivity for this group.

3

SURVEY

A survey was created and targeted towards individuals in the BAME community, to gain a deeper understanding of their perceptions of immunisation.

4

INTERVIEW

Unstructured interviews were performed to gain purposeful and systematic insights into a specific demographic to learn about rarer perspectives and opinions regarding childhood vaccination.

5

ETHNOGRAPHY

Useful ethnographic data were gained from observing the emotions of individuals in interviews.

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THE INVESTIGATION

WHAT IS ALREADY OUT THERE?

04 - THE INVESTIGATION

HISTORY OF VACCINES

The history of vaccines can be traced back to an 18th-century physician named Edward Jenner, whose successful vaccination of a child against smallpox has since led to his recognition as the founder of vaccinology. Jenner administered the child with cowpox, a similar but milder virus compared to smallpox, to immunise him against the more dangerous virus. This led to the development of the smallpox vaccine in 1798, whose subsequent widespread application over the course of the 18th, 19th, and 20th centuries eventually resulted in the eradication of the disease by 1980. Meanwhile, numerous vaccines were developed for other diseases, many of which are still in use today. Immunisation has caused a significant decrease in the number of previously widespread diseases. For instance, if smallpox had not been eradicated, it would currently cause 2 million deaths per year in the UK alone (Unknown, 2021).

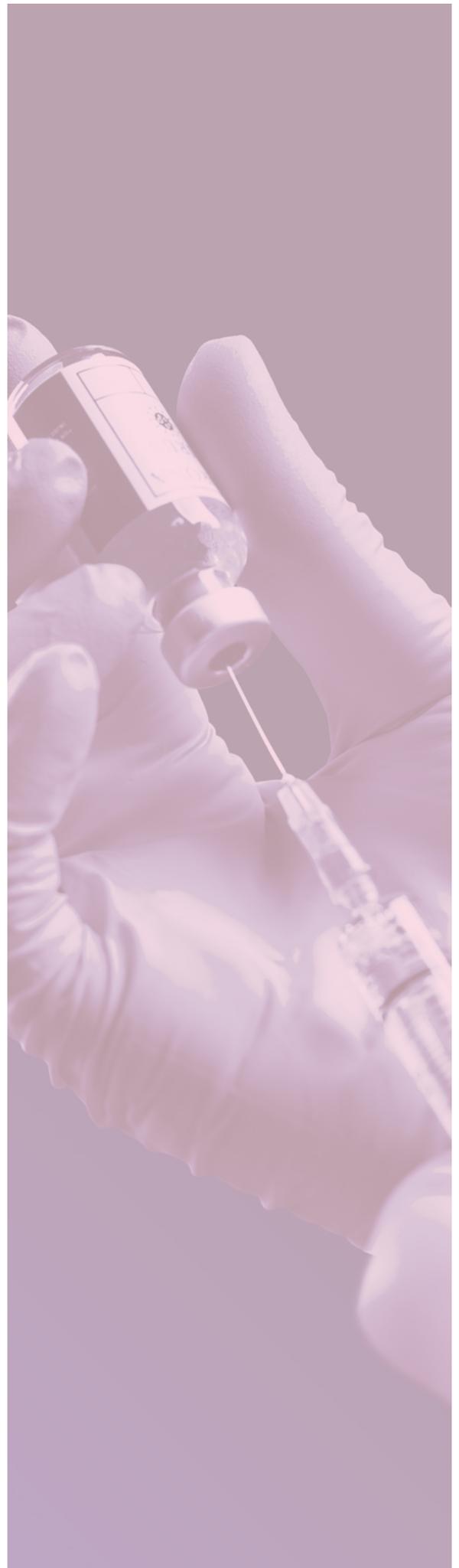


PROVEN TO BE A SUCCESS

Immunisation is a proven tool for controlling and eliminating life threatening infectious diseases and is estimated to avert between 2 and 3 million deaths each

World Health Organization

The World Health Organisation (2021) describes immunisation as “a proven tool for controlling and eliminating life-threatening infectious diseases and is estimated to avert between 2 and 3 million deaths each year.” It has also been touted as one of the most significant accomplishments of modern medicine, providing immunity to 90% of children (Unknown, 2021). This evidence demonstrates the astronomical success of immunisation throughout history in protecting children and adults alike from dangerous and deadly diseases.



INFANT VACCINES

(Unknown, 2021) argues that it is essential for children to be immunised, since many vaccine-preventable diseases remain prevalent and thus continue to pose a risk for children and other vulnerable groups. Previous studies have demonstrated a correlation between decreases in vaccination rates and the renewed outbreak of diseases, thus emphasising the importance of routine vaccination to save children, prevent the occurrence of future outbreaks, and ultimately eliminate diseases altogether. Since children are the most vulnerable to disease, NHS offers free routine vaccines to protect them from diseases such as measles, rubella, tetanus, and meningitis (Unknown, 2021). Children under the age of 1 are offered rotavirus and MenB vaccines, while those aged 1 to 15 can receive Hib/MenC, MMR, Pneumococcal (PCV), MenB, flu, HPV, and MenACW vaccines.



REASONS FOR PARENTS REFUSAL

Numerous studies have attempted to understand why parents may refuse, delay, or hesitate to vaccinate their children. While the results vary wildly depending on the parent's personal beliefs and background, the most frequently given reasons have been studied and can be classified into four main categories: religious beliefs, personal beliefs or philosophy; safety concerns; and a desire for more knowledge and information from medical professionals (Mckee and Bohannon, 2021). These four categories thus represent the most predominant reasons why some parents are hesitant to vaccinate their children.

