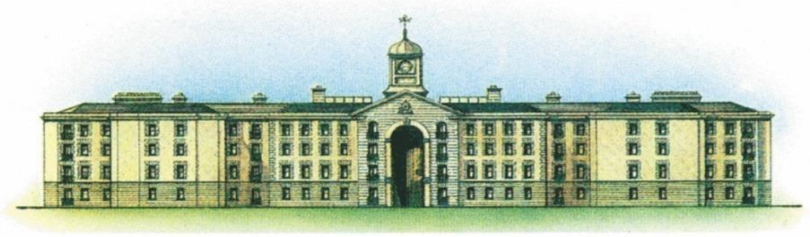

Griffith College

"Cross-Cultural Perceptions of Clinical Trials Among Young Adults (20-35) in Mumbai and Dublin: A Comparative Study of Awareness and Participation Willingness."

A dissertation submitted in partial fulfillment of the requirements for the degree of Master of Science in Pharmaceutical Business and Technology to the Innopharma Faculty of Pharmaceutical Science, Griffith College, Dublin,
Ireland.

Submitted by,
Ketki Rajaram Vishe[redacted]

Submitted on 24/08/2025

CANDIDATE DECLARATION

I hereby declare that the research project "Cross-Cultural Perceptions of Clinical Trials Among Young Adults (20-35) in Mumbai and Dublin: A Comparative Study of Awareness and Participation Willingness" is the initial result of my independent work, which is being carried forward under the guidance of my supervisor, Elizabeth Russell. I affirm that the initial work has not been submitted, either in whole or in any parts, for the award of any other academic degree or for any diploma in any institution. All the sources of my information as well as references, have been used in this project and are duly acknowledged. I take full responsibility for the originality, authenticity, as well as accuracy of the data and findings as presented. This project has represented my efforts as well as a sincere contribution based on the chosen study.

Candidate name: Ketki Rajaram Vishe Date: 24/08/2025
Candidate Signature: 

Supervisor Name: Elizabeth Russell Date: 24/08/2025
Supervisor signature: *Liz Russell*

Acknowledgement

I am deeply grateful to God for this wonderful life and to my parents for their unwavering support and guidance. Special thanks to my supervisor, Professor Elizabeth Russell, for her constant help and encouragement throughout my research journey. I thank all the participants who took the time to complete the survey, as well as the interviewees who gave me their valuable time from their busy schedules and helped me complete my dissertation. Also, I'm grateful to Griffith College for giving me this opportunity and my friends and family for their support towards the completion of the dissertation.

Abstract

This dissertation looks at how young adults (aged 20–35) in Mumbai and Dublin think about clinical trials. The aim was to compare their awareness, willingness to participate, and the barriers they face. To achieve this aim, the research followed a mixed-methods design. A total of 120 participants (60 from Mumbai and 60 from Dublin, with equal representation from healthcare and non-healthcare backgrounds) completed an online survey. In addition, qualitative insights were gathered through open-ended responses from 10 participants to capture deeper reflections on trust, safety concerns, and cultural influences. This approach provided both a broad overview of patterns and richer, context-specific perspectives.

The findings revealed that while general awareness of clinical trials was high in both cities (83.3% of respondents had heard of them), detailed understanding of processes, ethical oversight, and participant rights remained moderate. Trust and safety emerged as the most decisive factors in shaping willingness to participate. Fear of side effects (reported by 75% of respondents) and concerns about being "treated like a test subject" were key barriers, while family influence also played a role in both cultural settings. Interestingly, the comparison showed that young adults in Mumbai and Dublin shared more similarities than differences: both groups displayed cautious willingness, similar reliance on healthcare professionals for information, and skepticism towards social media advertisements. The most striking difference was that healthcare-educated participants in both cities consistently showed higher levels of understanding, trust, and willingness to participate than their non-healthcare counterparts, highlighting the importance of education over cultural background.

The study concludes that while culture influences perceptions to some extent, globalization, digital access, and shared concerns about safety and trust have created strong cross-cultural similarities. The findings suggest that improving youth participation in clinical trials requires transparent communication, trust-building initiatives, and targeted education rather than relying solely on cultural tailoring. Practical recommendations include using healthcare professionals as primary communicators, integrating clinical trial literacy into educational programs, and leveraging digital platforms for awareness while avoiding over-reliance on advertising.

This research contributes to the growing body of literature by filling a gap in understanding young, healthy adults' views in a cross-cultural context. It emphasizes that education and trust are more critical than nationality in determining willingness to engage in clinical trials. For industry and regulators, these insights provide valuable guidance on designing recruitment strategies that are both ethical and effective. For me as a student, the dissertation was a meaningful learning process, as it connected pharmaceutical business and technology with real-world challenges of clinical research engagement.

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List of Abbreviations

Abbreviation	Full Form
WHO	World Health Organization
HIV	Human Immunodeficiency Virus
FDA	Food & Drug Administration
ICH	International Council for Harmonisation
EU	European Union
CRO	clinical research organizations
LMIC	Low and Middle-Income Countries
SD	Standard Deviation
HPRA	Health Products Regulatory Authority
CDSCO	Central Drug Standard Control Organisation

CHAPTER 1

INTRODUCTION

1.1 Overview of the Chapter

Chapter 1 introduces the topic of clinical trials and explains why they are important for developing new medicines. It shows that one of the biggest problems in clinical trials is finding enough people to join, especially young adults. The chapter explains why people aged 20–35 are often chosen for early-stage trials and why we need to understand their views better. It also talks about how different countries, like India and Ireland, have different rules and cultures that can affect how young people feel about joining a trial. The chapter ends by sharing the aim, objectives, research questions, and the main problem this study wants to solve.

1.2 Importance of Clinical Trials

Clinical trials represent the importance of modern medical innovations, serving as a critical pathway through which new treatments transition from laboratory discoveries to life-saving therapies for patients worldwide.(WHO, 2023) These carefully designed research studies have enabled countless medical breakthroughs, from the development of antiretroviral drugs that transformed HIV treatment to innovative cancer therapies that have extended and improved millions of lives. The global clinical research enterprise generates approximately $160 billion annually and involves over 1.7 million participants across 80,000 pharmaceutical-sponsored trials worldwide. (WHO, 2023)

Clinical trials are really important for discovering new medicines and treatments, but they rely heavily on people volunteering to take part. Unfortunately, getting enough volunteers is a huge problem for researchers. Recent studies (Jonca Bull, MD *et al.*, 2015) show that about 19% of clinical trials either don't finish or get stopped early because not enough people sign up. This makes it harder and slower to develop new treatments, wastes money and resources, and can even make the results of the research less trustworthy.
However, the success of clinical trials heavily relies on the participation of diverse populations, including young adults. The age group of 20-35 years represents a critical demographic, as they are often early adopters of new technologies and are more likely to engage in health-related research. Despite this, their perspectives on clinical trials remain underexplored, particularly in cross-cultural contexts.

Young adults in the 20–35 age group are frequently recruited for early-phase clinical trials. This age group is commonly selected for Phase I and II trials due to their relative physical health and lower risk of comorbidities, which helps reduce confounding factors and improve data clarity (Pasqualetti *et al.*, 2010). This age group is an ideal group for the trials of Reproductive health & contraception, Mental health, Lifestyle disease conditions, and Vaccines & immune therapies. This age group generally shows higher adherence rates and lower dropout rates, which enhances the methodological robustness of participation-focused research (Luchtenberg *et al.*, 2015), which is important for ethical considerations.

Additionally, this age group is at a developmental stage characterized by emerging self-identity, global awareness, and increased autonomy in decision-making. They are therefore ideally positioned for a cross-cultural comparative study focused on perceptions, awareness, and willingness to participate in clinical trials. As clinical trials become more globalized, understanding the mindset of young adults in urban, culturally diverse settings like Mumbai and Dublin provides critical insights for recruitment strategies. (Kohli *et al.*, 2022)

Clinical trials are carefully designed research studies in human volunteers to evaluate new medical interventions of drugs, vaccines, etc, to evaluate their safety and efficacy. These trials typically have four phases (I to IV), each phase has distinct objectives (FDA, 2019). Phase I trials are conducted in small groups & rely heavily on healthy volunteers except in cases involving serious conditions like cancer or HIV, where patients with advanced disease may participate. The primary objectives are to establish the maximum tolerated dose and to understand how the treatment affects the body (ICH, 2022). Typical Phase I protocols start with very low doses in a few volunteers and gradually escalate the dose while closely monitoring for toxicity (Torres-Saavedra and Winter, 2022). It also collects pharmacokinetic data (how the body absorbs, distributes, metabolizes, and excretes the drug) to guide dosing.

In contrast, Phase II trials generally expand to include patients with the disease of interest to obtain early evidence of efficacy and to help identify the optimal dose and regimen (Torres-Saavedra and Winter, 2022). (Some Phase II studies may include a small healthy cohort for additional safety checks before expanding to patients.) Both Phase I and II trials prioritize safety & involve careful oversight by investigators and ethics committees (ICH, 2022). In later phases (Phase III & IV), trials shift focus to comparisons and long-term outcomes. (American Cancer Society, 2025)

The governance of clinical trials varies substantially across different countries, creating distinct regulatory environments that may influence public perceptions and participation patterns. In Mumbai (India), the Central Drugs Standard Control Organization (CDSCO) under the Ministry of Health is the main regulatory authority, with the Drugs Controller General of India (DCGI), responsible for approving all new clinical trials. The regulatory framework is governed by the Drugs and Cosmetics Act (1940) and the New Drugs and Clinical Trials Rules (2019), which establish comprehensive standards for trial conduct and participant safety (CDSCO, 2019). Additionally, the Indian Council of Medical Research (ICMR) provides ethical guidelines for biomedical research involving human participants (ICMR, 2017).

In contrast, in Dublin (Ireland), the clinical trial landscape operates under the national authority, Health Products Regulatory Authority (HPRA), which regulates medicines, medical devices, and clinical trials within the European Union framework (HPRA, 2022). All trials must also receive an ethics opinion from Ireland's National Research Ethics Committee (NREC) system to protect participants. Ireland follows European Union law for trials; for example, the EU's Clinical Trials Regulation (EU 536/2014) took effect in 2022, standardizing trial approval and safety requirements across member countries. (European Union 2014; HPRA 2022).

These regulatory differences may significantly impact young adults' perceptions of clinical trial safety, trustworthiness, and accessibility. The varying approval processes, ethical oversight mechanisms, and regulatory transparency levels across countries create distinct contexts within which clinical trial participation decisions are made. Understanding how these regulatory variations influence young adult attitudes toward clinical research participation represents an important consideration for developing effective cross-cultural recruitment strategies.

This comparative study aims to address the critical knowledge gap regarding cross-cultural perceptions of clinical trials among young adults by examining awareness levels, attitudes, and participation willingness in two culturally distinct metropolitan environments. Mumbai

and Dublin, two culturally and socioeconomically distinct cities, provide an excellent framework for examining how young adults perceive clinical trials. Mumbai, a bustling metropolis in India, represents a rapidly developing healthcare landscape with a growing emphasis on clinical research. Dublin, on the other hand, is a hub for pharmaceutical innovation in Europe, with a well-established clinical trial infrastructure. By comparing the attitudes, awareness, and trust levels of young adults in these two cities, this study aims to uncover the factors that influence their willingness to participate in clinical trials.

1.3 Background Study

Clinical trials are essential; however, public perception and participation in these trials vary significantly across different cultural and geographical contexts. Among young adults, understanding of clinical trials can be limited due to a combination of insufficient outreach, mistrust, and cultural taboos (Sinha et al., 2023). Figer et al. (2020) also found limited awareness and mistrust. In India, particularly in urban centers like Mumbai, socio-economic diversity and historical instances of unethical trials have contributed to wariness regarding clinical research. Conversely, in cities like Dublin, while clinical research is widely supported institutionally, there remains hesitancy among young populations due to a lack of awareness or perceived personal benefit.

Another study by Walsh and Sheridan (2016) found that patient participation in clinical trials in Ireland is influenced by barriers such as lack of awareness, mistrust, and logistical challenges, while trust in healthcare providers and clear communication act as facilitators. Similarly, this study also did not focus on young people or provide cross-cultural insights. A survey by King et al. (2025) identified barriers such as fear of side effects, lack of information, and mistrust among cancer and non-cancer patients to assess their willingness to participate in clinical trials

This topic holds significant value for my MSc. in Pharma Business & Technology as it bridges pharmaceutical business strategies with cultural insights, addressing a key industry challenge: diverse and inclusive clinical trial participation. Comparing awareness and willingness in two distinct regions provides actionable data for pharma companies, CROs, and policymakers to improve trial recruitment, ethical engagement, and global market strategies. This aligns with my course's focus on pharmaceutical commercialization, regulatory compliance, and technology-driven healthcare solutions, making it both academically rigorous and industry-relevant.

1.4 Problem Statement

Clinical trials are essential, but many of them struggle to find enough volunteers, especially young adults. This is a serious issue because young people aged 20–35 are often needed for early-stage trials, yet we don't fully understand what they think about clinical trials or why they might choose to take part—or not.

Most research so far has focused on older adults, patients with specific illnesses, or only one country at a time. As a result, we don't know much about how healthy young adults in different parts of the world view clinical trials. Things like trust in the healthcare system, cultural beliefs, education, and social media can all affect their opinions, and these factors can be very different between countries like India and Ireland.

This study looks at young adults in Mumbai and Dublin to explore what they know about clinical trials, what influences their decisions, and what might encourage or stop them from taking part. Understanding these differences can help researchers and companies improve how they recruit volunteers and make clinical trials more diverse and effective.

1.5 Title

"Cross-Cultural Perceptions of Clinical Trials Among Young Adults (20-35) in Mumbai and Dublin: A Comparative Study of Awareness and Participation Willingness."

Aim

This study aims to explore and compare the perspectives, attitudes, and awareness of young adults (aged 20-35) regarding clinical trials in Mumbai and Dublin, identifying key motivators, barriers, and cultural influences that shape their willingness to participate. To find a solution to improve participation rates in clinical trials.

1.6 Objectives

1. Address the nature of participation and investigate the current level of awareness and knowledge about clinical trials among young adults in Mumbai and Dublin.
    - Investigate how much young adults know about clinical trials, their purpose, and their importance in medical research.

2. The impact of social media misinformation on clinical trials recruitment in Mumbai & Dublin.
    - Role of digital health technology in recruiting young adults for clinical trials
    - If possible, clinical trial recruitment and participants' interviews.

3. Public perception & willingness to participate in the pharmaceutical market & research in Mumbai & Dublin.
    - Investigate how cultural beliefs, family influence, education, and socioeconomic status shape perspectives

4. To examine the barriers and concerns that deter young adults from participating in clinical trials.
- Analyze issues such as fear of side effects, lack of trust in healthcare systems, ethical concerns, and logistical challenges.

5. To provide recommendations for improving youth engagement in clinical trials in both cities.
- strategies for increasing awareness, addressing concerns, and fostering trust among young adults.

1.7 Research Questions

1. What is the young adults' perception, awareness & knowledge about clinical trials from both cities (Mumbai & Dublin)?
2. How does social media information influence young adults from both cities?

3. What is the willingness of young adults to participate in clinical trials?
4. What are the barriers that stop young adults from participating in clinical trials?

1.8 Significance of research

This research is important because it focuses on young adults aged 20–35, a group often involved in early-stage clinical trials but rarely studied in terms of their views and experiences. By comparing young people in Mumbai (India) and Dublin (Ireland), the study provides valuable cross-cultural insights into how different backgrounds, beliefs, and healthcare systems shape their understanding and willingness to take part in trials. It helps identify what motivates or discourages young adults from participating, and how digital media and misinformation may influence their decisions. These findings can help pharmaceutical companies and clinical research organizations (CROs) improve how they communicate, educate, and recruit young people more effectively and ethically. The study supports fair and diverse participation in trials and adds academic value by addressing a gap in research on young, healthy individuals, especially in different cultural settings.

