August 2022

The Lived Experience of Trainees and Supervisors regarding Mentoring in UK Postgraduate Medical Training: A descriptive phenomenological approach

BY: 20407875

WORD COUNT: 16,346 (EXCLUDING THE COVER PAGE, ABSTRACT, TABLE OF CONTENTS, REFERENCES, AND APPENDIXES)

MMEDSCI MEDICAL EDUCATION

UNIVERSITY OF NOTTINGHAM

FACULTY OF MEDICINE AND HEALTH SCIENCES

Abstract

Title: The Lived Experience of Trainees and Supervisors regarding Mentoring in UK Postgraduate Medical Training: A descriptive phenomenological approach

Student ID: 20407875
Word count: 357

Background
Mentoring has been found to have many advantages for NHS doctors. According to Steven et al. (2008), the benefits span across three main areas: professional practice, personal well-being, and development; therefore, not only affecting one's professional career but also improving their personal life. Unfortunately, despite these benefits, the mentoring task of the supervisor, is often being overlooked during the trainees' evaluation meeting.

Aim
The aim of this study is to better understand the phenomenon of mentoring that occurs in UK postgraduate medical training programs by describing it from the lived experiences of trainees and supervisors.

Methods
This project is based on the methodology of descriptive phenomenology. The methods used were that of semi-structured interviews with scholars on the MMedSci Medical Education course at the University of Nottingham. The transcripts were then analyzed using Colaizzi's method of data analysis to find common themes to describe their lived experiences.

Results
The phenomenon of mentoring in postgraduate medical training in UK is rarely experienced by trainees and supervisors alike. A lack of proper time, training and awareness were all noted as limitations to access of this service, and the experiences achieved were mainly self-sought and informal sessions outside the domain of supervision. In addition, there is a consensus regarding mentoring to be a voluntary activity that is dissimilar to the relationship with the supervisor.

However, upon further understanding and analysis of their experiences, themes were clustered describing their opinions and desires around the topic.
Theme 1: A desire for a developmental and individualistic mentoring experience.
Theme 2: Lack of time to engage in mentoring sessions.
Theme 3: A good mentor-mentee relationship is based on a longitudinal trusting connection.
Theme 4: An ideal mentoring session would be voluntary and separate from supervision.

Discussion
If most individuals did not experience proper mentoring, what are the reasons?
What can be done? Is there hope for a system-wide change?

Ethical Approval
This study is based on the lived experiences of human participants and thus requires ethical approval from the Research Ethics Committee of the Faculty of Medicine and Health Sciences at the University of Nottingham. Approval was achieved with reference code: FMHS 445-0122.

Table of Contents

Acknowledgements

The idea, design, and execution of this study were carried out by scholar 20407875, including:

- Submission of ethics proposal and obtaining ethical approval.
- Creating an online interview schedule.
- Carrying out the interviews alone.
- Transcription of the interviews.
- Analysis of the data including the identification of themes.
- Write up of the dissertation and development and the poster and PowerPoint presentation.

Dr RM is the appointed research supervisor for the research author. Ten supervision meetings were undertaken throughout the course of the academic year 2021-2022. During the meetings:

- The research question was confirmed and focused.
- The ethics proposal was discussed and agreed before applying to the ethics committee.
- The interview questions and invitation announcement were discussed.
- The methodology and methods were aligned.
- The categories and themes that arose as the data was being analyzed were discussed.
- The first draft of the dissertation was shared, and general suggestions were made about areas that needed refinement.

The scholar would also like to acknowledge:

- A big thank you to the research supervisor for the continuous guidance and reassurance.
- The support from Dr SA and Dr RP throughout the academic year.
- The volunteers who were generous enough to offer their time to sit for interviews.
- The undeniable love and support from friends and family 'Thank you for believing in me, I couldn't have done it without you!'

Definitions and Abbreviations

Definitions:

Clinical Supervisor: The GMC definition of a Clinical Supervisor is 'A trainer who is selected and appropriately trained to be responsible for overseeing a specified trainee's clinical work and providing constructive feedback during a training placement (HEE, 2022).

Educational Supervisor: The GMC definition of an Educational Supervisor is 'A trainer who is selected and appropriately trained to be responsible for the overall supervision and management of a specified trainee's educational progress during a training placement or series of placements (HEE, 2022).

In this research project, whenever the word 'supervisor' is used without specifying whether it is clinical or educational, please consider that it is referring to the educational supervisor as the focus of the project is to describe the experience of mentoring within the overall postgraduate medical training program and supervision.