1

RELIGIOUS BELIEFS

Within each of these categories, Mckee & Bohannon (2021) clarify that religious beliefs tend to be the most common reason why parents may refuse vaccines; consequently, individuals with religious views tend to be the hardest demographic to dissuade. One of the key reasons why people of religious faith are against vaccines is the ingredients that vaccines contain. Certain vaccines include animal gelatine or human foetal tissue, which concerns these individuals as consuming these products is contrary to their religious values.

2

PERSONAL OR PHILOSOPHICAL BELIEFS

Mckee & Bohannon (2021) provide an explanation of why personal or philosophical beliefs are another common reason for the avoidance of vaccinations for children. Some parents hold the personal or philosophical belief that vaccines disrupt the natural immune system and that immunisation should be achieved via more natural or organic methods, and consequently refuse to medically vaccinate their children. Other parents

may believe that vaccine-preventable diseases are not dangerous, thereby concluding that their children are safe. Finally, some parents are under the impression that children's immune systems can be improved by adhering to a healthier lifestyle and diet, and consequently believe that their children are not at risk of contracting dangerous diseases.

3

SAFETY CONCERNS

Safety concerns are another main factor for parents refusing to vaccinate their children. Mckee & Bohannon (2021) explain that some parents rely solely on various media sources, which typically bombard them with different takes on the topic. The full expanse of this information can be daunting and overwhelming for many parents, making them uncertain about which information they can trust and indecisive about the issue overall. Fearing the side effects of vaccines that are frequently highlighted and emphasised by anti-vaccine groups online, these parents consequently become reluctant to vaccinate their children.

4

DESIRE FOR ADDITIONAL EDUCATION

Another extremely common reason for refusing or hesitating to vaccinate children is the parents' desire to access more in-depth information about vaccines. Reasonably, these parents feel that making informed choices and considering the various advantages and side effects of vaccines necessitates the acquirement of detailed and accurate knowledge. One study reveals that a substantial number of parents find it difficult to speak with healthcare providers about vaccinations because they do not understand their medical explanations on the subject, and consequently find it difficult to be reassured by them (Mckee & Bohannon, 2021).

Consequently, research has revealed that the most common themes for parents refusing to vaccinate their children are religious beliefs; personal or philosophical beliefs; safety concerns; and a desire for additional education. This provides a more in-depth understanding of parents in all communities who may refuse to vaccinate their child and highlights the areas worth examining in the context of the BAME community.

PERCEPTIONS OF VACCINES IN THE BAME COMMUNITY

This case study explores childhood immunisation among the UK's Black and Asian Minority Ethnic (BAME) community and explores why the immunisation uptake is lower in this community than in the white population. The participants in this qualitative study were individuals from BAME backgrounds to ensure the study's relevance and suitability; this provided researchers with more precise results and facilitated the identification of patterns and trends. The identified themes were ethnicity-specific and other relative factors (Forster, Rockliffe, and Chorley, 2017). The participants involved in this study were mostly Brown or Black, and factors that influenced their decisions on immunisation were identified to be ethnicity-related.

The data gathered in the case study revealed that the factors affecting the extent to which participants perceive vaccines as important included their ethnicity, religion, upbringing, migration, and language. This can be explained by the various ways in which immunisations for ethnic parents have been either permitted, viewed as culturally inappropriate, or misunderstood (Forster, Rockliffe, and Chorley, 2017). The other factor identified is that of biological differences, which some parents view as a reason to not vaccinate their child and that affects their decision making and desire for further information.

In their summary of the difficulties faced by BAME parents when making vaccine-related decisions for their children, Forster, Rockliffe, and Chorley (2017) identify language difficulties as one of the most common causes of reluctance.

1

FACTORS RELATED TO ETHNICITY

Language Barriers: Ethnic parents living in the UK who cannot speak English have been found to feel deeply concerned that they would receive incorrect information about immunisations. Therefore, language issues make it extremely difficult for parents to educate themselves on immunisation. Forster, Rockliffe, and Chorley (2017) state that parents prefer to be informed about immunisation in their mother tongue, while some even struggle to understand the information in their native language.

Religion: Mckee and Bohannon (2021) cite religious reasons as one of the most common reasons why parents may refuse to vaccinate their children. Religious beliefs are practised extensively among the BAME community. Forster, Rockliffe, and Chorley (2017) state that religion affects many parents because it is permitted in their religion.

2

FACTORS RELATED TO BIOLOGICAL DIFFERENCES

Forster, Rockliffe, and Chorley (2017) find that certain parents have been affected by their beliefs about biological differences between themselves and the majority population in the UK. Consequently, their views regarding vaccines have been influenced in a variety of ways. The study found that Somali, Black Christian, and Black Caribbean mothers specifically are more concerned about the biological aspects, believing that immunisation would put their child at increased risk of disease or harmful side effects. Somali parents are shown to be particularly cautious of the MMR vaccine, and concerned about the so-called side effects that have been the subject of much discussion in recent years. Other parents are shown to be anxious, believing that immunisation research is not ethnically heterogeneous.

The participants in the case study learned that they receive limited information about immunisation due to the lack of acknowledgment of these differences.

Forster, Rockliffe, and Chorley (2017) summarise that ethnic people's perceptions of immunisation and decision making tend to be affected by their religion, language, upbringing, and/or migration.