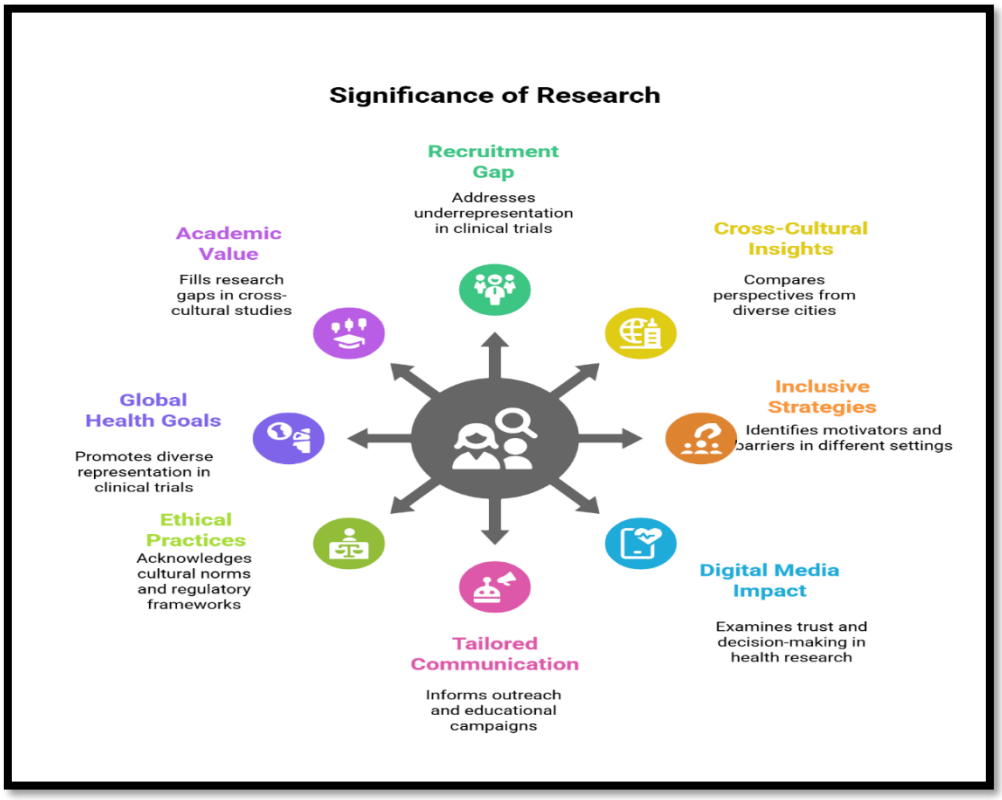

Fig 1.7: Visual representation of research significance.

(Source: Created by the author using Napkin.ai.)

1.9 Dissertation Structure

Chapter 1: Introduction – This provides the context of the research in the form of the importance of clinical trials, the study's background, problem statement, title, aim, and objectives, as well as the significance of the organization of the research.

Chapter 2: Literature Review – This chapter examines what has been discussed in previous research regarding awareness, knowledge, cultural, and ethical perceptions of clinical trials. It

includes barriers and motivation for participation in clinical trials. It serves to establish the theoretical building block of the study.

Chapter 3: Research Methodology – This includes the research approach, the philosophy, the research design, the methods of data collection, and data analysis. This section also includes ethical considerations.

Chapter 4: Findings and Analysis – This chapter will present and analyse the data that was collected from the research participants in relation to the research questions and objectives. Patterns and themes will be discussed.

Chapter 5: Conclusion – This final chapter provides a synopsis of the research, presents the most significant findings, discusses the limitations of the research, and provides recommendations for further work in the field.

CHAPTER 2
LITERATURE SURVEY

2.1 Overview

In this chapter, recent literature has highlighted the significance of public perceptions in influencing clinical trial participation, particularly among younger demographics. Cross-cultural research remains sparse, especially comparative studies involving diverse cities like Mumbai and Dublin. This review uses recent, peer-reviewed, and open-access articles to explore themes central to this research: awareness, cultural perception, institutional influence, and barriers to participation.

2.2 Awareness and Knowledge of Clinical Trials

Awareness is a critical factor in clinical trial participation. Studies indicate that young adults in low- and middle-income countries (LMICs) like India often have limited awareness of clinical trials due to inadequate health education (Kumar et al., 2019). According to Pillai et al. 2024), knowledge about clinical trials among Indian participants is often inadequate and regionally variable. Their multicentric study revealed that only a fraction of participants were aware of trial processes and their rights, usually relying on healthcare providers for information. In contrast, Irish participants show higher awareness but remain hesitant due to historical mistrust (Murphy & O'Sullivan, 2022).
Studies indicate that young adults often lack sufficient knowledge about clinical trials, leading to hesitancy (Lim et al., 2017 Similarly, Williams et al. (2025) highlighted that Australian ovarian cancer patients relied heavily on self-research due to insufficient information from healthcare providers. These findings suggest that awareness campaigns tailored to young adults are needed, particularly in diverse cultural settings.

2.3 Cultural Perceptions and Ethical Perception

Cultural values shape attitudes toward medical research. Schwartz et al. (2023) emphasize that trust in healthcare systems varies across cultures, affecting trial participation. In collectivist societies like India, family opinions heavily influence decisions, whereas in individualist cultures like Ireland, personal autonomy plays a larger role (Madsen et al., 2002). Additionally, in India, traditional beliefs and historical mistrust stemming from unethical trial conduct have shaped negative perceptions (Mendiratta et al., 2023). Religious and societal norms in Mumbai may create hesitancy, while in Ireland, ethics and oversight are more established, and cultural sensitivity in trial design is still evolving. These cultural frameworks influence how young people perceive the risk-benefit ratio of participating in a trial (Shea et al., 2022). Dublin's well-established clinical research infrastructure may foster greater trust. These differences highlight the need for culturally sensitive recruitment strategies.

2.4 Barriers and Motivation for Participation

Common barriers include fear of side effects, mistrust, and logistical challenges (King et al., 2025). In Malaysia, King et al. (2025) found that only 29.9% of participants had adequate clinical trial knowledge, with misinformation being a major barrier. However, motivations differ across cultures. Altruism is a strong driver in Western countries, whereas personal health benefits are prioritized in Asian contexts (Williams et al., 2025). Young adults, in particular, may be influenced by digital media, which can either dispel myths or propagate misinformation (Schwartz et al., 2023). Understanding these factors is crucial for improving

recruitment in diverse populations. Educational institutions play a pivotal role in shaping clinical research literacy. In Mumbai, awareness campaigns are often limited to urban centers, neglecting diversity within city populations (Sinha et al., 2023). This indicates the need for targeted interventions that consider both educational level and cultural nuances.

2.5 Critique of Figer et al. (2020)

Figer, B. H., Lamture, S. S., Gandhi, T., Chauhan, A., Gvalani, A., Gogtay, N. J., & Thatte, U. M. (2020). A survey of knowledge and variables influencing perceptions about clinical research: A cross-sectional study from Mumbai. Perspectives in Clinical Research, 12(2), 93. https://doi.org/10.4103/picr.PICR_97_19

This source, "A survey of knowledge and variables influencing perceptions about clinical research: A cross-sectional study from Mumbai," is highly relevant and useful for research on cross-cultural perceptions of clinical trials, specifically regarding young adults in Mumbai. The study assesses awareness, understanding, and factors influencing perceptions of clinical research (CR) among people in Mumbai, which directly aligns with the research objectives.

The study's methodology, involving a 48-item questionnaire administered to 400 participants, provides a quantitative basis for understanding these perceptions. The questionnaire covers themes like awareness and participation, voluntariness and autonomy, compensation, confidentiality, and safety, offering a comprehensive view of the factors influencing willingness to participate in clinical trials. The demographic data collected, including age, gender, socioeconomic class, and education, allows for analysis of how these variables affect perceptions, which is crucial for cross-cultural comparisons.

The findings reveal that only 52.5% of participants were aware of CR, and even fewer were informed about their rights and compensation, highlighting areas for improvement in awareness programs. Socioeconomic class and age significantly influenced awareness, and gender impacted the perceived need for permission to participate. This data can be compared with similar studies conducted in Dublin to identify cultural differences and similarities in perceptions of clinical trials.

However, the study is limited by its cross-sectional design, which prevents drawing causal inferences and potential selection bias. Despite these limitations, it provides valuable baseline data on CR awareness and perceptions in Mumbai, making it a relevant and useful source for the stated research objectives.

2.6 Research Gaps and Further Research Directions Identified from the Literature:

1. Lack of Focus on Young Adults:
    - The articles primarily focus on older adults, cancer patients, or specific disease groups, with little attention to young adults' perceptions and willingness to participate in clinical trials.
    - My research proposal addresses this gap by specifically targeting young adults in Mumbai and Dublin.

2. Limited Cross-Cultural Comparisons:
    - Most studies are confined to single regions or countries (e.g., Australia, Malaysia, Denmark) and do not compare attitudes across diverse cultural contexts.
    - This study fills this gap by comparing perceptions between Mumbai (India) and Dublin (Ireland), highlighting cultural influences on clinical trial participation.

3. Underrepresentation of Non-Patient Populations:
    - The studies mainly involve patients (e.g., cancer patients, ovarian cancer survivors), neglecting healthy young adults who are also critical for preventive and early-phase trials.

    - This proposal includes young adults regardless of their health status, broadening the scope.

4. Insufficient Exploration of Awareness and Education**:**
    - While barriers like lack of awareness are noted, few studies investigate how awareness campaigns or education could improve participation.

    - My study could explore how awareness levels differ between Mumbai and Dublin and suggest targeted educational interventions.

5. Cultural and Religious Barriers**:**

    - The Malaysian study briefly mentions religious barriers, but deeper cultural or societal influences (e.g., trust in medical systems, stigma) are underexplored.

    - This comparative approach can uncover how cultural norms in Mumbai (e.g., familial influence, traditional medicine) and Dublin (e.g., individualism, healthcare access) shape perceptions.

6. Role of Digital and Social Media**:**

    - The Australian study notes social media as an information source, but its role in shaping perceptions or recruiting young adults is not deeply analyzed.

    - This study could examine how digital platforms influence awareness and willingness in both cities.

2.7 <u>Conclusion:</u>

My proposal, "Cross-Cultural Perceptions of Clinical Trials Among Young Adults in Mumbai and Dublin," directly tackles these gaps by:

- Focusing on young adults, a demographic often overlooked in clinical trial research.

- Conducting a cross-cultural comparison between two distinct regions (Mumbai and Dublin), revealing how cultural contexts affect perceptions.
- Investigating awareness levels and willingness to participate, with potential recommendations for tailored outreach.
- Exploring cultural, religious, and societal influences on decision-making, such as trust in healthcare systems or familial attitudes.
- Assessing the role of digital media in disseminating information about clinical trials.

By addressing these gaps, this study will contribute novel insights into global clinical trial recruitment strategies, emphasizing the importance of cultural sensitivity.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Overview

This chapter explains how the research was planned and carried out using the Research Onion framework. It follows a pragmatist approach, meaning both facts (quantitative data) and personal opinions (qualitative data) are used to understand how young adults in Mumbai and Dublin view clinical trials. A mixed-methods strategy was chosen, combining online surveys and open-ended interviews (via Google Forms).

The survey helps measure general awareness, trust, and willingness to take part in clinical trials, while the open-ended questions help explore deeper views, experiences, and cultural influences. Around 120 people (60 from each city, with a mix of healthcare and non-healthcare backgrounds) took part in the survey, and 10 participants were selected for in-depth interviews. The data is collected at one point in time (cross-sectional) and analysed using statistics for the survey and theme analysis for open-ended responses.

Special care was taken to follow ethical guidelines such as getting informed consent, protecting privacy, and ensuring cultural sensitivity. The study also faced challenges like online access issues and potential response bias, which were managed with clear instructions, a mobile-friendly design, and neutral question wording.

Overall, this research method was chosen because it suits the aim of comparing views across cultures and collecting both broad patterns and rich personal stories

Primary research strategy by using the Research Onion Framework

The study employs a mixed-methods comparative investigation of clinical trial perceptions among young adults (20-35 years) in Mumbai and Dublin guided by Saunders' Research Onion (2019), which structures research design across six layers:

3.2 Research Philosophy

The study adopts a pragmatist philosophy, which allows combining diverse methods to address both objective and subjective aspects of the research question. Pragmatism "supports the use of different research methods" and a mix of inductive, deductive, and abductive reasoning. In practice, this means treating knowledge, both facts and personal views, to understand what young people in Mumbai and Dublin think about clinical trials. As Saunders et al. note, pragmatism effectively bridges positivist (objective) and interpretivist (subjective) paradigms. (Saunders et al., 2019). This aligns with my aim to capture measurable trends (via surveys) and personal attitudes (via interviews/ open-ended Google Forms) in a unified framework.

3.2.1 Research Approach: Abductive

An abductive approach underlies the investigation. Abduction allows for moving between theory and data to generate plausible explanations for unexpected findings. In this study, survey results may reveal surprising patterns of awareness or trust, which will inform the qualitative inquiry, and vice versa. This approach works well for mixed-methods research because it permits an initial hypothesis (deductive reasoning) and also discovers new themes from the data itself (inductive reasoning). Abductive reasoning fits this flexible way of thinking, where we focus on finding what works best to understand a problem (Saunders et al., 2019). So, this research will keep moving between testing existing ideas and uncovering

new insights, using all three ways of thinking, deductive, inductive, and abductive, to fully understand young adults' perspectives.

3.3. Research Strategy

A mixed-methods strategy will be used, which includes quantitative and qualitative elements. A cross-sectional online survey (quantitative) will capture broad measures of awareness, willingness, social media impact, and perceptions among approximately 60 participants in each city (Mumbai and Dublin). 30 of them are from the healthcare profession and 30 from the non-healthcare profession (numbers are approximate, depending on the response to the survey). In parallel, semi-structured interviews (qualitative) or open-ended Google form surveys will explore motivations, cultural values, and trust in more depth with a small purposive sample (10 adults total), 2-3 of them participants, 3 of them from the healthcare profession, and 3 of them from the non-healthcare profession. Mixed methods are justified here because they "provide researchers with the ability to design a single study that answers questions regarding the nature of the phenomenon from a participant's point of view as well as about the relationship between measurable variables" (Creswell and Plano Clark, 2018; Saunders et al., 2019). In other words, the survey quantifies general trends while open-ended Google form surveys explain their underlying context. This design directly addresses the identified research gaps: it focuses explicitly on young adults and makes a cross-cultural comparison between distinct regions. By including both healthy volunteers and trial-experienced individuals, it overcomes the literature's underrepresentation of non-patient populations (research gap 3). Overall, the mixed strategy helps to get both a broad overview and detailed insights, which is especially important since the topic is not well-researched among young people across cultures.

3.3.1 Time Horizon: Cross-Sectional

A cross-sectional time horizon will be employed. The data is collected at a single point in time in each location. In a cross-sectional design, researchers "collect data from many different individuals at a single point in time" without following them longitudinally. (Saunders et al., 2019). Initially, for qualitative data collection Interview method was selected, but because of time constraints and participants' availability online Open-ended Google form survey was selected. This snapshot approach is practical for comparing Mumbai and Dublin. It provides a baseline of current awareness and attitudes in both cohorts. A cross-sectional study is also efficient and cost-effective, suitable for exploratory comparative research.

3.3.2 Data Collection & Analysis

- **Quantitative Survey:** An online questionnaire will be administered via social media, university mailing lists, and professional forums. The survey will consist of closed-ended questions (Likert scales, multiple-choice, yes/no) measuring key variables: awareness of clinical trials (e.g., "Have you heard of clinical trials?"), sources of information, willingness to participate (e.g., willingness score), trust in research institutions, perceived benefits and risks, and demographic factors (age, education, etc.). Distributing the survey on platforms popular with 20–35-year-olds (e.g., Instagram, Facebook, LinkedIn) helps reach a diverse young adult sample. The survey format ensures standardized data for statistical analysis and aligns with the study's

aims (objectives 1–3) to quantify knowledge levels, gauge the impact of misinformation via social media, and assess cultural influences on participation intent.

- **Qualitative Interviews:** Semi-structured interviews will collect primary data through an open-ended survey via Google Forms. This method is suitable for qualitative research because it provides the participants the freedom to respond as quickly as they can, as long as they provide in-depth, open-ended answers that represent the issues they raise (Lim, 2024). It will be conducted by open-ended surveys with a small purposive sample in each city. Specifically, we will recruit 2-3 young adults who have recently participated in a clinical trial and 2–3 general young professionals, and 2-3 general non-healthcare people. This strategy captures both first-hand participant experiences and broader community perspectives. The open-ended surveys will cover topics such as personal attitudes toward trials, family or cultural influences on decision-making, trust in medical systems, ethical concerns, and the role of media in shaping opinions. This open-ended format allows exploration of themes (e.g., stigma, altruism, autonomy) raised in the literature. Interviews will be recorded and transcribed for analysis. Semi-structured open-ended questions are chosen for their flexibility and enabling depth knowledge questions that probe complex issues uncovered in the survey (Bryman, 2016)

3.3.3 Data Analysis Methods

- **Quantitative Analysis:** Survey responses will be coded and analyzed using descriptive and inferential statistics. Descriptive statistics (means, standard deviations, frequencies, and percentages) will summarize the sample's awareness of trials, average willingness scores, and demographic patterns. To compare Mumbai and Dublin respondents, analyses will reveal whether young adults in the two cities differ significantly in their clinical trial awareness and attitudes, addressing the study's comparative objectives. All quantitative analyses will be conducted in Excel.