Abbreviations:

COPMED - Conference of Postgraduate Medical Deans
CS - Clinical Supervisor
ES - Educational Supervisor
FMHS - Faculty of Medical and Health Society Ethics Committee
GMC - General Medical Council
HEE - Health Education England
MMedSci - master's in medical science's program
Moodle - Modular Object-Oriented Dynamic Learning Environment
MS Teams - Microsoft Teams
NHS - National Health Service in the UK
P# - refers to the participant number
UK - United Kingdom
USA or US - United States of America

Chapter 1 – Background

Context

The context of this study revolves around the subject of mentoring and supervision in the postgraduate medical training programs in the United Kingdom. It will describe a year-long project that was due by the end of August 2022 in which the goal was to undergo a study in a healthcare professions educational subject of choice.

Developing a Research Question

Before beginning any research project, it was vital to develop a proper research question, choose the conceptual or theoretical framework to guide the study, and decide on the appropriate methodology and methods to carry it out.

For the question to be viable for a good study, it must be clear and focused on a single problem or issue, specific enough to be answered thoroughly and new enough that the results will be a valuable addition to the growing body of literature in that field.

Furthermore, the type of study should be stated clearly (whether it is qualitative or quantitative), and the design that follows should be aligned with the intentions of the project.

This project is a qualitative research study designed to address the knowledge gap in the literature around the experience trainees and supervisors have with mentoring in postgraduate medical education in the United Kingdom.
Qualitative research is a chance to explain a model, event, or theory inductively rather than undertaking a deductive assessment of data (Tavakol and Sandars, 2014). Our description of lived experiences can only be undertaken via such a study approach.

The study does not revolve around setting a hypothesis or gathering numerical data; instead, the author follows the concept of posing a research question about this topic that will then determine which study design would be best suited for answering the question.

The purpose then, is to answer the primary question to the best of the author's ability.

<u>Primary Question:</u>
What is the experience of trainees and supervisors with regards to mentoring during postgraduate medical training in the United Kingdom?

Literature Search

After defining the research question, the following steps were undertaken to produce a proper literature search and consequently review.

1. The author had to first decide which research databases to use to look for relevant articles.
   In this study, OVID, ERIC, and PubMed were the databases of choice being as they are reliable archives for research in the medical field.

2. Relevant keywords and phrases were highlighted and became the basis of the literature search.
   Based on the research question, 'What is the experience of trainees and supervisors with regards to mentoring during postgraduate medical training in the United Kingdom?', the following words and phrases were highlighted:
   - Experience
   - Trainees
   - Supervisors
   - Mentoring
   - Postgraduate medical training
   - United Kingdom

3. The author also noted the importance of finding alternative words for the highlighted choices to have a list of options to search with (to discover all possible articles relevant to the desired topic).
   Some examples of alternative search terms for the selected key words above that were entered into the search engine:
   - Perspective, feelings, thoughts, point of view
   - Resident, doctor, student, graduate
   - Physician, consultant, advisor, educational/clinical supervisor
   - Coach, role model, guiding
   - Medical education, residency program, specialty training
   - England, Great Britain

4. Next it was important to define the time limit and search the databases using the words above, making sure to consider truncations (by adding an Asterix at the end pf the word to allow for multiple options to appear, for example mentor* may show results for mentors, mentoring, mentorship etc.).
   The author decided to focus on research from the years 1998 to 2022 to keep up with the most up to date and relevant information on the topic.

   As there is no intervention or comparison, the PICO search model commonly used in healthcare research is not completely applicable in this case. However, the search could be classified using the SPICE framework as follows:

S – Setting – "United Kingdom" OR UK OR England OR "Great Britain"
AND
P – Perspective – trainee* OR resident* OR doctor* OR "educational supervisor" OR "clinical supervisor"
AND
I – Interest – mentor* OR supervis* OR advis* OR guid*
AND
C – Comparison – not applicable
E – Evaluation – experience* OR thought* OR feeling* OR "point of view" OR "lived experience*"

Using this, the databases produced the following number of hits with the limits above.
OVID: 2871
ERIC: 44
PubMed: 5242 brought down to 34 upon changing the search bar options

Due to pragmatic reasons, the top 200 results from each database were then scanned by the titles of the articles to pick out a long list of relevant articles.

5. Refine the search and limit the review.
   After going through the titles and abstracts of the articles, the final search results for the literature review were limited to 30 articles.

   All those articles were read in full by the author and used as the basis of the background and discussion chapters.