COVID-19

The COVID-19 pandemic is a global crisis, with devastating health, social and economic impacts can cause severe disease and death. The long-term consequences are unknown, and people of all ages can be affected by it. Therefore, everyone was desperate solution which pressured scientists to create a COVID-19 vaccination. According to (COVID-19 vaccines: key facts - European Medicines Agency, 2021), the vaccines are safe and effective, and particularly important for the people most vulnerable to the disease. Currently, there is still ongoing research for more COVID-19 vaccines to be made.

CASE STUDY ON PEOPLE OF BAME BACKGROUNDS VIEW ON COVID-19 VACCINE

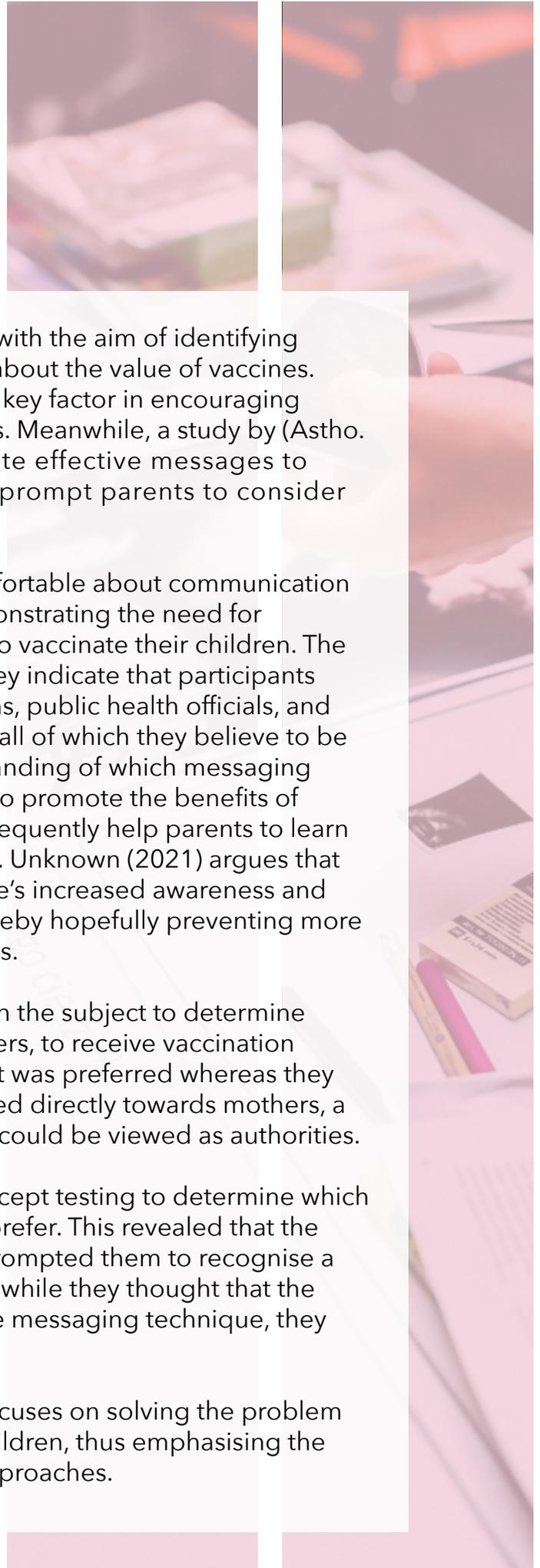
(Bell et al., 2021) did a study to find out people's views on the COVID-19 vaccine, and found that participants who are Black, Asian, Chinese, Mixed or Other ethnicity were more likely to reject the vaccine, for themselves and their child/children compared to white participants. Participants that were of those ethnic backgrounds were almost 3 times more likely to reject the COVID-19 vaccine for themselves or their children that White British participants. This is of concern given the evidence of Black, Asian and Minority ethnic live in the most deprived areas, and therefore, have an increased risk of acquiring infection. According to Bell et al., (2021), inequalities in vaccination uptake amongst BAME communities exist, and therefore there could be a potential ethnic inequalities in uptake of the COVID-19 vaccine.

Within this research, it was found that many people of BAME backgrounds are reluctant to have the COVID-19 vaccine, which is very concerning since it is a current problem. Many also refuse to give their child the vaccine. This may cause more tension between the BAME community and those in the British, Irish or White communities of backgrounds, since it could impact the white ones.

THE FINDINGS OF THE STUDY

This research has found that many people of BAME backgrounds are reluctant to receive the COVID-19 vaccine, which is of primary concern due to the current significance of the problem. Many also refuse to give their child the vaccine. This may cause more tension between the BAME community and those in the British, Irish, and/or White communities, due to the potential impact on the latter groups.

HOW DESIGN AND COMMUNICATION CAN BE USED EFFECTIVELY TO ENCOURAGE PARENTS TO RECONSIDER VACCINES



A project was conducted by (Unknown, 2021) with the aim of identifying ways to communicate effectively with parents about the value of vaccines. Unknown (2021) presents communication as a key factor in encouraging parents to consider the importance of vaccines. Meanwhile, a study by (Astho.org) examined how health officials can create effective messages to promote the benefits of immunisation and prompt parents to consider vaccinations for their child.

Studies have shown that the public are uncomfortable about communication methods based on scientific information, demonstrating the need for alternative approaches to encourage parents to vaccinate their children. The findings acquired in the (Unknown, 2021) survey indicate that participants trust the information provided by paediatricians, public health officials, and the centres of disease control and prevention, all of which they believe to be reliable sources. The findings offer an understanding of which messaging is more effective for the public health officials to promote the benefits of vaccines, to improve communication and consequently help parents to learn about vaccines and not feel unduly concerned. Unknown (2021) argues that better communication will contribute to people's increased awareness and understanding of the benefits of vaccines, thereby hopefully preventing more deaths caused by vaccine-preventable diseases.