- **Qualitative Analysis:** In this study, participants will be asked open-ended questions about their personal experiences, challenges they face, and their opinions on safety practices (Brubacher et al., 2025). These types of questions allow participants to express their thoughts in their own words, which can provide deep and meaningful insights. However, open-ended responses can take more time and effort for both the participant to answer and for the researcher to analyse (Neuert et al., 2021). Before answering the questions, each participant will be given an introduction to the study. This includes an explanation of the purpose of the study and an informed consent statement, which they must agree to before continuing. The interviews will not happen in real time; instead, everything will be done in writing and at the participant's own pace.

  The responses collected will be analysed using Braun and Clarke's six-step process (2022):
  - Getting familiar with the data
  - Generating codes
  - Finding themes
  - Reviewing themes
  - Defining and naming themes
  - Writing up the findings

This clear and organised process helps ensure that the analysis is accurate and follows ethical guidelines, such as avoiding weak or misleading conclusions. Google Forms will be used to collect the data. This tool helps keep the research method professional, while also being easy and convenient for participants to use.

By structuring the research design according to Saunders' onion layers, this strategy ensures coherence from philosophy through to analysis. It directly targets the gaps noted in the literature review (youth focus, cross-cultural scope) while using appropriate methods to meet the study's aims. Each methodological choice, pragmatism, abduction, mixed methods, cross-sectional sampling, combined survey and open-ended Google for interviews, and mixed statistical/thematic analysis, is justified as the best fit for exploring young adults' cross-cultural perceptions of clinical trials.

3.4 Participant profile

- **Healthcare professionals and students** are included because they may already know more about clinical trials. Their opinions help us understand how knowledge and training affect views on participation.

- **Non-healthcare individuals** are included to represent the general public, whose awareness and concerns may be very different. They show us how clinical trials are understood by everyday people.

- **Participants from Mumbai and Dublin** help us compare two different cultures and healthcare systems. This helps us learn how culture, trust, and access to information shape people's views.

This mix of participants gives a well-rounded picture of how young adults think and feel about clinical trials across two cities and professional backgrounds.

3.5 Sampling Method

For Surveys:

This study targets young adults (ages 20–35) in two urban centres: Mumbai and Dublin. The estimated population sizes for this age group are as follows:

- Mumbai: Approx. 5.8 million aged 20–35
- Dublin: Approx. 0.26 million aged 20–35

Given these population sizes, the sample size is calculated using Cochran's finite population correction formula:

Formula

$$n = \frac{Z^2 \cdot p(1-p)}{e^2} \cdot \frac{N}{N + \left(\frac{Z^2 \cdot p(1-p)}{e^2} - 1\right)}$$

n = required sample size
N = population size
Z = z-score corresponding to 95% confidence level (1.96)
p = estimated proportion of the population (assumed to be 0.5 for maximum variability)
e = margin of error (set to 0.05 or 5%)

Mumbai Example

$$n = \frac{(1.96)^2 \cdot 0.5 \cdot 0.5}{0.05^2} \cdot \frac{5{,}800{,}000}{5{,}800{,}000 + \left(\frac{(1.96)^2 \cdot 0.5 \cdot 0.5}{0.05^2} - 1\right)} \approx 384.6$$

Ideal sample size for Mumbai = 385 respondents
(Same result for Dublin if we ignore the correction due to the smaller population.)

Although the combined population of 20–35-year-olds in Mumbai and Dublin exceeds several million, this study is exploratory in nature and focuses on a manageable sub-sample of 120 participants (60 per city).

To justify this sample size:

- Estimated population proportion (P) = 10%
  (Assumes 10% of young adults may have awareness or interest in clinical trials based on prior studies and pilot research.)

Using the formula:

$$n = \frac{(1.96)^2 \cdot 0.10(1 - 0.10)}{0.054^2} = \frac{0.345744}{0.002916} = 118.57 \implies n \approx 119$$

Although the ideal size for generalizability is 119, due to feasibility constraints (time, resources, and recruitment limitations), a **sample of 120** was selected and **equally stratified** across both cities and professional groups.

3.5.1 Feasibility Adjustment

While 385 respondents per city would provide a ±5% margin of error, this exceeds the practical and ethical scope of this study. Therefore, the adjusted feasible sample is:

- **60 participants** per city, divided equally into:
  - **30 with healthcare backgrounds**
  - **30 with non-healthcare backgrounds**

This results in a total of **120 participants**.

Adjusted Margin of Error:

Using the simplified margin of error formula:

$$\text{MoE} = Z \cdot \sqrt{\frac{p(1-p)}{n}} = 1.96 \cdot \sqrt{\frac{0.5 \cdot 0.5}{119}} = 1.96 \cdot \sqrt{\frac{0.25}{119}} = 1.96 \cdot \sqrt{0.0021017} = 1.96$$

$$\text{MoE} = 1.96 \cdot \sqrt{\frac{0.5 \cdot 0.5}{119}} \approx \pm 8.99\%$$

This level of precision is acceptable for exploratory, perception-based research that is not intended to produce generalizable statistical findings, but rather to explore differences and patterns in cross-cultural awareness and willingness related to clinical trial participation.

Summary Table:

Location	Healthcare (n=30)	Non-Healthcare (n=35)	Total
Mumbai	30	30	60
Dublin	30	30	60
Total	**60**	**60**	**120**

Table 1: Summary of size of sample participants

 Healthcare group: medical / nursing students, doctors, nurses, clinical-research personnel.
 Non-healthcare group**:** students or professionals in non-medical fields

3.5.2 Justification for Interview via Google Forms: Sample Size and Composition

Given the exploratory nature of this study, which aims to understand cross-cultural perceptions of clinical trials among young adults in Mumbai and Dublin, a small but strategically diverse sample was selected for in-depth qualitative interviews via open-ended Google form surveys. A total of 8–10 participants were chosen using purposeful sampling to ensure a range of perspectives relevant to clinical trial awareness and participation.
The sample includes:

- 2–3 individuals with direct experience participating in clinical trials, offering first-hand insights into motivations, expectations, and barriers;
- 3 individuals with a healthcare background (e.g., students, professionals, or researchers), who bring an informed viewpoint on clinical research processes, public trust, and ethical considerations;
- 3 individuals from non-healthcare backgrounds, representing the general population and their lay understanding or misconceptions about clinical trials.

This composition balances experiential, professional, and public perspectives, allowing for the identification of common themes and contrasts within a manageable dataset. Although the sample is modest, it aligns with qualitative research guidelines that emphasize thematic

saturation over statistical generalizability. Studies such as Guest, Namey & Chen (2020) show that as few as 6–10 interviews can yield meaningful insights when participants are relatively homogeneous within each subgroup and when the research question is focused.

3.6 Ethical Considerations:

3.6.1 Informed Consent and Autonomy

All participants must give free, informed consent before taking part. The consent process should clearly explain the study's purpose, procedures, voluntary nature, and right to withdraw at any time. In an online survey, this means an explicit consent screen or checkbox (not pre-ticked) before starting. Similarly, for Open-ended Google survey form interviews at the beginning of the Google Form,
participants will be presented with a digital consent section, confirming their informed agreement to participate and their right to withdraw from the study at any stage without penalty.

3.6.2 Privacy, Confidentiality, and Data Protection

Participants' data must be kept confidential and anonymized as far as possible. In the online survey, we will collect only the minimum personal data needed (e.g., age range, education level, city) and avoid storing names or identifying information. Survey platforms will have tracking disabled (no IP logging) to protect anonymity. Collected data will be encrypted and stored on secure, password-protected servers.

3.6.3 Ethical Oversight and Cultural Sensitivity

In cross-cultural work, it is especially important to "maintain sensitivity to cultural and social differences (Hofstede, 2011). Thus, survey questions and interview guides will be reviewed for cultural appropriateness by native speakers and local experts. For example, terminology around clinical trials will be explained in culturally relevant terms, and questions framed to respect local norms.

3.6.4 Uncertainties and Difficulties

Conducting this cross-cultural, online study poses several practical challenges: Selection and Response Bias: Those with positive attitudes towards research or higher education may be more likely to participate, skewing results. To reduce this bias, the survey will be kept brief and neutral in tone (Bryman, 2016; Saunders et al., 2019). Interview questions will be carefully worded to avoid leading responses. We will also use attention-check questions to ensure data quality.

Digital Divide and Accessibility: Some participants (especially in Mumbai) may have limited internet access or bandwidth. This may affect who can take the online survey. To mitigate this, the survey will be mobile-friendly (many users may only have smartphones) and not require high-speed connections. We will offer flexibility in interview mode by conducting surveys via Google form so participants can fill out the data from anywhere and at any time as per their convenience and feasibility.

3.7 Conceptual framework

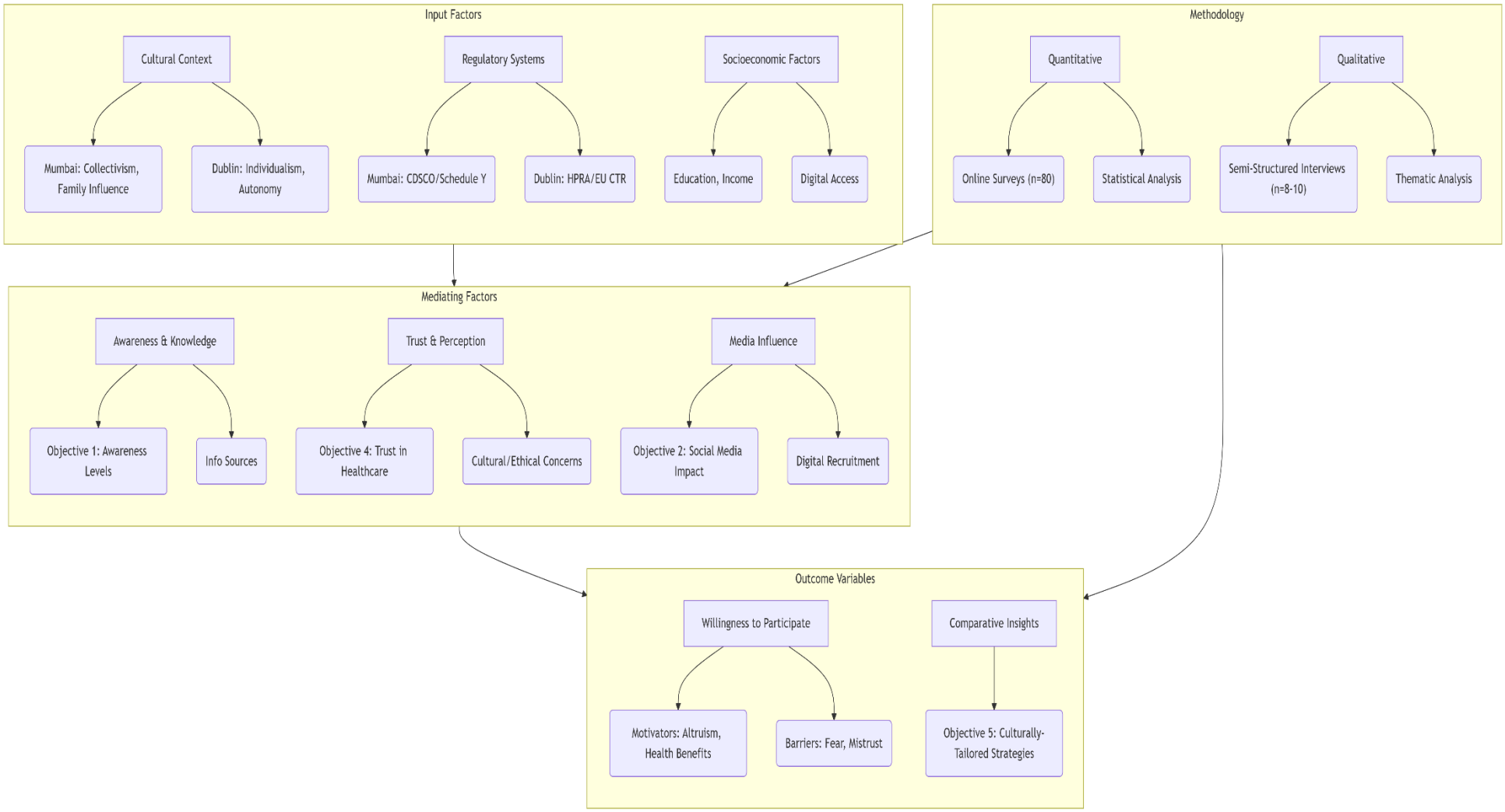

Fig 3.7: Conceptual Framework

CHAPTER 4
FINDINGS & ANALYSIS

4.1 Overview

This chapter presents and analyses the primary research data collected through a mixed-method strategy, which includes quantitative and qualitative surveys. For the quantitative approach, an online survey of 120 young adults aged 20-35 years from Mumbai (India) and Dublin (Ireland) was conducted. The data collection was conducted from July 11 to August 4, 2025, using a structured questionnaire distributed via social media platforms and professional networks. The findings are organized according to the research objectives outlined in Chapter 1, providing insights into awareness levels, social media influence, participation willingness, and barriers to clinical trial participation among young adults in both cities. This analysis compares results by city (Mumbai vs Dublin) and by respondent background (healthcare vs non-healthcare) throughout.

4.2 Sample Demographics

The survey achieved a balanced representation across key demographic variables, fulfilling the study's stratified sampling requirements. As shown in Figure 4

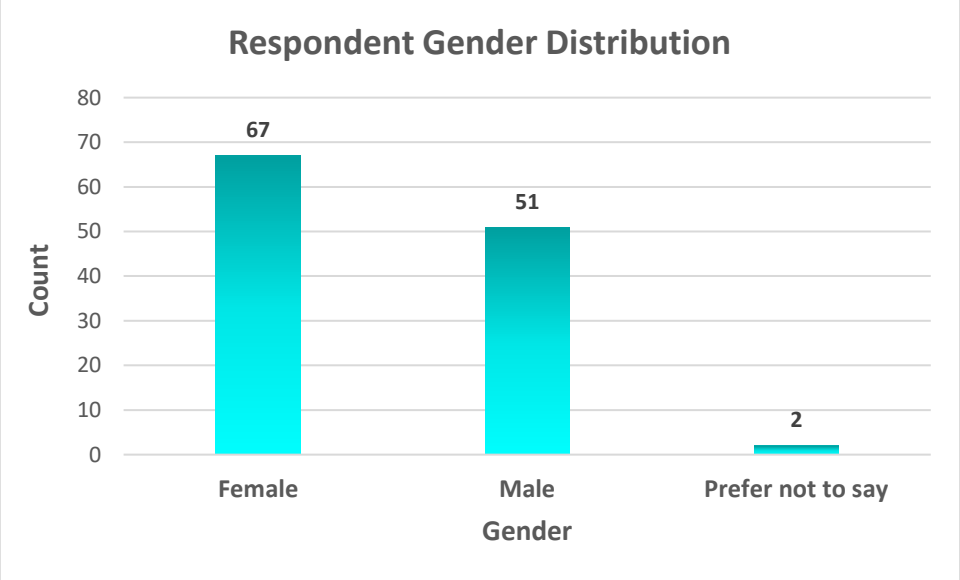

Fig. 4.1. Demographic distribution of survey respondents (N=120)

The total sample of 120 respondents was equally distributed between Mumbai (n = 60, 50%) and Dublin (n = 60, 50%), with a balanced representation of healthcare professionals 60 respondents (n = 30, 50%) and non-healthcare professionals 60 respondents, (n = 30, 50%) from each city.

The age distribution revealed a relatively even spread across the target demographic: 44 respondents (36.7%) were aged 20-25 years, 43 respondents (35.8%) were aged 26-30 years, and 33 respondents (27.5%) were aged 31-35 years. The gender distribution showed a higher proportion of female participants (n=67, 55.8%) compared to male participants (n=51, 42.5%), with 2 respondents (1.7%) preferring not to specify their gender. This gender distribution is consistent with research participation patterns observed in health-related studies (Williams et al., 2025).

4.3 Awareness and Knowledge of Clinical Trials (Objective 1)

4.3.1 General Awareness Levels

The findings reveal high general awareness of clinical trials among young adults in both cities. Of the 120 respondents, 100 (83.3%) indicated they had heard of clinical trials before, while 10 respondents (8.3%) selected "Maybe" and 10 respondents (8.3%) had not heard of clinical trials. This high awareness level contrasts with findings from Kumar et al. (2019), who reported limited awareness in low- and middle-income countries, suggesting that urban young adults in both Mumbai and Dublin have better exposure to clinical trial information.

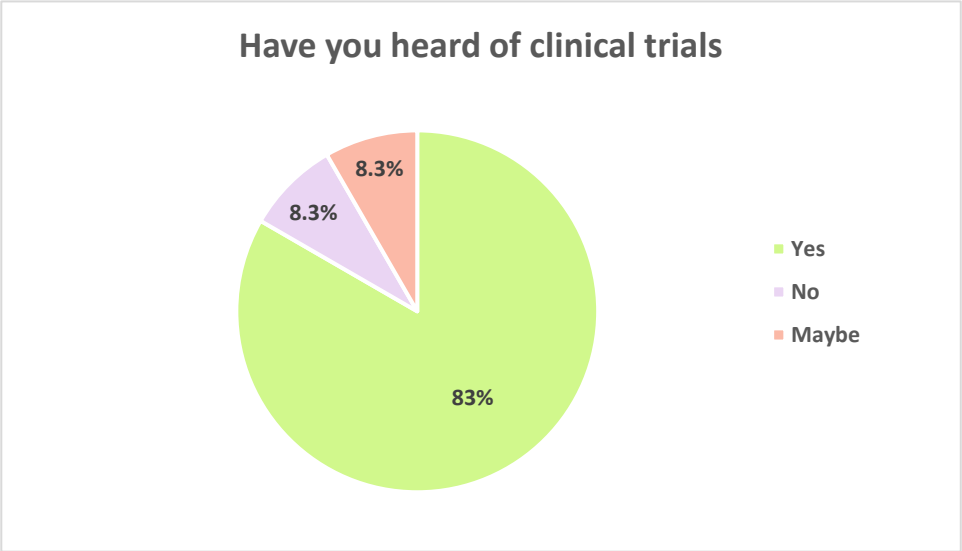

Figure 4.2: Overall clinical trial awareness in Mumbai & Dublin.

Both Mumbai and Dublin have equally high awareness (83.3% "Yes"), and there is no significant city-based gap exists for general awareness.

Here is the breakdown by healthcare background:

- Healthcare (Mumbai): 29/30 “Yes”
- Healthcare (Dublin): 30/30 “Yes”
- Non-healthcare (Mumbai): 21/30 “Yes”
- Non-healthcare (Dublin): 20/30 “Yes”

Awareness is consistently higher among healthcare participants.

4.3.2 Familiarity and Understanding a Cross-Cultural Comparison.

Despite high general awareness, detailed familiarity with clinical trial processes showed room for improvement. On a 5-point familiarity scale, the mean score was 3.02 (SD=1.17), indicating moderate familiarity levels. The distribution showed that 44 respondents (36.7%) reported moderate familiarity (scale 3), while only 39 respondents (32.5%) demonstrated high familiarity (scales 4-5). Notably, 37 respondents (30.8%) showed low familiarity (scales 1-2), highlighting a significant knowledge gap despite general awareness.

If we compare the familiarity rate in Dublin & Mumbai among the Healthcare & Non-Healthcare groups, Healthcare respondents (both cities) report higher familiarity overall. Dublin healthcare participants especially cluster at higher ratings (4–5). Non-healthcare groups are more likely to rate themselves at the lowest familiarity.

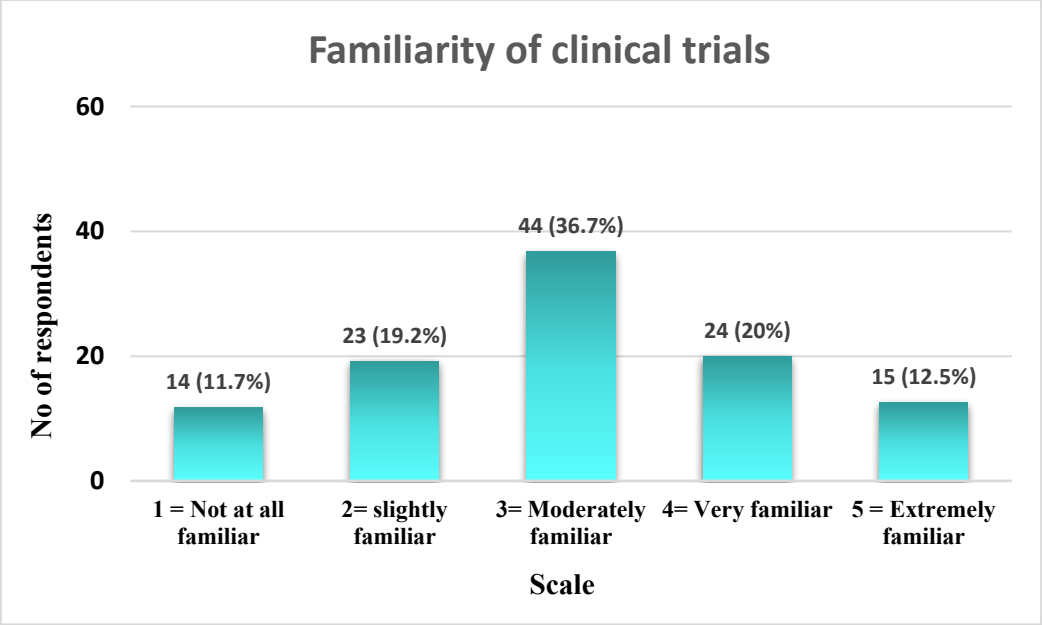

Fig. 4.3: Familiarity of clinical trials in young adults

Understanding ratings followed a similar pattern, with a mean score of 3.30 (SD=1.06). The majority of respondents (41 participants, 34.2%) rated their understanding as "good" (scale 4), while 39 respondents (32.5%) considered their understanding "average" (scale 3). Only 14 respondents (11.7%) claimed "excellent" understanding, while 26 respondents (21.7%) acknowledged poor or no understanding.

The following graph summarizes how respondents in each subgroup rated their understanding of clinical trials, again using a 1 to 5 scale. Healthcare participants (both cities) consistently rate their understanding higher, while non-healthcare respondents, especially in Dublin, are clustered at lower understanding levels.

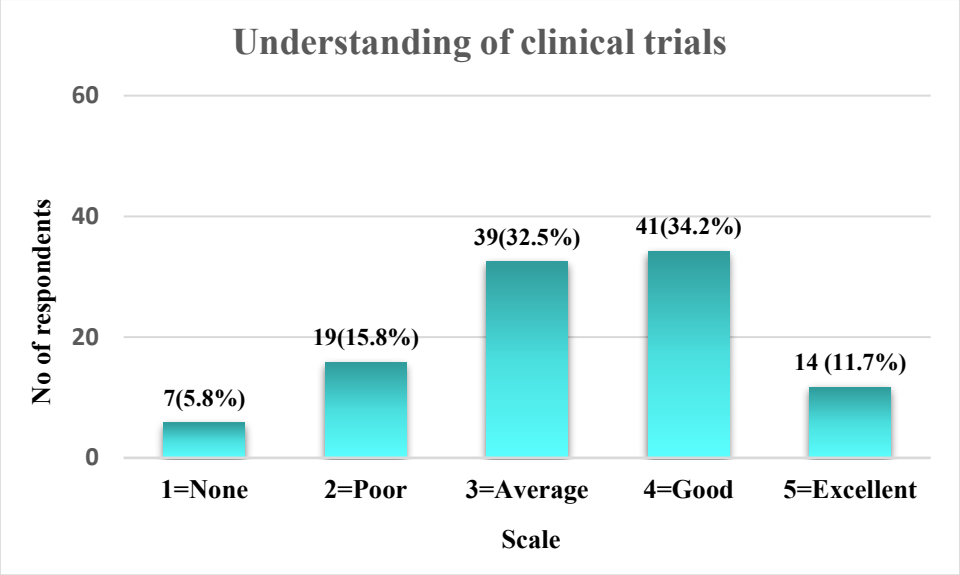

Fig 4.4: Understanding of clinical trials in young adults

4.3.3 Knowledge of Clinical Trial Purpose

The vast majority of respondents (103 participants, 85.8%) correctly identified that clinical trials are conducted "to test how well a medicine works and how safe it is in people," with accuracy highest among healthcare professionals. However, concerning knowledge gaps were evident, with 17 respondents (14.2%) providing incorrect answers or expressing uncertainty. Six respondents (5%) admitted they were "not sure," while 11 respondents (9.2%) selected incorrect options, including "to treat patients without using medication" or "to replace hospital treatments with home remedies."

4.4 Social Media Influence and Digital Technology (Objective 2)

4.4.1 Social Media Exposure

Social media emerged as a significant information source for clinical trials among young adults. 65 respondents (54.2%) reported seeing content about clinical trials on social media platforms, while 55 respondents (45.8%) had not encountered such content. This substantial exposure highlights social media's role in shaping perceptions, consistent with Jackson et al.'s (2024) findings on social media's impact on healthcare information dissemination.

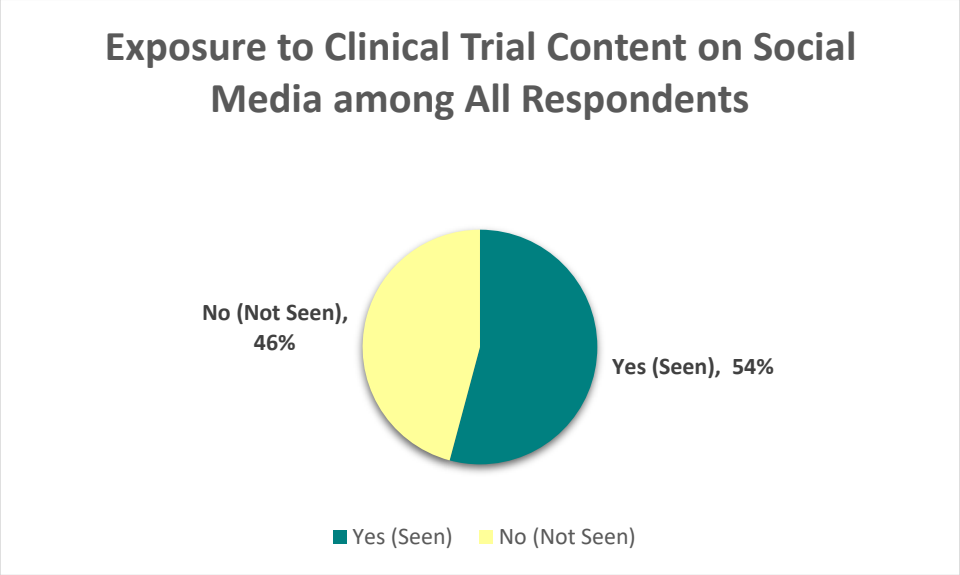

Fig 4.5: Overall exposure to clinical trial content on social media among all respondents

Healthcare participants in both cities had higher exposure rates (60.0% in Mumbai, 56.7% in Dublin) compared to their non-healthcare counterparts (46.7% Mumbai, 53.3% Dublin), which is mentioned in detail in Table 1. While city differences are minimal, professional background shows a consistent influence on exposure, indicating that healthcare engagement may increase awareness of clinical trial information through social media channels. These insights suggest digital platforms are a significant awareness vector, particularly among healthcare subsets, although efforts to broaden reach to non-healthcare youth are warranted.

Group	Yes Count	Total in Group	Percentage (%)
Mumbai Healthcare	18	30	60.0
Mumbai non-healthcare	14	30	46.7
Mumbai Total	**32**	**60**	**53.3**
Dublin Healthcare	17	30	56.7
Dublin non-healthcare	16	30	53.3
Dublin Total	**33**	**60**	**55.0**
Overall Total	**65**	**120**	**54.2**

Table 2: Social media exposure by groups & city.

4.4.2 Misinformation Dublin Prevalence

The study revealed concerning levels of misinformation exposure. 38 respondents (31.7%) reported seeing misinformation about clinical trials on social media, while 53 respondents (44.2%) were "not sure" if they had encountered misinformation. Only 29 respondents (24.2%) were confident they had not seen misinformation. This uncertainty is particularly problematic, as it suggests difficulty in distinguishing reliable from unreliable information sources.

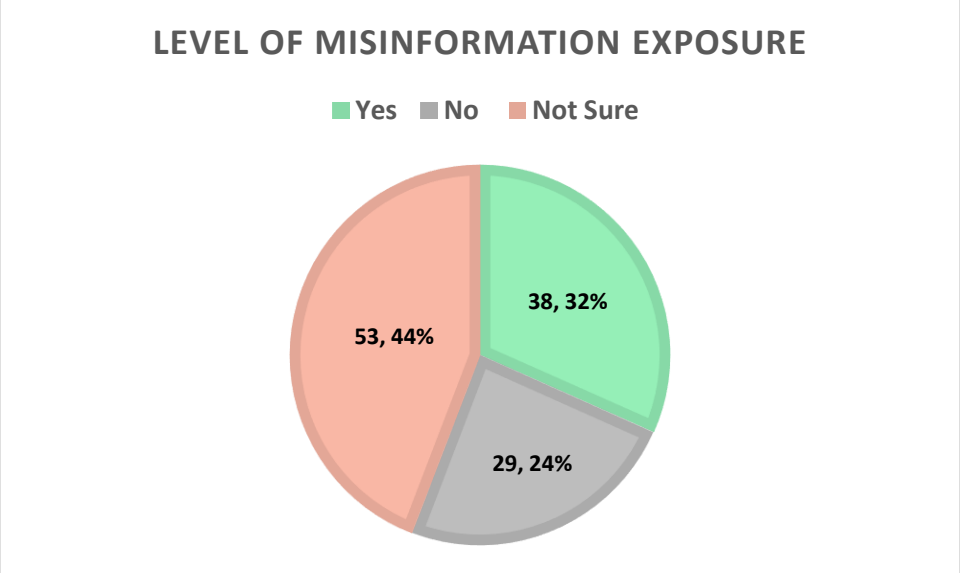

Fig. 4.6 Level of misinformation exposure

Misinformation exposure showed city-specific patterns. Dublin participants reported higher confirmed misinformation exposure (22 participants, 36.7%) compared to Mumbai participants (16 participants, 26.7%). However, Mumbai participants showed higher confidence in avoiding misinformation, with 20 participants (33.3%) reporting no exposure compared to 9 Dublin participants (15%).

4.4.3 Trust in Social Media Advertisements

Trust in social media recruitment advertisements remained notably low across both cities. The mean trust score was 2.29 (SD=1.05) on a 5-point scale, indicating general distrust. 60 respondents (50%) expressed distrust (scales 1-2), while 49 respondents (40.3%) remained neutral. Only 11 respondents (9.2%) expressed some level of trust in social media recruitment advertisements.

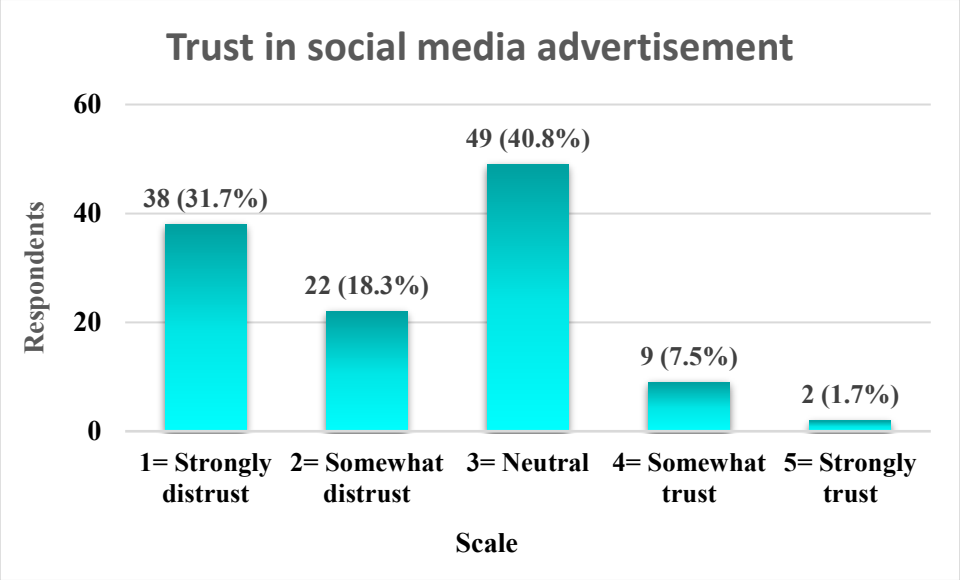

Fig 4.7: Trust in social media advertisement

This low trust level presents a significant challenge for clinical trial recruitment via social media platforms, despite their popularity among young adults. The findings support Schwartz et al.'s (2023) concerns about digital media's potential to both dispel myths and propagate misinformation.