Unknown (2021) conducted further research on the subject to determine the preferred way for parents, especially mothers, to receive vaccination education. It was found that fact-based content was preferred whereas they disliked subjective comments, anything targeted directly towards mothers, a patronising tone of voice, and statements that could be viewed as authorities.

Next, Unknown (2021) performed creative concept testing to determine which type of poster design concepts parents most prefer. This revealed that the parents preferred the creative concepts that prompted them to recognise a new perspective on vaccinations. Additionally, while they thought that the posters that used shock tactics had an effective messaging technique, they were put off by the visuals.

These findings indicate a lack of design that focuses on solving the problem of BAME parents refusing to vaccinate their children, thus emphasising the importance of addressing this gap in future approaches.

STUDY ON MESSAGING FOR COMMUNITIES FROM DIFFERENT CULTURAL BACKGROUNDS FOR DIFFERENT PROBLEMS

As there is no design targeted explicitly towards BAME parents and their decisions regarding childhood immunisation, this study examines a design aimed at BAME parents about COVID-19 self-isolation and self-testing as an example of how design targets BAME populations.



PI-BI (2021) examines the public health messaging for communities with various backgrounds and discusses the important aspects that help strengthen the situation. These important aspects are summarised into six key points as follows.

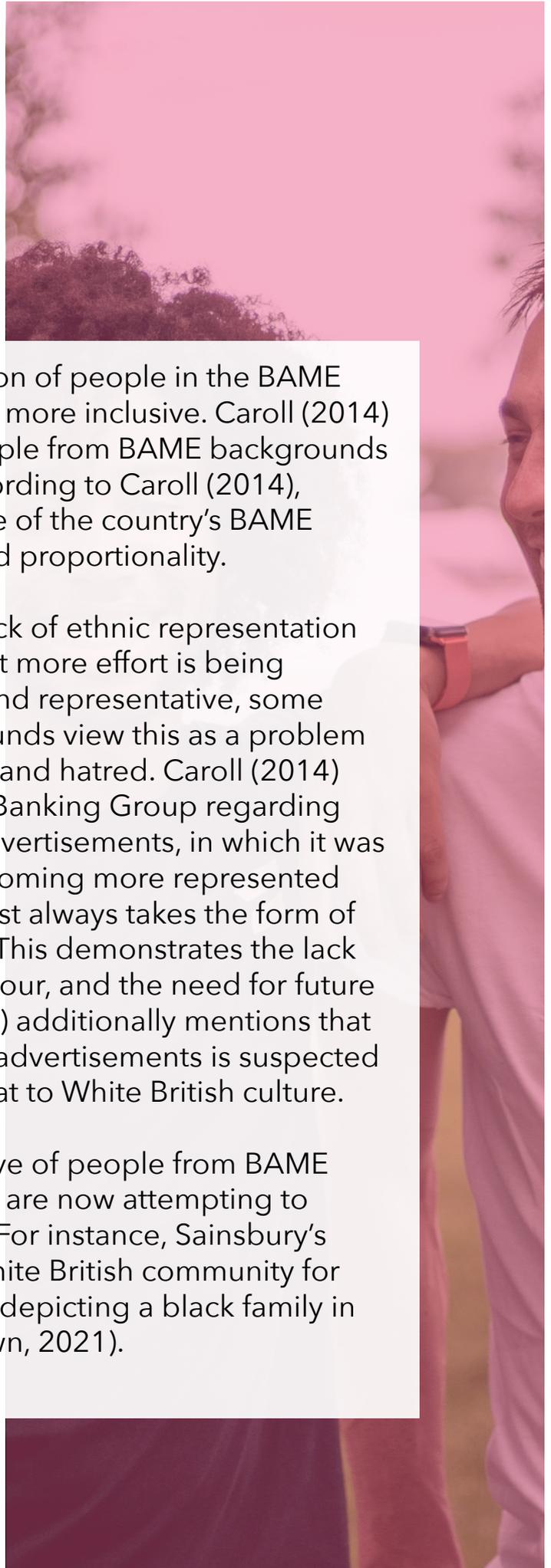
- 1)** The risk of COVID-19 in BAME communities could be decreased by using risk communication to promote health and safety.
- 2)** It is essential that the relevant information is translated into various different languages.
- 3)** There needs to be a focus on increasing the number of BAME people employed in health, political, community, legal, and academic positions, to ensure that people feel more able to trust the information provided.
- 4)** Health messages should represent and be inclusive of BAME individuals and take cultural norms into consideration.
- 5)** Messages should be made relevant to members of the community by including stories within the community of the consequences of following and not following guidelines.
- 6)** Fear-inducing messages should be avoided, as they create unnecessary stress within the community. The research here shows that the BAME community in particular experiences trouble with design communication, and emphasises the gap that remains in need of attention.

HOW DESIGN CAN BE USED TO INCREASE DIVERSITY

Design incorporates more representation of people in the BAME community to increase diversity and be more inclusive. Carroll (2014) discusses that while the visibility of people from BAME backgrounds is improving, it is not yet sufficient. According to Carroll (2014), the UK remains largely unrepresentative of the country's BAME population, in terms of both tonality and proportionality.