4.4.4 Content Influence on Opinions

Social media content showed mixed influence on clinical trial opinions. 37 respondents (30.8%) reported positive influence, while only 6 respondents (5%) reported negative influence. 51 respondents (42.5%) indicated no impact, and 26 respondents (21.7%) found the question not applicable. The predominantly positive or neutral influence suggests potential for effective social media engagement strategies when properly implemented.

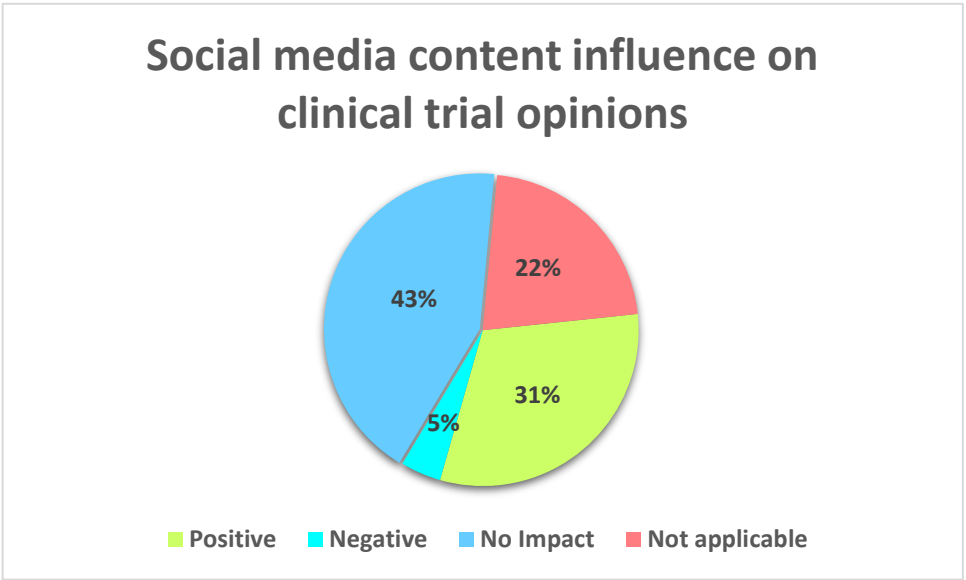

Fig 4.8: Impact of social media on clinical trial opinions

4.4.5 Primary Health Information Sources

Healthcare professionals emerged as the most trusted information source, with 89 participants (74.2%) citing "doctors or healthcare professionals" as their primary health information source. This was followed by websites and online health blogs (53 participants, 44.2%), school/university sources (38 participants, 31.7%), and social media platforms (38 participants, 31.7%). Family and friends ranked fifth (32 participants, 26.7%), while traditional media showed lower usage (11 participants, 9.2%)

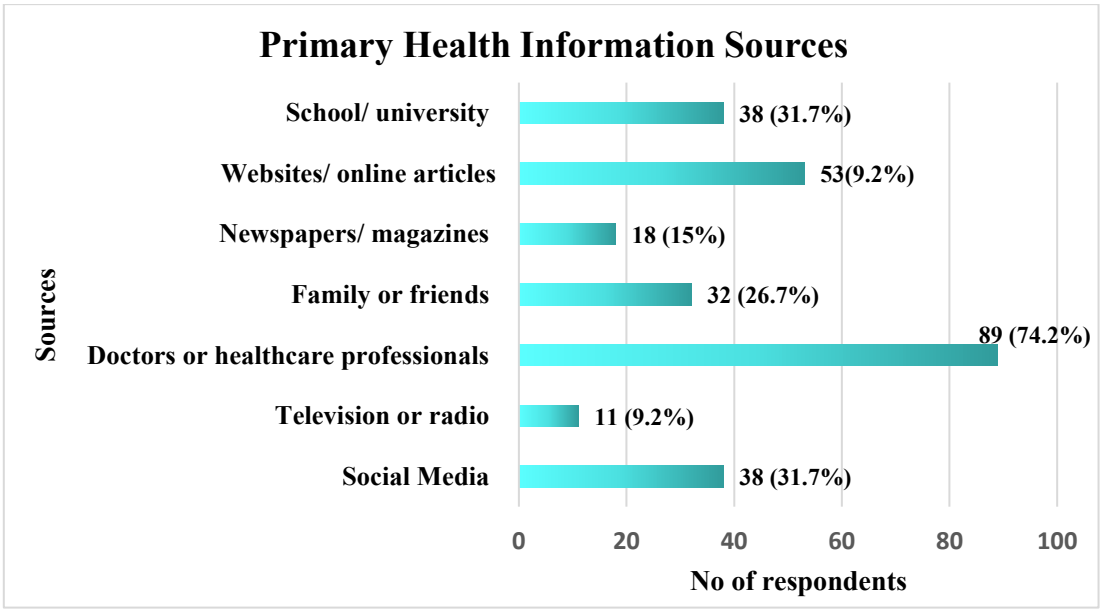

Fig 4.9: Primary health information sources

This hierarchy reinforces the importance of healthcare professional engagement in clinical trial recruitment and education, while acknowledging social media's significant but secondary role.

4.5 Public Perception and Willingness to Participate (Objective 3)

4.5.1 Participation Willingness

Participation willingness showed cautious but potentially positive attitudes among young adults. As depicted in Figure 4.10

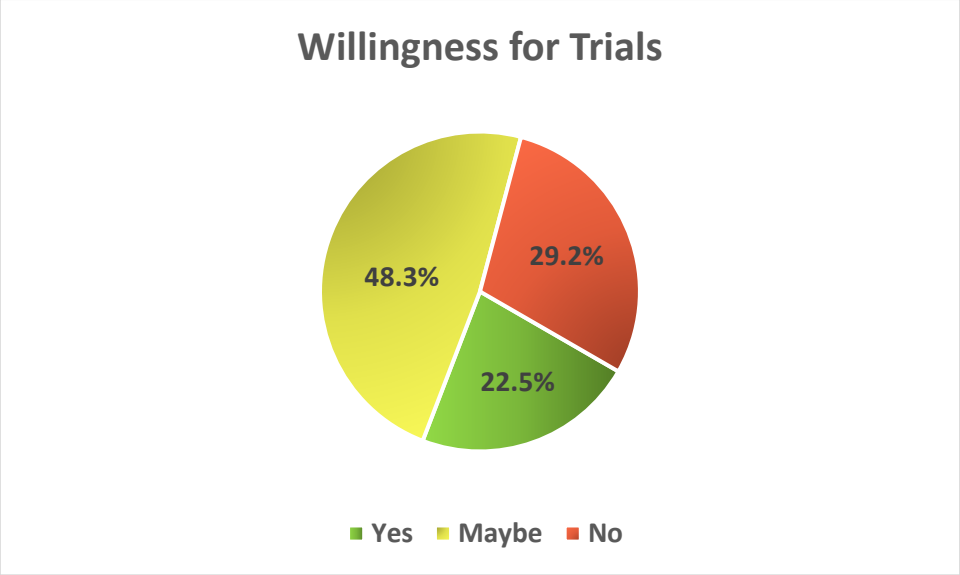

Fig 4.10: Willingness to participate in clinical trials among young adults (N=120)

27 respondents (22.5%) expressed definite willingness to participate, while 58 respondents (48.3%) indicated they "maybe" would participate, representing a substantial pool of potential participants. 35 respondents (29.2%) were unwilling to participate.

The high proportion of "maybe" responses suggests that participation decisions are conditional and could be influenced by various factors, including trial design, communication strategies, and trust-building measures.

4.5.2 Cross-Cultural Participation Patterns

City-specific analysis revealed interesting patterns in participation willingness as shown in figure 4.11. Mumbai participants showed slightly higher definite willingness (15 participants, 25%) compared to Dublin participants (12 participants, 20%). However, Dublin participants showed higher unwillingness (19 participants, 31.6%) compared to Mumbai participants (16 participants, 26.6%). The "maybe" category remained relatively consistent across both cities.

Response	Mumbai Healthcare	Mumbai non-healthcare	Dublin Healthcare	Dublin non-Healthcare
Yes	11	4	10	2
Maybe	15	14	14	15
No	4	12	6	13

Table 3: Willingness to participate in clinical trials by sub-groups

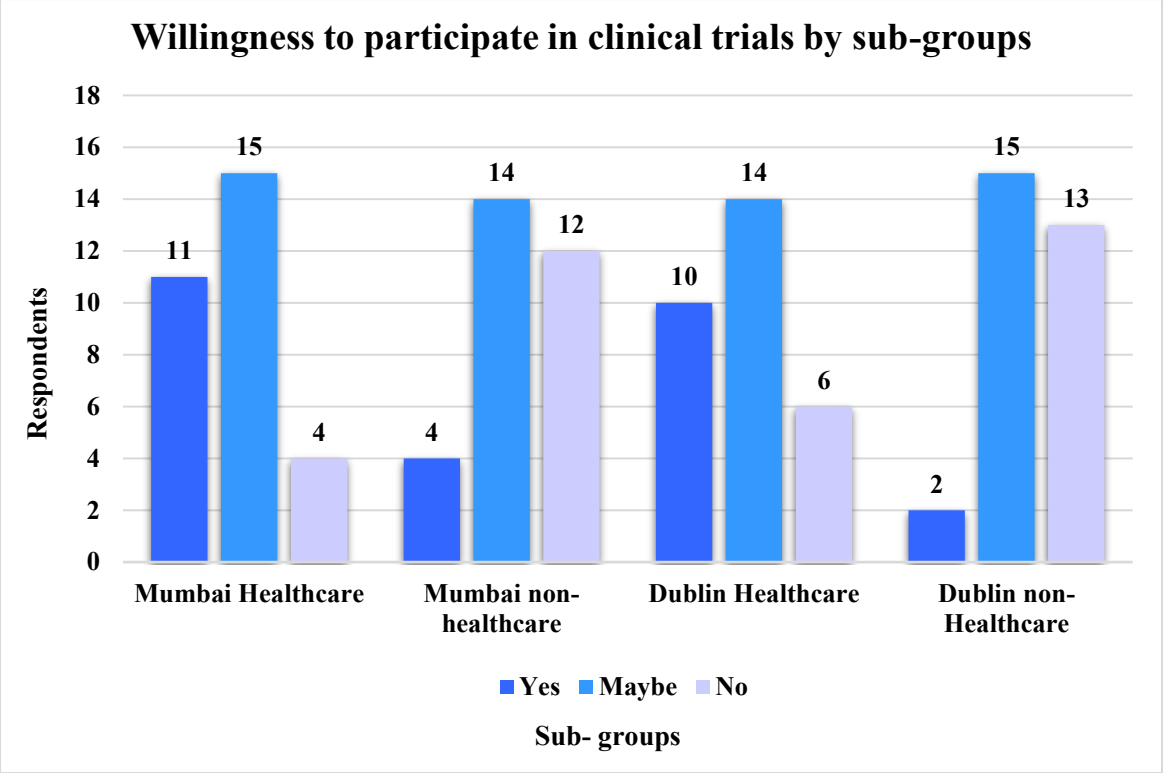

Fig 4.11 Willingness to participate in clinical trials by sub-groups

These differences may reflect varying cultural attitudes toward medical research participation, regulatory trust levels, or risk perception patterns between the two countries.

4.5.3 Safety Perceptions

Safety beliefs showed moderate confidence levels among participants. 47 respondents (39.2%) believed clinical trials are safe for healthy volunteers, while 62 respondents (51.7%) were uncertain ("maybe"), and 11 respondents (9.2%) considered them unsafe. The high uncertainty level indicates the need for better safety communication and transparency in trial information.

4.5.4 Trust in Ethical Conduct

Trust in ethical conduct of clinical trials showed moderate to positive levels. The mean trust score was 3.52 (SD=1.00) on a 5-point scale. 59 respondents (49.2%) expressed trust (scales 4-5), while 48 respondents (40%) remained neutral, and 13 respondents (10.8%) expressed distrust (scales 1-2).

Cross-cultural comparison showed Mumbai participants expressing slightly higher trust levels, with 31 participants (51.7%) showing high trust compared to 28 Dublin participants (46.7%). This finding contradicts expectations based on historical concerns about clinical trial conduct in India (Mendiratta et al., 2023), suggesting improved perceptions among urban young adults.

4.5.5 Healthcare System Trust

Overall healthcare system trust showed positive attitudes, with 77 respondents (64.2%) agreeing or strongly agreeing with trusting their country's healthcare system. Neutral

responses accounted for 33 participants (27.5%), while only 10 participants (8.3%) expressed disagreement. These generally positive trust levels provide a foundation for clinical trial participation, though neutral responses indicate room for improvement.

4.5.6 Family Influence

Family influence on participation decisions showed significant impact across both cultures. 64 respondents (53.3%) reported family opinions as "somewhat" influential, while 29 respondents (24.2%) considered family influence "very much" important. Only 27 respondents (22.5%) indicated family opinions were "not at all" influential.

This finding supports Madsen et al.'s (2002) observations about cultural differences, though it suggests that even in individualistic cultures like Ireland, family opinions retain importance for clinical trial participation decisions among young adults.

4.6 Barriers and Concerns (Objective 4)

4.6.1 Primary Concerns

The analysis of barriers revealed clear patterns in participant concerns, as illustrated in Figure 4.12.

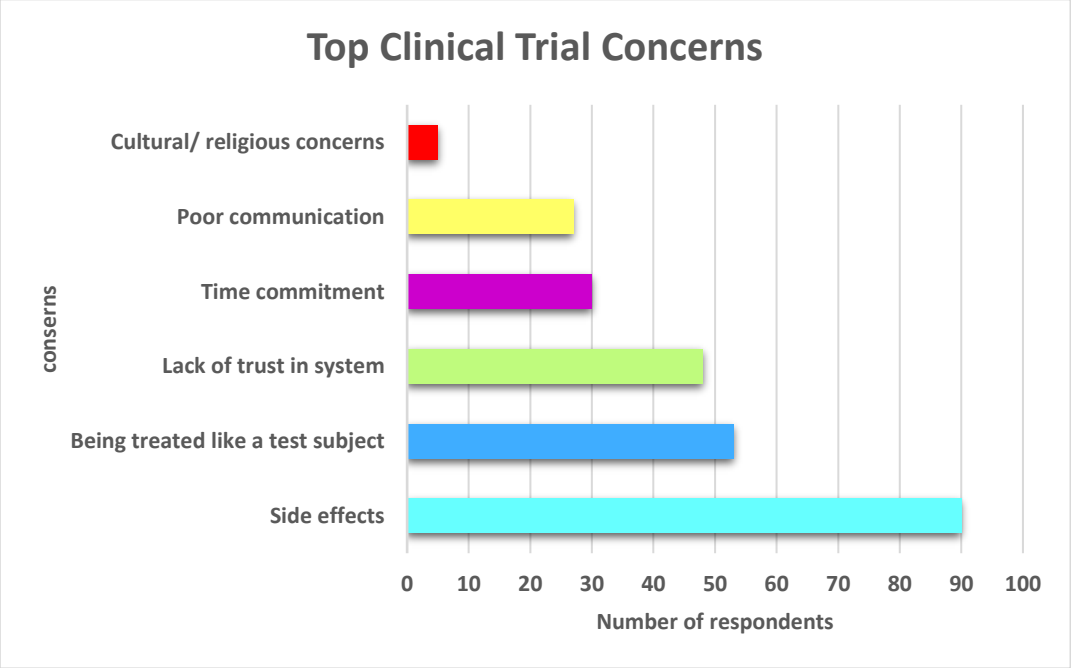

Fig 4.12 Main barriers & concerns about clinical trial participation among young adults

Side effects emerged as the overwhelming primary concern, mentioned by 90 respondents (75%). This finding aligns with King et al.'s (2025) identification of side effect fears as a major barrier across different cultural contexts.

The second most significant concern was "being treated like a test subject," mentioned by 53 respondents (44.2%). This concern reflects dignity and autonomy issues that are fundamental to ethical research participation and suggests the need for better participant-centered communication approaches.

"Lack of trust in the system" ranked as the third major concern, mentioned by 48 respondents (40%). This systemic trust issue requires institutional-level interventions to build confidence in clinical research infrastructure and oversight mechanisms.

4.6.2 Secondary Concerns

Time commitment concerns were mentioned by 30 respondents (25%), while poor communication was cited by 27 respondents (22.5%). These operational concerns suggest opportunities for improvement in trial design and participant engagement strategies.

Cultural and religious concerns showed minimal impact, mentioned by only 5 respondents (4.2%). This low frequency suggests that cultural barriers may be less significant among urban young adults than previously assumed, though this finding may reflect the educated, urban nature of the sample.

4.6 Recommendations for Improvement (Objective 5)

4.6.1 Thematic Analysis of Suggestions

Analysis of the 84 meaningful suggestions provided by participants revealed five primary themes for improving youth engagement in clinical trials:

Awareness and Education (21 suggestions, 25%): Participants emphasized the need for increased awareness campaigns, educational programs in universities, and clearer information dissemination. Representative suggestions included comprehensive educational campaigns targeting young adults and using age-appropriate communication strategies.

Trust and Transparency (15 suggestions, 17.9%): Participants called for greater transparency in trial processes, clearer risk-benefit communication, and enhanced safety assurances. This theme reflects the need to address the "lack of trust in the system" concern identified in the barriers analysis.

Communication Improvement (8 suggestions, 9.5%): Participants requested simplified language, avoidance of medical jargon, and better explanation of trial procedures. This addresses the "poor communication" barrier while acknowledging varying educational backgrounds among potential participants.

Incentive Mechanisms (4 suggestions, 4.8%): Some participants suggested offering incentives such as certificates, stipends, or other recognition for participation. However, the low frequency of this theme suggests that financial incentives may not be the primary motivator for this demographic.

Digital Platform Utilization (3 suggestions, 3.6%): Participants recommended better use of social media and digital platforms for recruitment and education, despite the low trust in social media advertisements observed in the quantitative analysis.

4.6.2 Cross-Cultural Consistency

The thematic patterns showed remarkable consistency across Mumbai and Dublin participants, suggesting that fundamental concerns and improvement suggestions transcend cultural boundaries among urban young adults. This consistency supports the development of standardized improvement strategies while allowing for local customization.

4.7 Discussion of Key Findings

4.7.1 Awareness-Action Gap

The findings reveal a significant awareness-action gap among young adults. While 83.3% had heard of clinical trials, only 22.5% expressed definite willingness to participate. This gap suggests that awareness alone is insufficient for encouraging participation and that other factors, particularly trust and safety concerns, play crucial roles in decision-making.

4.7.2 Healthcare Education Impact

The study demonstrates the profound impact of healthcare education on clinical trial perceptions. Healthcare participants showed consistently higher familiarity, understanding, trust, and participation willingness across all measures. This finding suggests that healthcare education exposure significantly influences clinical trial attitudes and could inform educational intervention strategies.

4.7.3 Social Media Paradox

An interesting paradox emerged regarding social media's role. While 54.2% had seen clinical trial content on social media and 30.8% reported positive influence from such content, only 9.2% trusted social media recruitment advertisements. This suggests that social media may be effective for education and awareness but requires different approaches for recruitment purposes.

4.7.4 Cultural Similarities

Contrary to expectations based on previous research suggesting significant cultural differences in clinical trial attitudes, the study revealed remarkable similarities between Mumbai and Dublin participants across most measures. This finding may reflect the urban, educated nature of the sample or suggest that globalization and shared digital experiences are reducing traditional cultural barriers among young adults.

4.7.5 Trust as a Central Factor

Trust emerged as a central theme throughout the analysis, influencing awareness translation into participation willingness, social media effectiveness, and barrier perception. The moderate trust levels observed (mean 3.52/5 for ethical conduct trust) suggest significant opportunities for improvement through transparency, communication, and relationship-building initiatives.

4.8 Limitations of Findings

4.8.1 Sample Limitations

The study's focus on urban, educated young adults may limit generalizability to broader populations. The high proportion of healthcare participants (50%) may also influence overall findings, though this allows for valuable comparison between healthcare and non-healthcare perspectives.

4.8.2 Self-Selection Bias

The online recruitment method may have introduced self-selection bias, potentially attracting participants with greater interest in healthcare topics or higher digital literacy levels.

4.8.3 Social Desirability

Some responses, particularly regarding ethical conduct trust and participation willingness, may reflect social desirability bias rather than true attitudes, though the anonymous nature of the survey aimed to minimize this effect.

4.9 Qualitative Analysis of Open-Ended Survey Responses

It presents the thematic analysis of qualitative data collected through open-ended survey responses from 10 participants who provided detailed insights into their perspectives on clinical trials. The responses were analysed using Braun and Clarke's (2006) six-step thematic analysis framework to identify patterns and themes across the dataset.

4.9.1 Participant Demographics for Qualitative Analysis

The qualitative sample comprised 10 respondents from both Mumbai and Dublin, representing a mix of healthcare professionals, past clinical trial participants, and general public members. The participants included:

- **Healthcare professionals/students:** 6 participants (3from Mumbai, 3 from Dublin)
- **Past clinical trial participants:** 2 participants (1 from Mumbai, 1 from Dublin)
- **Non-healthcare/general public:** 2 participants (1 from Mumbai, 1 from Dublin)

4.9.2 Thematic Analysis Results

The analysis revealed five main themes that capture the cross-cultural perceptions of clinical trials among young adults:

Theme 1: Knowledge and Understanding Disparities

The responses revealed significant variations in clinical trial knowledge levels. Healthcare professionals demonstrated sophisticated understanding, with one Mumbai participant noting:

"Clinical trials are research studies conducted to evaluate the safety and effectiveness of medical treatments, interventions, or drugs in humans. They follow strict protocols and are essential for regulatory approval and advancing medical knowledge." [Participant 3, Mumbai, Healthcare]

In contrast, non-healthcare participants showed more basic understanding:

"Not much, except for the fact that it is done in the pre testing phase of any medicines being launched for people to use." [Participant 10, Mumbai, Non-healthcare]

This disparity highlights the importance of targeted educational interventions for different audience segments.

Theme 2: Trust and Safety Concerns as Primary Barriers

Safety concerns emerged as the dominant barrier across both cities and all participant categories. Multiple participants expressed similar concerns:

"My main concerns would be potential side effects, lack of guaranteed results, and the overall safety of the treatment being tested." [Participant 3, Mumbai, Healthcare]

"The main concern would be about the side effects this would possess." [Participant 10, Mumbai, Non-healthcare]

Trust in the healthcare system and research processes was highlighted as crucial for participation decisions.

Theme 3: Social Media's Dual Role in Shaping Perceptions

Participants consistently identified social media as having both positive and negative influences on clinical trial perceptions. The dual nature was captured by several responses:

"Social media and technology play a significant role by providing easy access to information, personal stories, and expert opinions. However, they can also spread misinformation, so it's important to verify sources before making decisions." [Participant 3, Mumbai, Healthcare]

"Because of social media I got to know about the misconduct of medical trials. And how it is hazardous if it's not safe." [Participant 5, Dublin, Non-healthcare]

This theme suggests the need for proactive engagement with digital platforms to counter misinformation.

Theme 4: Cultural and Community Influences on Decision-Making

Community perceptions varied significantly between cities and cultural contexts. Mumbai participants often mentioned mixed community attitudes:

"In my community, perceptions about clinical trials are mixed. Some people see them as important for medical progress and are open to participating, especially if there are health benefits or compensation. However, many are cautious or skeptical due to a lack of awareness, fear of side effects, and mistrust in the healthcare system." [Participant 8, Mumbai, Healthcare]

Dublin participants suggested different community dynamics:

"They do not usually consider participation unless a family member has an associated link." [Participant 2, Dublin, Healthcare]

Theme 5: Need for Transparent Communication and Education

Across all participants, there was a strong emphasis on the need for better communication and education strategies. Healthcare professionals particularly highlighted recruitment challenges:

"Recruiting young adults is challenging due to several barriers. Many lack awareness about clinical trials and fear side effects or being treated like test subjects. Busy schedules, especially for students or working professionals, make participation difficult. In some cases, family or peer opinions influence their decision. There are also lingering misconceptions and stigma around clinical trials, particularly in lower-income communities." [Participant 8, Mumbai, Healthcare]

Solutions suggested included:

"Clear communication and relatable language are essential, especially through digital platforms like Instagram, YouTube, and WhatsApp. Sharing real stories and educational content helps build trust. Peer influence plays a key role, with past participants or influencers advocating for the trials. Offering incentives like flexible participation options and compensation also appeals to this age group. Transparency about safety protocols and ethical practices addresses concerns, making the process more approachable and encouraging informed participation." [Participant 8, Mumbai, Healthcare]

4.9.3 Cross-Cultural Patterns

The qualitative analysis revealed both similarities and differences between Mumbai and Dublin participants:

Similarities:

- Safety concerns as primary barriers
- Recognition of social media's influential role
- Need for better education and transparency
- Respect for healthcare professional guidance

Differences:

- Mumbai participants showed more skepticism due to historical concerns about research misconduct
- Dublin participants demonstrated higher baseline trust in regulatory systems
- Community influence patterns varied, with Mumbai showing more collective decision-making influences

4.9.4 Integration of Quantitative and Qualitative Findings

The qualitative findings strongly support and explain the quantitative results presented earlier in this chapter. The high awareness levels (83.3%) reported in the survey are confirmed by participants' ability to articulate basic clinical trial concepts. However, the qualitative data reveals the depth of concerns underlying the conditional willingness to participate (70.8% expressing "yes" or "maybe" willingness).

The qualitative analysis particularly illuminates the mechanisms behind the quantitative finding that 54.2% had seen clinical trial content on social media but only 9.2% trusted social media recruitment advertisements. The theme of social media's dual role explains this apparent paradox – while participants acknowledge social media as an information source, they remain skeptical of its commercial applications.

4.10 Summary of Mixed Methods Findings

The integration of quantitative and qualitative findings provides a comprehensive understanding of young adults' perceptions of clinical trials in Mumbai and Dublin:

1. **High awareness but conditional willingness:** While 83.3% had heard of clinical trials, only 22.5% expressed definite willingness to participate, with safety concerns being the primary barrier identified in both datasets.
2. **Healthcare education as a key differentiator:** Both quantitative analysis and qualitative themes confirm that healthcare background significantly influences all measured variables, from awareness to willingness to trust levels.
3. **Social media's complex role:** The mixed methods approach reveals social media as both an opportunity and a challenge for clinical trial recruitment among young adults.
4. **Cross-cultural similarities:** Despite initial expectations of significant cultural differences, both datasets show remarkable similarities in concerns, barriers, and motivations between Mumbai and Dublin participants.
5. **Trust as a central construct:** Both quantitative measures and qualitative themes identify trust as the critical factor influencing participation decisions across all variables studied.

4.11 Conclusion

This chapter presented comprehensive findings from the primary research conducted among 120 young adults via quantitative survey & 10 young adults via Open-ended qualitative surveys in Mumbai and Dublin. The analysis revealed high general awareness of clinical trials (83.3%) but moderate detailed understanding (mean 3.30/5). Social media showed significant reach (54.2% exposure) but low trust for recruitment purposes (mean 2.29/5). Participation willingness was cautiously positive, with 70.8% expressing willingness or potential willingness. Healthcare education emerged as a crucial factor influencing all measured variables. The findings provide a solid foundation for developing targeted interventions to improve young adult engagement in clinical trials while highlighting the importance of trust-building and culturally sensitive approaches. Overall, both Mumbai and Dublin participants show similar concerns and motivations, with trust emerging as the central factor influencing decisions about clinical trial participation. These insights provide a comprehensive understanding of young adults' perceptions by combining detailed qualitative themes with quantitative survey data.

CHAPTER 5
CONCLUSION

5.1 Overview

This final chapter discusses the key findings from this mixed-methods comparative study examining cross-cultural perceptions of clinical trials among young adults aged 20-35 in Mumbai and Dublin. The chapter synthesizes the quantitative and qualitative results, acknowledges study limitations, and proposes recommendations for future research.

5.2 Discussion of Key Findings

5.2.1 High Awareness but Limited Deep Understanding

The study revealed that 83.3% of participants had heard of clinical trials, indicating successful general awareness efforts in both cities. However, the moderate familiarity (mean 3.02/5) and understanding scores (mean 3.30/5) suggest a significant awareness-action gap. This finding aligns with Kumar et al.'s (2019) observations about the limited depth of knowledge in urban populations, while contradicting their broader claims about low awareness in LMICs.

The qualitative analysis further illuminated this gap, showing that while healthcare participants could articulate sophisticated definitions of clinical trials, non-healthcare participants often held a superficial understanding. This disparity suggests that awareness campaigns have successfully reached young urban adults but may lack the depth needed to facilitate informed decision-making.

5.2.2 Cross-Cultural Similarities Rather Than Differences

Contrary to initial expectations based on cultural frameworks from Madsen et al. (2002) and historical concerns about clinical trials in India (Mendiratta et al., 2023), the study found remarkable similarities between Mumbai and Dublin participants across most measured variables. Both cities showed:

- Similar general awareness levels (83.3% each)
- Comparable trust in ethical conduct (Mumbai 51.7% high trust vs Dublin 46.7%)
- Similar primary concerns (side effects: 75% overall)
- Parallel social media exposure patterns (Mumbai 53.3% vs Dublin 55.0%)

These similarities may reflect the globalization of healthcare information, shared digital experiences among young adults, or the urban, educated nature of the sample. The qualitative analysis supported this finding, with participants from both cities expressing similar fundamental concerns about safety, transparency, and communication.

5.2.3 The Healthcare Education Effect

One of the most significant findings was the profound impact of healthcare education on all measured variables. Healthcare participants demonstrated:

- Higher familiarity (56.7% vs 8.3% high familiarity)
- Greater participation willingness (28.3% vs 16.7% definite willingness)
- Enhanced trust levels (61.7% vs 36.7% high trust)

- Lower refusal rates (18.3% vs 40%)

This finding extends beyond previous research by quantifying the magnitude of healthcare education's influence and suggests that healthcare literacy may be more important than cultural background in shaping clinical trial attitudes among young adults.

5.2.4 Social Media's Paradoxical Role

The study uncovered a fascinating paradox regarding social media's influence. While 54.2% had seen clinical trial content on social media and 30.8% reported positive influence from such content, only 9.2% trusted social media recruitment advertisements. The qualitative analysis provided crucial context, revealing social media's dual role as both an information source and a potential vector for misinformation.

This finding has important implications for clinical trial recruitment strategies. While social media platforms offer reach and engagement opportunities, they require careful attention to credibility and trust-building measures that go beyond traditional advertising approaches.

5.2.5 Trust as the Central Construct

Trust emerged as the overarching theme connecting all other findings. The moderate trust levels observed (mean 3.52/5 for ethical conduct) suggest significant opportunities for improvement. The qualitative analysis revealed trust operating at multiple levels:

- **Institutional trust:** In regulatory systems and healthcare institutions
- **Interpersonal trust:** In healthcare providers and research teams
- **Process trust:** In research procedures and safety measures
- **Information trust:** In communication sources and channels

This multi-dimensional nature of trust suggests that improvement strategies must address multiple levels simultaneously rather than focusing on any single aspect.

5.3 Implications for Practice and Policy

The findings of this study highlight several important implications for practice and policy. First, when it comes to educational interventions, it is clear that the approach should vary depending on the background of the audience rather than focusing only on cultural differences. For people with a healthcare background, the emphasis should be on explaining specific trial processes, ethical issues, and the benefits of participation. For those without healthcare knowledge, the focus should be on providing basic information about what clinical research is, how safety is ensured, and the role of regulatory bodies. At the same time, for all groups, it is necessary to address common worries such as possible side effects and to make sure participant rights are clearly explained.