Historically, design contained a total lack of ethnic representation and overall diversity. However, now that more effort is being made to make design more inclusive and representative, some individuals from White British backgrounds view this as a problem and subsequently react with negativity and hatred. Carroll (2014) discusses a study conducted by Lloyd Banking Group regarding the presentation of BAME people in advertisements, in which it was found that while BAME people are becoming more represented in advertising, this representation almost always takes the form of a supporting role rather than the lead. This demonstrates the lack of adequate inclusion for people of colour, and the need for future work to address this issue. Carroll (2014) additionally mentions that the hatred for ethnic representation in advertisements is suspected to some individuals viewing it as a threat to White British culture.

Until recently, design was never inclusive of people from BAME backgrounds. However, various bodies are now attempting to address the lack of diversity in design. For instance, Sainsbury's recently received backlash from the White British community for increasing their apparent inclusivity by depicting a black family in their Christmas advertisement (Unknown, 2021).



The image features a large, pink, diagonally-hatched circle in the center. A smaller, solid pink circle overlaps its bottom-left edge. Several thin, white lines intersect the scene at various angles. The word "DISCUSSION" is centered in white, bold, uppercase letters within the hatched circle.

DISCUSSION

FURTHER INSIGHTS

CASE STUDY



Using online research provided a broader understanding of vaccines and was also helpful to learn about parents and their general perceptions of immunisation. Moreover, it aided in the understanding of people in the Black, Asian and Minority Ethnic Communities (BAME) and their perceptions of vaccines. More specifically, why vaccine uptake (including the COVID-19 vaccine) is the lowest in the BAME community. Gathered from the research, BAME parents are the most likely to be against vaccines and often refuse to vaccinate their child.

Based on the findings, due to a lack of organisation, pharmaceutical marketing often targets BAME parents and does not appropriately educate them on vaccinations. Therefore, this has been a gap in communication and needs to be addressed. Since there was a lack of design aiming to tackle BAME parents refusal or reluctance to vaccinate their child; Design History Research was used to study how design has been used to target BAME communities and increase diversity.

Design History research was used to understand the historical context of how design has been used to tackle lack of diversity. Although design is used to become more inclusive for Black, Asian and Minority Ethnic people, the studies show that this community still feels like they are underrepresented. In short, there are still gaps that need to be more focused on.

The Online and Design History research helped to understand the information that already exists, identify gaps, and uses Primary Research to further understand those gaps. Therefore, a study has been created that targets the BAME community to tackle identifiable gaps.



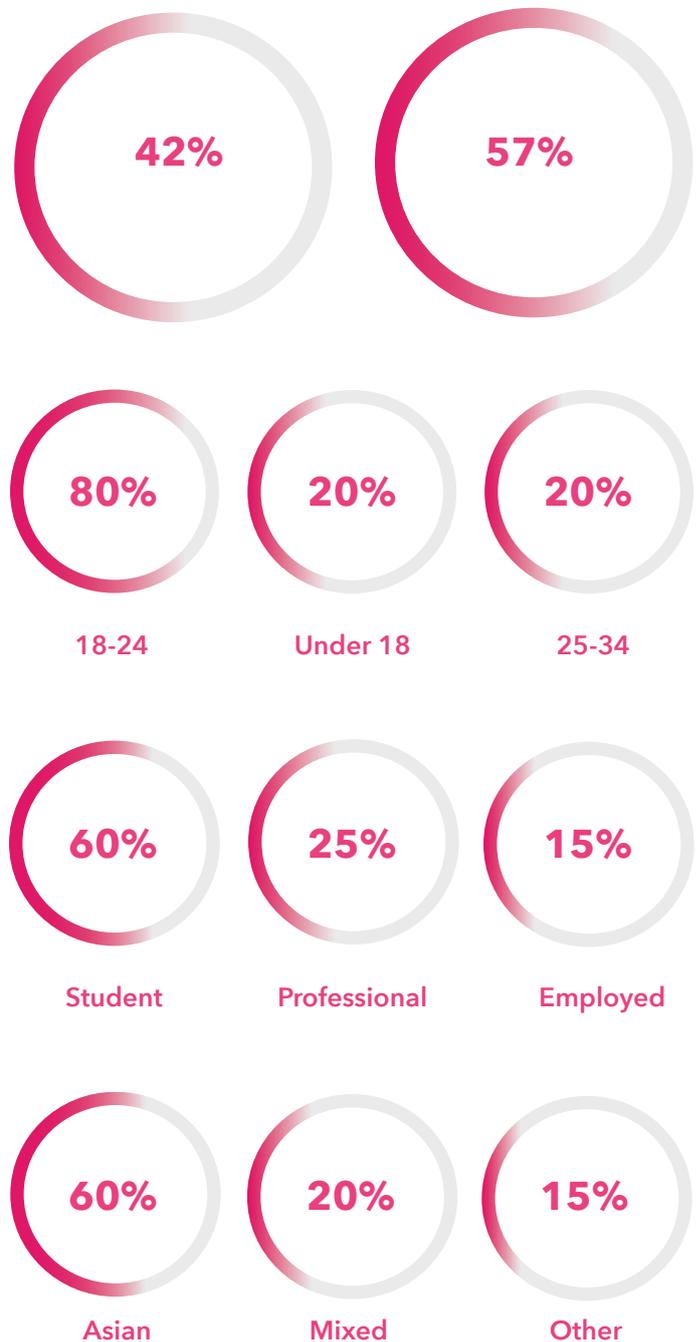
ONLINE SURVEY

In this study, a survey was conducted in which both parents and non-parents participated. The study was to find out if BAME individuals, whether they have a child or not, would be willing to have their child vaccinated, and gain a better understanding of BAME people's perceptions of vaccinations for children.

An online survey was conducted to reach out to BAME individuals from the wider community, to get broadened responses. The survey had 20 respondents in total.