Another important point is the use of digital engagement strategies. The study suggests that social media should be used more for spreading awareness and education rather than directly recruiting participants. This can be done effectively by collaborating with trusted healthcare professionals, influencers, and institutions. In addition, fact-checking tools and methods to tackle misinformation should be applied. Sharing real peer experiences and informative educational content may also work better than using traditional advertising methods.

The role of trust-building is also central to successful recruitment. To gain trust, communication should be transparent about the possible risks, benefits, and trial procedures. It is equally important to share information about how regulatory bodies ensure oversight and safety. Allowing participants opportunities to interact directly with research teams can also strengthen trust. Furthermore, reminding participants of their rights and withdrawal options can ensure they feel safe and respected throughout the process.

Finally, the study offers useful insights into cross-cultural recruitment approaches. The similarities found between cities indicate that recruitment strategies may not need to differ as much across cultural contexts as was previously thought, especially among young, educated people living in urban areas. This suggests that certain recruitment methods may be applied more widely and even inform global strategies for multinational clinical trials.

5.4 Limitations of the Study

This study also has some important limitations that need to be considered. One set of limitations comes from the sample itself. Because the research focused mostly on people from big cities, there is an urban bias, which means the findings may not reflect the views of those living in rural or suburban areas. Similarly, since a large number of participants were highly educated, there is an education bias, and the results may not represent the attitudes of those with different educational backgrounds. The use of online recruitment also brought in a self-selection bias, as it may have attracted people already more interested in healthcare topics. In addition, the study was limited to participants aged 20–35, so it does not capture how people from other age groups may think differently about medical research.

There were also some methodological limitations. Since the study used a cross-sectional design, it can only give a snapshot at one moment in time and cannot show causal relationships or how attitudes might change over a longer period. The data was mostly self-reported, which means responses could have been influenced by social desirability bias or inaccurate memory. Another issue was the small qualitative sample, as only 10 participants provided detailed responses, which restricted the depth of the thematic analysis. Finally, because the surveys were conducted only in English, people who were not comfortable with the language might have been excluded.

The study also had certain cultural context limitations. For example, it might not fully capture within-country variations, since both India and Ireland have diverse cultures that were not completely represented. There were also temporal factors to consider, as attitudes toward clinical trials could be affected by recent events or media coverage that were not included in this study. Lastly, the research did not deeply explore how socioeconomic status influences people's perspectives within different cultural settings, which is another important factor that could have added more nuance to the findings.

5.5 Recommendations for Future Research

Based on the limitations and findings, there are several recommendations for future research. To begin with, it would be important to conduct longitudinal studies that follow participants over a longer period of time. This would help track how attitudes toward clinical trials change with age and experience, assess the effects of specific awareness or educational interventions, and evaluate whether the cross-cultural similarities found in this study remain consistent over

time. Such studies would provide deeper insights into how life experiences shape people's willingness to take part in medical research.

Future work should also broaden the geographic and demographic scope. Instead of focusing only on young, urban, and highly educated groups, research should include participants from rural and suburban areas in both India and Ireland, as well as people of different age categories. Including lower-education populations would also help in understanding whether education levels affect knowledge and attitudes. Furthermore, studies should go beyond these two countries to explore other cultural contexts and test whether the findings can be applied more generally.

In addition, intervention studies are needed to explore what actually works best in improving awareness and recruitment. Such experimental research could compare different types of educational programs, test the usefulness of social media engagement strategies, and examine how trust-building methods influence participation. It would also be valuable to see how recruitment materials can be adapted across cultural contexts to make them more effective and inclusive.

Finally, there is a strong need for deeper qualitative exploration. Larger sets of in-depth interviews could help capture richer insights into people's thought processes. Future studies should also look at how family, community, and religious or cultural beliefs influence decisions about trial participation. Exploring these aspects more closely would allow researchers to better understand the complex decision-making process behind agreeing or refusing to take part in clinical trials.

5.6 Practical Recommendations

This study highlights several practical steps for different stakeholders. For clinical research organizations, it is important to prepare audience-specific educational materials, promote digital literacy among young adults, and use peer ambassador programs led by healthcare-trained youth. They should also adopt multi-level trust-building strategies. Regulatory authorities can strengthen trial participation by creating standardized educational resources, ensuring transparency about regulations, supporting research on recruitment of diverse groups, and setting guidelines for social media use. Healthcare educators should integrate clinical trial literacy into curricula, provide continuing education on research communication, and engage the public by positioning healthcare professionals as trusted messengers. They should also test better teaching methods for this topic. Finally, pharmaceutical companies can build long-term relationships with young communities, design inclusive recruitment materials, collaborate with universities, and support independent studies on young adult attitudes.

5.7 Contributions to Knowledge

The study also offers important contributions. Theoretically, it challenges the idea that culture is the main driver of trial participation and shows healthcare education and trust as central factors. Methodologically, it demonstrates the value of mixed methods, validates cross-cultural research models, and develops useful survey tools. On a practical level, it provides evidence-based guidance for improving recruitment, shaping policies, and supporting education. Together, these contributions build a stronger understanding of how young adults view clinical trials and how participation can be encouraged effectively.

5.8 Final Conclusions

This dissertation explored young adults' awareness, attitudes, and willingness to participate in clinical trials in Mumbai and Dublin. The research aimed to compare these cross-cultural perceptions and identify common barriers and enablers. A mixed-methods approach (online surveys and open-ended responses) was used to gather both quantitative data and qualitative insights. In total, 120 participants (60 per city, balanced by healthcare background) completed surveys, and 10 of them provided in-depth written interviews. Statistical analysis (for survey data) and thematic analysis (for open responses) were combined to yield a holistic picture of how young urban adults understand and feel about clinical trials.

The literature review showed that awareness of clinical trials among young adults is often low in low- and middle-income countries such as India (Kumar et al., 2019; Figer et al., 2020), while higher but still cautious in Europe (Murphy & O'Sullivan, 2022). My findings partly agree and partly challenge these claims. In both Mumbai and Dublin, awareness was actually very high (83.3%), suggesting that urban young adults are more exposed to health information than the broader populations described in earlier studies. However, consistent with the literature, detailed understanding was limited: many participants knew of trials but lacked clear knowledge of processes, safety measures, and rights.

The role of trust and safety concerns was strongly confirmed. Previous studies (King et al., 2025; Schwartz et al., 2023) emphasized mistrust, fear of side effects, and ethical worries as key barriers. Similarly, in this study, side effects (75% of respondents) and being "treated like a test subject" were major concerns across both cities. This shows that while general awareness is increasing, the same old barriers of trust and safety remain central.

The impact of cultural values discussed in the literature was expected to create clear contrasts: collectivist values in India (where family decisions are emphasized) versus more individualistic attitudes in Ireland (Madsen et al., 2002). While my data confirmed that family influence was important in Mumbai, I was surprised to find that Dublin respondents also reported family opinions as influential. This suggests that for young adults, family and peer input may remain relevant even in "individualistic" societies, which partly contradicts the older literature.

Regarding social media, the literature (Schwartz et al., 2023) warned about misinformation. My findings confirm this but add nuance: 54.2% of participants in both cities had seen clinical trial content online, yet only 9.2% trusted advertisements. Qualitative responses showed that while social media raised curiosity and gave easy access to information, misinformation and distrust of ads reduced its effectiveness for recruitment. This reflects the dual role mentioned in previous research and shows the growing importance of digital health literacy.

When comparing the two cities, results were more similar than expected. Awareness levels were nearly identical (83.3% in both cities). Trust in ethical conduct was also close (Mumbai 51.7% high trust vs. Dublin 46.7%). Safety concerns dominated in both contexts, showing that young people, regardless of culture, share similar worries about side effects.

There were some small but meaningful differences. Mumbai respondents showed slightly higher definite willingness to participate (25%) compared to Dublin (20%), while Dublin participants reported higher outright refusal (31.6% vs. 26.6%). This suggests that although mistrust is present in both places, young adults in Dublin may be more cautious about direct involvement. At the same time, Mumbai participants often emphasized community perceptions and historical concerns about unethical practices, while Dublin participants relied more on regulatory trust.

Another strong difference was in the influence of healthcare education. In both cities, those with a healthcare background showed greater understanding and willingness, but the contrast was especially clear in Dublin, where non-healthcare respondents clustered at lower levels of familiarity. This reinforces that education, more than culture, was the key dividing line in perceptions of clinical trials.

As a student, this research taught me that numbers and awareness percentages only tell part of the story; understanding people's trust, fears, and decision-making processes is just as important. Comparing my findings with the literature showed me how knowledge evolves: older research emphasized cultural differences, but my study suggests that in today's connected world, education and trust matter more than geography. This insight will be valuable in the pharmaceutical industry, where patient engagement and ethical recruitment are central to success.

CHAPTER 6
REFFERENCES

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APPENDIX

Ethics Application & Declaration Form

DISSERTATION TITLE: "Cross-Cultural Perceptions of Clinical Trials Among Young Adults (20-35) in Mumbai and Dublin: A Comparative Study of Awareness and Participation Willingness."

RESEARCHER'S NAME: Ketki Rajaram Vishe

PROGRAMME OF STUDY: MSc in Pharmaceutical Business & Technology

SUPERVISOR'S NAME: Elizabeth Russell

DECLARATION:

The information in this application form is accurate to the best of my knowledge. I undertake to abide by the principles outlined by Innopharma/Griffith College ethics policy in my research dissertation. I confirm that I have completed a full ethics assessment for my research dissertation as per the college guidelines. I will not begin my primary research until such approval from my supervisor and/or ethics Committee has been obtained.

I pledge to carry out my research according to the Innopharma/Griffith College academic integrity standards. Any results presented in my dissertation will be from my own, original research, I will reference and/or acknowledge any material or sources used in its preparation and I will not plagiarise the work of anyone else.

For Student:
STUDENT SIGNATURE:

DATE: 05/07/2025
The research contained within this research dissertation proposal has been approved.

For Supervisor:
Ethics Committee Approval Required: Yes [ ] No [X]

SUPERVISOR SIGNATUR

DATE: 05/07/2025

For Ethics Committee (if required):
Ethics Committee Approval Given: Yes [ ] No [X]

ETHICS COMMITTEE MEMBER SIGNATURE:

DATE:

NOTE: Supervisors are responsible for ensuring their students fill in this form correctly and that all ethical areas have been considered.

SECTION 1: DESCRIPTION OF RESEARCH STUDY

1.1 Purpose and objectives of research

Purpose: This research aims to explore and compare the perspectives, attitudes, and awareness of young adults (aged 20-35) regarding clinical trials in Mumbai and Dublin, identifying key motivators, barriers, and cultural influences that shape their willingness to participate. To find a solution or to motivate young adults to improve participation rates in clinical trials.

Objectives:

1. Address the nature of participation and investigate the current level of awareness and knowledge about clinical trials among young adults in Mumbai and Dublin.
    - Investigate how much young adults know about clinical trials, their purpose, and their importance in medical research.
2. The impact of social media misinformation on clinical trials recruitment in Mumbai & Dublin.
    - Role of digital health technology in recruiting young adults for clinical trials
    - If possible, clinical trial recruitment and participants' interviews.
3. Public perception & willingness to participate in the pharmaceutical market & research in Mumbai & Dublin.
    - Investigate how cultural beliefs, family influence, education, and socioeconomic status shape perspectives
4. To examine the barriers and concerns that deter young adults from participating in clinical trials.
    - Analyze issues such as fear of side effects, lack of trust in healthcare systems, ethical concerns, and logistical challenges.
5. To provide recommendations for improving youth engagement in clinical trials in both cities.
    - Strategies for increasing awareness, addressing concerns, and fostering trust among young adults.

1.2 Research methodology:

A mixed-methods strategy will be used, which includes quantitative and qualitative elements. A cross-sectional online survey (quantitative) will capture broad measures of awareness, willingness, social media impact, and perceptions. For this study, I will include a total of 120 participants for the survey and 10 participants for interviews via an Open-ended survey, all aged between 20 and 35 years old, from Mumbai (India) and Dublin (Ireland). This age group is chosen because young adults are often involved in early-phase clinical trials and are more likely to use digital media, which can influence their awareness and opinions.

In each city, I will include:

- 30 participants from healthcare backgrounds (e.g., medical students, doctors, nurses, clinical researchers)
- 30 participants from non-healthcare backgrounds (e.g., students or professionals in other fields)

For interviews, I will speak with 10 people total, including:

- 2–3 individuals who have taken part in a clinical trial
- 3 individuals with healthcare backgrounds

- 3 individuals with non-healthcare backgrounds

Target participants will be recruited through purposive and snowball sampling via professional networks, social media, and personal contacts.
The data collected using the above methods will be analysed. The findings will be summarized in a report with charts, tables, and narrative explanations using data visualization techniques.

SECTION 2: POSSIBLE ETHICAL ISSUES

Answer 'yes' or 'no' to the following questions.

SUBJECT MATTER

Does the research proposal involve:	
Research into specific company activities that would be deemed sensitive or confidential	No
Research into politically and/or racially/ethnically and/or commercially sensitive areas	No
Sensitive, personal, professional or corporate issues	No

RESEARCH PROCEDURES

Does the research proposal involve:	
Research that might damage the reputation of companies or participants	No
Research that may negatively affect the reputation of Griffith College/Innopharma	No
Use of personal records without consent	No
Use of company data without consent	No
The offer of any inducements to participate	No
Audio or visual recording without consent	No
Using a language other than English	No

PARTICIPANTS

Does the research proposal involve:	
People who are not competent and/or fluent in English	No
Does your research group include any of the following vulnerable groups	No

<u>If you have answered NO to ALL questions, please go straight to Section 4.</u>

<u>If you have answered YES to ANY question in SECTION 2, you must fill in SECTION 3.</u>

SECTION 3: STEPS TAKEN TO AVOID ETHICAL ISSUES

3.1. If your ethics relates to ***Subject Matter***, outline your action plan to work around any sensitive issues.
3.2. If your ethics relates to ***Research Procedures***, outline your action plan to deal with possible ethical issues in your research procedures.
3.3. If your ethics relates to ***Participants***, outline how you will protect vulnerable persons or those that do not have English as their first language.

SECTION 4: ABOUT YOUR PARTICIPANTS

4.1. Outline your participant profile and why you have chosen them for this study.

- **Healthcare professionals and students** are included because they may already know more about clinical trials. Their opinions help us understand how knowledge and training affect views on participation.

- **Non-healthcare individuals** are included to represent the general public, whose awareness and concerns may be very different. They show us how clinical trials are understood by everyday people.

- **Participants from Mumbai and Dublin** help us compare two different cultures and healthcare systems. This helps us learn how culture, trust, and access to information shape people's views.

This mix of participants gives a well-rounded picture of how young adults think and feel about clinical trials across two cities and professional backgrounds.

4.2 How do you plan to gain access to/contact/approach your participant(s).

To reach participants for both the **survey** and **interviews**, I will use a combination of **online platforms**, **university networks**, and **personal outreach**:

1. **Online Platforms**:
   I will share the survey link on popular social media platforms like Instagram, LinkedIn, Facebook, and WhatsApp, which are commonly used by young adults aged 20–35. These platforms allow wide and easy access to a diverse group of people from both Mumbai and Dublin.

2. **University and Professional Networks**:
   I will use student mailing lists, academic groups, and healthcare-related forums to reach healthcare students and professionals. I will also ask my classmates and professional contacts to help share the survey within their networks.

3. **Personal Contacts and Snowball Sampling**:
   For interviews, I will personally contact people from both healthcare and non-healthcare backgrounds who fit the age and location criteria. I will also use snowball sampling, where existing participants may recommend others who are suitable and willing to join.

SECTION 5: INFORMATION, CONSENT AND CONFIDENTIALITY

5.1 Participant Information Letter (PIL) for participants

Please confirm below that your information letter covers:

Description of the research topic and method	Yes
Details of what participation will involve	Yes
Rights to anonymity	Yes
Confidentiality	Yes
Rights to withdraw from the research	Yes
The contact details of the researcher and supervisor (if necessary)	Yes

5.2 Informed Consent Form (ICF) for participants

Please indicate below if your research requires a signed consent form by selecting the relevant option only:

Yes, my research study requires a signed consent & I have attached an ICF in the appendices of my application

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SECTION 6: STORAGE OF DATA

6.1. How will you store the research data, and for how long? How will you manage data protection issues?

All research data, including survey & interview responses and analysis files, will be stored securely in a password-protected electronic device. The primary storage location will be an electronic device (Laptop) with appropriate password protection. A backup copy will be stored in online cloud storage platforms (OneDrive) to prevent data loss. As per the university guidelines, all the research data will be retained for a period of up to two years after the qualification is awarded. This retention period is required by the data protection regulations to allow for potential further analysis or verification. After this period, the data will be securely and permanently deleted.

1. **Anonymization:** All identifiable information (e.g., names, contact details), if applicable, will be removed from the survey data and replaced with unique identifiers to ensure participant anonymity.
2. **Password Protection:** All electronic files containing research data will be password-protected using strong, unique passwords and will be accessed only by the researcher.
3. **Access to Data:** As part of the thesis submission, the raw, anonymized data will be submitted to the college submission platform (Moodle) for record-keeping and grading purposes.
4. **Data Encryption:** The storage devices (cloud storage or hard drive) will be password-encrypted to prevent unauthorized access to the data.

SECTION 7: NON-DISCLOSURE AGREEMENT & STUDENT CONSENT

7.1 **Non-Disclosure Agreement (NDA)**
Will the final dissertation contain any information pertaining to any source what would warrant the use of a Non-Disclosure Agreement (NDA) e.g. industry-based research?

No

7.2 **Student consent**
If a Non-Disclosure Agreement (NDA) is not required, does the Student consent to allow their completed dissertation to be held/published by Innopharma/Griffith College?

Yes

SECTION 8: RECORDING AND RETENTION OF DISSERTATION VIVA

8.1 **Viva Recording**
The Dissertation viva will be recorded. This recording may be used to facilitate assessment by Innopharma staff, a third reader if necessary and/or if requested by the external examiner for the Programme. The recording will be held in line with current GDPR guidelines and will not be made publicly available.

Yes

SECTION 9: DOCUMENT CHECKLIST
NOTE: Applicants must attach the following documents in electronic format to the appendix.

Which documents are added to the appendix? Please tick N/A if not applicable:

9.1 Participant Information Letter (PIL) for participant	Yes
9.2 Informed Consent Form (ICF) for participant	Yes
9.3 Questions/survey for interviewees/focus groups etc *(can be in draft form)*	Yes
9.4 Any other documents e.g. Non-Disclosure Agreement	N/A

I confirm that this application is complete and all required documents are included in the appendix.

For Student:
STUDENT SIGNATURE: 

DATE: 5/06/2025

Survey Draft

This study aims to explore and compare awareness, attitudes, and willingness toward clinical trial participation among young adults (20-35) in Mumbai and Dublin. With persistent gaps in public understanding and cultural barriers hindering medical research recruitment, this work is crucial to uncovering how sociocultural factors shape engagement and identifying solutions to improve participation. As a participant, your contribution involves completing a brief 5-10-minute survey about your clinical trial awareness, perceptions, and influences (e.g., social media, culture). All responses remain strictly confidential and will directly inform strategies to enhance youth engagement in clinical research across both healthcare communities.

Survey Questionnaire (Quantitative)
Target group: Young adults aged 20–35 in Mumbai and Dublin.

Section 1: Demographics

1. What is your age?

   ☐ 20–25
   ☐ 26–30
   ☐ 31–35

2. Gender:

   ☐ Male
   ☐ Female
   ☐ Prefer not to say

3. Current city of residence:

☐ Mumbai
☐ Dublin

4. Are you currently working or studying in a healthcare-related field?

☐ Yes
☐ No

Section 2: Awareness and Knowledge

5. Have you heard of clinical trials before?

☐ Yes
☐ No
☐ Not sure

6. On a scale of 1–5, how familiar are you with what a clinical trial involves?
(1 = Not at all familiar, 5 = Extremely familiar)

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

7. What is the purpose of clinical trials? *(Select one)*

☐ A. To test how well a medicine works and how safe it is in people
☐ B. To treat patients without using medication
☐ C. To replace hospital treatments with home remedies
☐ D. To avoid scientific testing in medicine
☐ E. I'm not sure
☐ F. Other (please specify): _____

8. How would you rate your understanding of clinical trials?

☐ Excellent
☐ Good
☐ Average
☐ Poor
☐ None

9. Clinical trials are essential to medical advancement.

(Likert scale)
☐ Strongly agree
☐ Agree
☐ Neutral
☐ Disagree
☐ Strongly disagree

Section 3: Media Influence & Digital Tech *(Objective 2a)*

10. Where did you first learn about clinical trials? *(Select all that apply)*

    ☐ social media
    ☐ Healthcare provider
    ☐ News outlets
    ☐ School/University
    ☐ Family/Friends
    ☐ Other: _____

11. Where do you primarily get your health information? *(Select all that apply)*

    ☐ social media (e.g., Instagram, YouTube, Twitter)
    ☐ Television or radio
    ☐ Doctors or healthcare professionals
    ☐ Family or friends
    ☐ Newspapers or magazines
    ☐ Websites or online articles (e.g., health blogs, news sites)
    ☐ School or university
    ☐ Other (please specify): _____

12. **Have you seen content about clinical trials on social media?**

    ☐ Yes
    ☐ No

13. **Have you ever seen misinformation about clinical trials on social media?**

    ☐ Yes
    ☐ No
    ☐ Not sure

14. **Would you trust a clinical trial recruitment ad on Instagram/Facebook?** *(Likert scale)*

    ☐ Strongly trust
    ☐ Somewhat trust
    ☐ Neutral
    ☐ Somewhat distrust
    ☐ Strongly distrust

15. **Did that content influence your opinion about clinical trials?**

    ☐ Positively
    ☐ Negatively
    ☐ No impact
    ☐ Not applicable

Section 4: Perceptions and Trust

16. Do you trust that clinical trials are conducted ethically in your country?

    ☐ Strongly trust
    ☐ Somewhat trust
    ☐ Neutral
    ☐ Somewhat distrust
    ☐ Strongly distrust

17. Would you consider participating in a clinical trial?

    ☐ Yes
    ☐ No
    ☐ Maybe

18. Do you believe clinical trials are safe for healthy volunteers?

    ☐ Yes
    ☐ No
    ☐ Not sure

19. I trust the healthcare system in my country. *(Likert scale)*

    ☐ Strongly agree
    ☐ Agree
    ☐ Neutral
    ☐ Disagree
    ☐ Strongly disagree

20. How influential is your family's opinion on your decision to participate in a trial?

    ☐ Not at all
    ☐ Somewhat
    ☐ Very much

Section 5: Willingness to Participate/ Recommendations *(Objective 5)*

21. What are your biggest concerns about clinical trials? *(Select up to 3)*

    ☐ Side effects
    ☐ Lack of trust in the system
    ☐ Time commitment
    ☐ Poor communication
    ☐ Being treated like a test subject
    ☐ Cultural/religious concerns

22. Any suggestions on how to make clinical trials more appealing to youth? *(Open-ended)*

Open-ended Google Survey

Target Groups:

- Recruiters or medical professionals
- Past clinical trial participants
- General young adults from Mumbai or Dublin

Core Questions for All:

1. What do you know about clinical trials?
2. Would you or have you ever considered joining one? Why or why not?
3. What are your main concerns about participating?
4. How do people in your community perceive clinical trials?
5. What role do social media and technology play in your perception or decision-making?

Additional for Recruiters / Experts:

6. What barriers do you face when recruiting young adults?
7. Have misinformation or digital platforms affected recruitment?
8. What strategies have worked best for engaging this age group?

Additional for Past Participants:

9. Can you share your experience of being in a clinical trial?
10. What would you tell other young people about participating?

Sample Size Calculations

For Surveys:

This study targets young adults (ages 20–35) in two urban centres: Mumbai and Dublin. The estimated population sizes for this age group are as follows:

- Mumbai: Approx. 5.8 million aged 20–35
- Dublin: Approx. 0.26 million aged 20–35

Given these population sizes, the sample size is calculated using Cochran's finite population correction formula:

$$n = \frac{(1.96)^2 \cdot 0.5 \cdot 0.5}{0.05^2} \cdot \frac{5{,}800{,}000}{5{,}800{,}000 + \left(\frac{(1.96)^2 \cdot 0.5 \cdot 0.5}{0.05^2} - 1\right)} \approx 384.6$$

Formula

$$n = \frac{Z^2 \cdot p(1-p)}{e^2} \cdot \frac{N}{N + \left(\frac{Z^2 \cdot p(1-p)}{e^2} - 1\right)}$$

n = required sample size
N = population size
Z = z-score corresponding to 95% confidence level (1.96)
p = estimated proportion of the population (assumed to be 0.5 for maximum variability)
e = margin of error (set to 0.05 or 5%)

Mumbai Example:
Ideal sample size for Mumbai = 385 respondents
(Same result for Dublin if we ignore the correction due to the smaller population.)

Although the combined population of 20–35-year-olds in Mumbai and Dublin exceeds several million, this study is exploratory in nature and focuses on a manageable sub-sample of 120 participants (60 per city).

To justify this sample size:

- Estimated population proportion (P) = 10%
  (Assumes 10% of young adults may have awareness or interest in clinical trials based on prior studies and pilot research.)

Using the formula:

$$n = \frac{(1.96)^2 \cdot 0.10(1 - 0.10)}{0.054^2} = \frac{0.345744}{0.002916} = 118.57 \implies n \approx 119$$

Although the ideal size for generalizability is 119, due to feasibility constraints (time, resources, and recruitment limitations), a **sample of 120** was selected and **equally stratified** across both cities and professional groups.

3.5.1 Feasibility Adjustment

While 385 respondents per city would provide a ±5% margin of error, this exceeds the practical and ethical scope of this study. Therefore, the adjusted feasible sample is:

- **60 participants** per city, divided equally into:
  - **30 with healthcare backgrounds**
  - **30 with non-healthcare backgrounds**

This results in a total of **120 participants**.

Adjusted Margin of Error:

Using the simplified margin of error formula:

$$\text{MoE} = Z \cdot \sqrt{\frac{p(1-p)}{n}} = 1.96 \cdot \sqrt{\frac{0.5 \cdot 0.5}{119}} = 1.96 \cdot \sqrt{\frac{0.25}{119}} = 1.96 \cdot \sqrt{0.0021017} = 1.96$$

$$\text{MoE} = 1.96 \cdot \sqrt{\frac{0.5 \cdot 0.5}{119}} \approx \pm 8.99\%$$

This level of precision is acceptable for exploratory, perception-based research that is not intended to produce generalizable statistical findings, but rather to explore differences and patterns in cross-cultural awareness and willingness related to clinical trial participation.

Summary Table:

Location	Healthcare (n=30)	Non-Healthcare (n=35)	Total
Mumbai	30	30	60
Dublin	30	30	60
Total	**60**	**60**	**120**

Table 1: Summary of size of sample participants

 Healthcare group: medical / nursing students, doctors, nurses, clinical-research personnel.
 Non-healthcare group**:** students or professionals in non-medical fields

Ethical Considerations

- Participant burden is minimized by limiting the sample to 70 per city.
- The survey poses low risk, and participation is voluntary, anonymous, and fully informed.
- The sample size provides sufficient data for subgroup comparisons while aligning with ethical standards for feasibility and proportionality.

Justification for Interview Sample Size and Composition

Given the exploratory nature of this study, which aims to understand cross-cultural perceptions of clinical trials among young adults in Mumbai and Dublin, a small but strategically diverse sample was selected for in-depth qualitative interviews. A total of 8–10 participants were chosen using purposeful sampling to ensure a range of perspectives relevant to clinical trial awareness and participation.

The sample includes:

- 2–3 individuals with direct experience participating in clinical trials, offering first-hand insights into motivations, expectations, and barriers;
- 3 individuals with a healthcare background (e.g., students, professionals, or researchers), who bring an informed viewpoint on clinical research processes, public trust, and ethical considerations;
- 3 individuals from non-healthcare backgrounds, representing the general population and their lay understanding or misconceptions about clinical trials.

This composition balances experiential, professional, and public perspectives, allowing for the identification of common themes and contrasts within a manageable dataset. Although the sample is modest, it aligns with qualitative research guidelines that emphasize thematic saturation over statistical generalizability. Studies such as Guest, Namey & Chen (2020) show that as few as 6–10 interviews can yield meaningful insights when participants are relatively homogeneous within each subgroup and when the research question is focused.

Participant Information Sheet

TITLE- "Cross-Cultural Perceptions of Clinical Trials Among Young Adults (20-35) in Mumbai and Dublin: A Comparative Study of Awareness and Participation Willingness."

I would like to invite you to take part in a research study. Before you decide, you need to understand why the research is being done and what it would involve for you. Please take the time to read the following information carefully. Ask questions if anything you read is not clear or if you would like more information. Take time to decide whether or not to take part.

WHO I AM AND WHAT THIS STUDY IS ABOUT

I am a Master's student from Griffith College Dublin, "I am doing this study to explore and compare the perspectives, attitudes, and awareness of young adults (aged 20-35) toward clinical trials in Mumbai and Dublin, identifying key motivators, barriers, and cultural influences shaping their willingness to participate. To find a solution to improve participation rates in clinical trials. The study has been related to the MSc in Pharmaceutical Business and Technology.

What qualification will result from this?

This study is part of my final research project for the Master of Science (MSc) in Pharmaceutical Business and Technology at Griffith College. The research will contribute to my academic qualification but will not result in any qualification or certificate for participants.

Participation is entirely voluntary and will help support meaningful academic research in the field of clinical trials and public health awareness.

WHAT WOULD TAKING PART INVOLVE?

Taking part will involve you filling out a survey. This survey is not time-consuming and will take about 5 to 10 minutes to fill out. You are requested to just select the option you find suitable for each question, as I have added multiple-choice answers without the need for further explaining your

choice, which can take time. The survey is to be filled out online and will be submitted online once you select the submit button. For the qualitative studies, the open-ended Google survey interview time will be short, about 10-15 minutes maximum.

WHY HAVE YOU BEEN INVITED TO TAKE PART?

You have been invited to take part in this study because you are a young adult aged between 20 and 35 years, currently living in either Mumbai (India) or Dublin (Ireland). This study is focused on understanding how people in this age group think, feel, and make decisions about clinical trials—especially across different professions and cultures.

Your views are important because they will help us learn:

- How many people know about clinical trials
- What encourages or discourages young people from joining clinical research
- How social media and culture affect your opinions

Whether you work in healthcare or not, your input can help researchers and healthcare providers better design and promote clinical trials that are ethical, accessible, and trustworthy.

DO YOU HAVE TO TAKE PART?

Participation is completely voluntary, and you have the right to refuse participation, refuse any question, and withdraw at any time without any consequence whatsoever. If you wish to withdraw, you can contact me through: visheketki16@gmail.com

WHAT ARE THE POSSIBLE RISKS AND BENEFITS OF TAKING PART?

There are no major risks in taking part in this study. For interviews, some people may feel slightly uncomfortable discussing personal opinions or cultural views. You can choose not to answer any question or stop at any time without giving a reason. Your responses will be kept anonymous and confidential, so there is no risk to your privacy.

This research is beneficial in understanding how young adults think about clinical trials. It will support improvements in health communication and recruitment for future clinical research. Give you a chance to share your views on an important healthcare topic that affects public trust and access to new treatments.

WILL TAKING PART BE CONFIDENTIAL?

No personal information will be asked except for the age and gender in the survey. Your personal data will never be used beyond the research needs. No controversial or confidential questions have been asked in the survey. The confidentiality will not be broken in the research. There is no risk or harm of any kind in filling out the survey or being a part of this research. The confidentiality can only be broken in the rarest case if any government or law-based enquiry is raised, while your participant will still not be questioned. Non-anonymised data in the form of signed consent forms and audio recordings are collected and retained as part of the research process.

HOW WILL THE INFORMATION YOU PROVIDE BE STORED AND PROTECTED?

Signed consent forms will be retained in storage of data and this will be handed over to the college in an electronic format as part of the thesis submission, i.e. primary data and completed ICFs where applicable will be added to the primary data folder on university moodle until the exam board confirms the results of their dissertation. Under freedom of information legislation, you are entitled to access the information you have provided at any time.'

WHAT WILL HAPPEN TO THE RESULTS OF THE STUDY?

The results of this study will be used in my MSc dissertation. The final dissertation will be available in the college library and may also be uploaded to an online academic repository. No individual participant will be identified in any part of the report or in any future publications.

WHO SHOULD YOU CONTACT FOR FURTHER INFORMATION?

Researcher:

Miss. Ketki Rajaram Vishe

Griffith College Dublin

Email: visheketki16@gmail.com

Phone: +353 899401992

[THANK YOU]