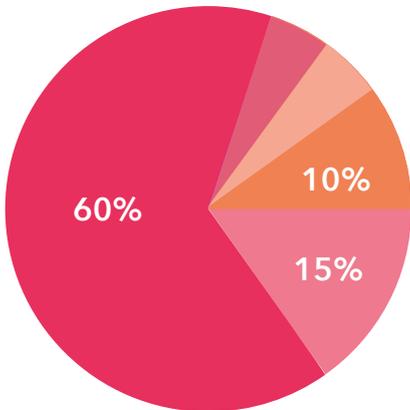
DETAILS ABOUT THE RESPONDENTS

In the survey (Appendix 1, 2021), the demographic was respondents who were of BAME backgrounds. The responses were then broadened since the survey reached individuals of different gender, age, occupation and ethnic groups which was helpful in gaining newer insights. Looking at the results, more than half of the respondents were female with around 57% and 42% being males. The majority of the respondents were made up of 18-24-year olds accounting for 80% of the surveyed population. 20% were individuals aged 25-34 year olds and the remaining were under 18. Most of the respondents were students; around 25% were employed and only 15% had a profession. Lastly, the survey had a range of individuals from different ethnic groups, with the most being Asian, Mixed or other groups.

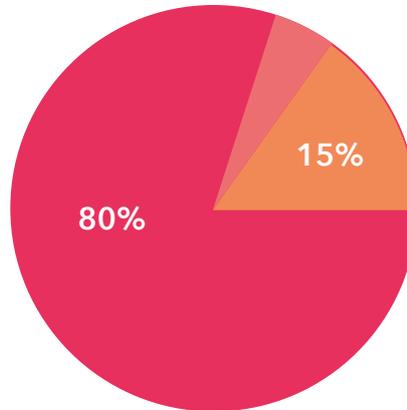


RESPONDENTS' VIEWS

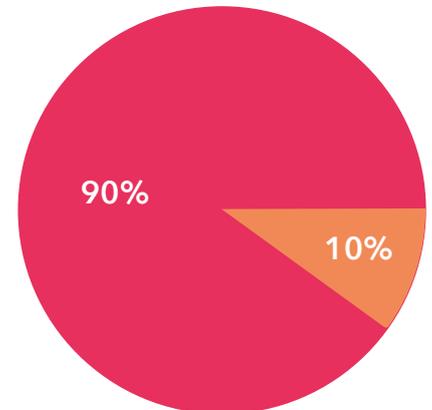
Religious beliefs



Views on vaccines



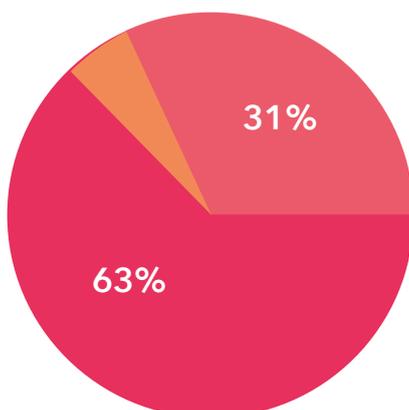
Would vaccinate child



The findings show that the views and beliefs of respondents are varied. The majority of respondents in the survey believe in the religion of Islam accounting for 65%, and the smaller percentage were Jewish, Sikh or other had other religious beliefs. When asked about views on vaccines, most of the respondents said they are pro-vaccine, around 15% were unsure and a small percentage were anti-vaccine. The findings show that most of the respondents said they would vaccinate their child or potential future child. However, 10% said they wouldn't and even commented that vaccines aren't safe and it's forbidden in their religion. The results suggests that fear and religion are the common factors to why people are reluctant about vaccines.

VIEWS ON COVID VACCINE

Views on Vaccines



Looking at the responses to questions related to COVID-19, around 63% would give their child the COVID-19 vaccine but 31% were unsure. The findings suggest that the most common reasons (7 responses) why people are refusing to have the COVID-19 vaccine is because of the potential side of effects and their lack of knowledge of it. The other reasons were because it's not permitted in their religion, and general distrust in the government because of the racial inequalities that they have experienced.

DO YOU THINK IMMUNISATION EDUCATION NEEDS TO BE MORE INCLUSIVE FOR BLACK, ASIAN AND MINORITY ETHNIC COMMUNITY?

Qualitative research was gained in the survey. In the survey, respondents were asked to make a comment on why they think Immunisation Education needs to be more inclusive for the Black, Asian and Minority Ethnic community. Respondents expressed that there is a language barrier problem, and because of this, BAME parents are being misinformed or uninformed about vaccinations. That is why they need accessible ways for them to understand vaccinations and make informed decisions. One respondent expressed that ethnic people are mistreated by doctors, and commented that there needs to be more trust built between the BAME communities and medical professionals. Another interesting comment from a respondent discussed how immunisation education is important especially for people from Asian ethnic background since there has been evidence that they are the most vulnerable to the Coronavirus. The findings suggest that there is more than one problem as to why BAME individuals are reluctant to vaccines, especially within the Asian community.

DO YOU THINK THERE NEEDS TO BE MORE DESIGN & ADVERTISING TAKING PLACE THAT CONSIDERS THE WANTS AND NEEDS OF BAME PARENTS WHEN MAKING DECISIONS ABOUT VACCINATING THEIR CHILD?

Respondents were also asked to comment about whether they think design needs to be more inclusive for the BAME community. Respondents expressed that there needs to be more design that considers parents who are of BAME backgrounds, especially for the elder generation, who are quick to believe misconceptions that are spread over social media.

Another reason why respondents believe design needs to be more inclusive for the BAME community is that they feel a lack of diversity. Although studies have proven design has become more inclusive for Black, Asian and Minority Ethnic communities, one respondent argues that there is still a problem that needs to be addressed. The respondent explains companies often increase diversity in design and marketing to appear more inclusive and improve their brand image, despite the fact that the companies themselves might be predominantly white or rely on exploitative methods like sweatshops and child labour. The respondent argues that increased diversity in adverts does not always translate into real-world change, and it is impossible to gauge the inclusivity/equality of a society based on the diversity of its design.

INTERVIEW

As an individual that lives in a Bangladeshi community, unstructured interviews were conducted with local residents that were of Bangladeshi origin to understand the community's perceptions on vaccines for children. In the unstructured interview (Appendix 2, 2021), three local residents participated.



SHAZ, 26 YEARS OLD
WORKS WITH THE COUNCIL



MAJEDA, 45 YEARS OLD
MOTHER OF THREE



TANVIR, 24 YEARS OLD
PHARMACIST

PARTICIPANT ONE



*SHAZ BEGUM
26 YEARS OLD
WORKS WITH THE COUNCIL*

INTERVIEW WITH SHAZ

The first participant, Shaz, gave very insightful responses. Shaz is a 41 year old woman that has been living in the Bangladeshi community since she was a child. In the interview, (Shaz informed that she personally thinks vaccines are efficient, but she also stated that fake information is spreading around, and therefore she prefers to research to make informed decisions. Although Shaz doesn't have a child, she informed that she would opt for her child to be vaccinate but look for natural remedies first. Since Shaz was brought up in the UK, she never struggled with speaking English, and communicating with Doctors was easy for her, however, her parents did struggle so she would always have to explain everything to them.

PARTICIPANT TWO



*MAJEDA MIAH
49 YEARS OLD
MOTHER OF THREE CHILDREN*

INTERVIEW WITH MAJEDA

The second participant, Majeda, age 39, who has three children, also gave insightful responses. In the interview, she discusses about how she used to think vaccines were bad, but now believes they are good. She wasn't brought up the UK, so she did talk about her struggle with communication with doctors, but she improvised and said that she learns about vaccines from the news. When asked if she would want her child to have the COVID-19 vaccine, she said she would accept it, as she has given her children many vaccines before. Majeda thinks that the elders in the Asian community believe vaccines are haram, and that's why don't trust vaccines. She also said that they are listening to the wrong information, and that she herself believed in the wrong ones.

PARTICIPANT THREE



*TANVIR ALI
24 YEARS OLD
PHARMACIST*

INTERVIEW WITH TANVIR

The third participant was Tanvir, age 24 and a pharmacist. Tanvir's responses were also very insightful since he works in the medical field, he was really knowledgeable about the subject. Tanvir explains that his understanding of vaccines are different because he studied Pharmacy, however, thinks that vaccines because its proven in History. Tanvir talks about how he used to have mixed views about the COVID-19 vaccine, but since he caught COVID and had the vaccine, he now thinks vaccines in general are efficient.

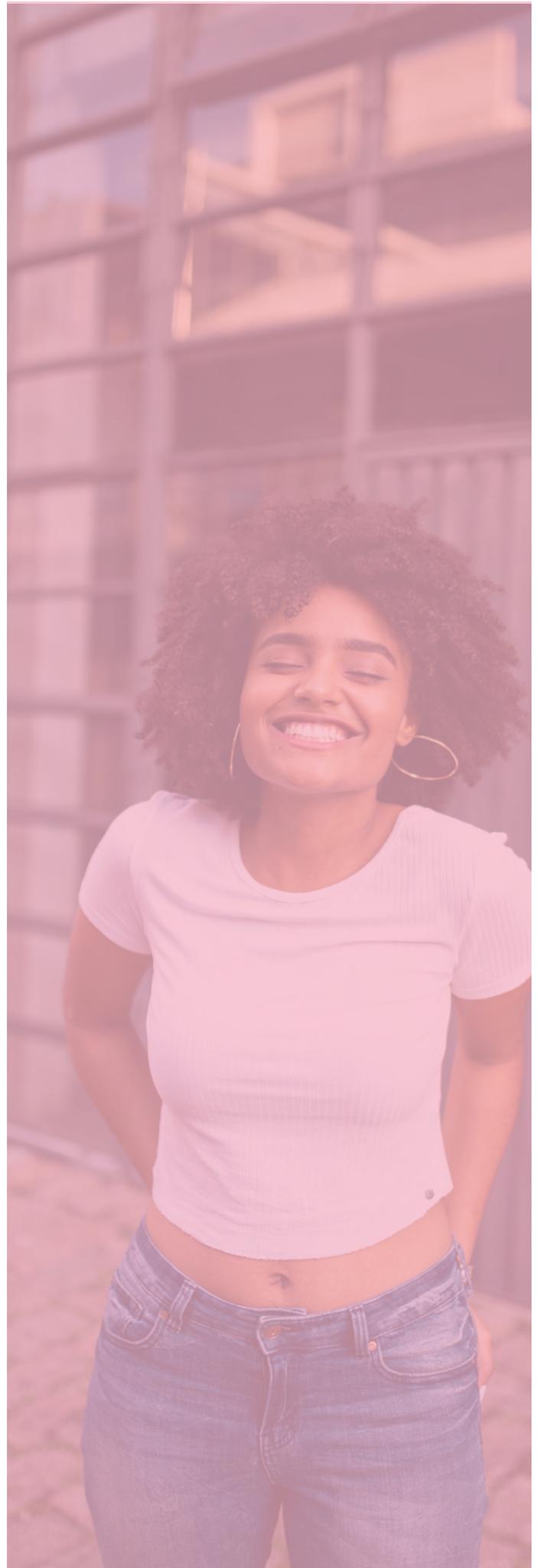
Since Tanvir was brought up in the UK like Shaz, he never struggled to communicate with doctors, however had to educate his parents who couldn't speak English.

Tanvir explains that people in the community, especially the elder ones, have been misinformed or uninformed about vaccines. A lot of them have been reading the wrong information about vaccines, and a lot of them are uneducated about vaccines because they have difficulty speaking English to doctors. People distrust the COVID-19 vaccine because it recently came out, however, since Tanvir had it himself, he wants to prove to people how effective it and set himself up as an example for the community.

He also noted that since he's a pharmacist of Asian background, he thinks that he has a responsibility to educate people in the community about vaccines, and has educated people who can't speak English to reassure them about vaccines. He now goes around the community to talk about how he had COVID and had the vaccine himself, so he wants to set himself up as an example to prove that the vaccine is successful

OBSERVATIONS THAT WERE MADE DURING THE INTERVIEWS WITH THE PARTICIPANTS

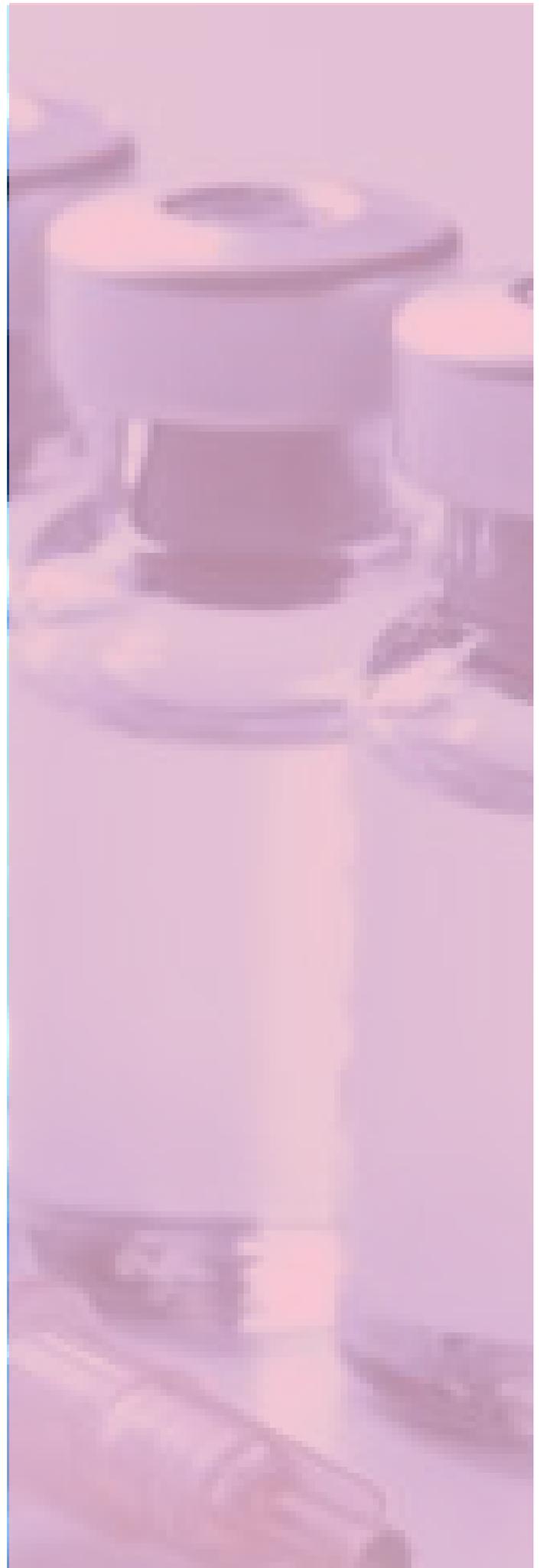
During the interviews conducted, ethnography was put into practice to observe how the participants were feeling when discussing BAME's perceptions on vaccines. In the interviews, both Tanvir and Shaz shared about the work that they are involved with throughout their communities to encourage BAME elders and parents to consider vaccines for themselves and their children. While speaking, we could see they were knowledgeable and passionate to bring safety to those most vulnerable. Tanvir especially, was very passionate as he wants to bring change to the situation, seeing that he has the ability and responsibility to create meaningful advancement in the health of those around him.



SUMMARY

Gathered from the research, the BAME community is the most likely to refuse vaccinations, and there are varied factors to why. Therefore, this is a very important issue that needs to be highlighted. There have been studies that prove that the BAME community are the most likely to refuse vaccines and therefore urgent addressing and action is needed.

There is no design that targets BAME parents to consider the importance of vaccines, and therefore, this is a gap identified in the research that needs addressing. The study gathered also shows that although design is becoming more inclusive for BAME individuals, however, there is still more that needs to be done to tackle the issue. This information explains why there is currently no design that targets BAME parents and educates them on vaccines specifically, which links to the fact there is a lack of diversity.



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APPENDIX

Appendix 1: Survey

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Appendix 2: Interview

1) What are your views about vaccines in general?

2) Have you ever struggled to speak English and therefore, struggled to communicate with doctors?

3) Would you give your child, or if you had one, a vaccine including the COVID-19 one?

4) Why do you think people in the BAME community are against vaccines?