Literature Review

The General Medical Council is an independent organization in the United Kingdom (UK) that helps to protect patients and improve medical education and practice across the UK. COPMeD is the Conference of Postgraduate Medical Deans (UK). It provides a focus for those responsible for the strategic overview and operational delivery of postgraduate medical training in the four nations of the United Kingdom, and by ensuring excellent training, is a key player in maintaining quality of care and patient safety.
They have created the framework that is now followed by all employees of the National Health Service (NHS) and medical training educators across the country. The Gold Guide is the specific reference guide used for postgraduate foundation and specialty training in the United Kingdom. It determines the necessary achievements that are required at each step of training and designates the roles of those who assess them.

According to the Gold Guide (2020), during foundation and specialty training years (also known as the postgraduate medical training phase), each trainee is appointed an educational supervisor throughout

the different stages of their training. They are also appointed a clinical supervisor and an academic supervisor, but for the purpose of this study the focus is on the educational supervisor which will from now on be referred to simply as supervisor. The supervisors that are selected must undergo specific training to be able to be considered ready for undertaking this vital role. Their preparation involves instruction on proper ways of educational assessment and feedback to oversee the improvement of the trainee as well as guide them during a training placement and provide support for their careers (Gold Guide, 2020) and (Kilminster et al., 2007).

Various roles are appointed to the supervisor. These include: gathering information from clinicians (that do the job of a clinical supervisor) on the students' practical achievements on the placement to evaluate their medical practice and clinical performance, providing feedback to the trainee about their progress and work together to fix any problems or concerns that may arise, as well as signing off on the necessary academic checkpoints needed to be successfully completed at each level of training in order to be deemed satisfactory to move to the next level (Kilminster et al., 2007).

In addition, the supervisor is also allocated the role of the trainees' mentor during their postgraduate training. The main responsibilities of this job are to encourage personal development and to offer psychosocial support to a trainee within the span of the relationship (Mellon and Murdoch-Eaton, 2015). This aspect of supervision takes on more of a formative assessment rather than a summative one, which opens opportunities for growth and collaboration outside the pressures of reaching a target training goal.

Mentoring itself has been found to have many advantages for NHS doctors. According to Steven et al. (2008), the benefits span across three main areas: professional practice, personal well-being, and development; therefore, not only affecting one's professional career but also improving their personal life. Moreover, further analysis of that study described a concept in that when mentoring benefits one area, it will also end up benefitting other areas as well because the doctors themselves would be much more satisfied with their work (Steven et al., 2008). The strength of this article also comes from the fact that it was done over six different programs in the UK which, in turn, highlights the importance of the mentor role in a supervisor position across the board.

Another study that was done to see the impact of mentoring during postgraduate training, focused on its effect specifically on doctors' career success. The results confirmed the positive impact mentorship had longitudinally on career growth and personal motivation despite the lack of evidence of a formal mentoring program being available (Stamm and Buddeberg-Fischer, 2011).

Despite the highly valuable impact of mentorship during postgraduate medical training and all the supporting evidence behind it, it has not yet been fulfilled.

Unfortunately, despite these benefits, the mentoring task of the supervisor, is often being overlooked during the trainees' evaluation meeting. The issue of time was identified as one of the main reasons for this lack of focus on mentoring during the sessions (Mellon and Murdoch-Eaton, 2015). Other studies, asking second year foundation trainees and supervisors about their experience, suggested the lack of proper supervisor training in the domain of mentoring and believed additional instruction is required (O'Brien et al., 2006).

Furthermore, the supervisor's role as a performance evaluator can lead to some challenges. When trying to be a mentor and a friend, potential conflicts may come up between the roles of mentor or supervisor (Mellon and Murdoch-Eaton, 2015). Consequently, they may find themselves struggling in wanting to help their student instead of ending up having to negatively evaluate them so they may choose to disregard the mentoring aspect in the first place. On the other hand, the trainees might also be at a loss whether to bring up certain personal issues to this kind of supervisor, at the risk of it affecting their assessment and progress in their career.

With all these facts and interpretations, we can look at a study done in Sheffield in 2015 where researchers tried to see if there is a difference between the supervisor and the mentor in a pediatric training program (Mellon and Murdoch-Eaton, 2015). The review argued that despite an overlap in priorities, it may be valuable to divide the activities of the supervisor and look at mentoring as an opportunity to improve their trainees in the program.
In a response article to the review mentioned above, it was believed that the trainee may indeed need, or benefit greatly from, having a separate mentor with time to focus on that aspect of personal development and self-discovery outside the norms of career focused supervision (Brightwell and Eisen, 2015).

<u>A more critical approach:</u>
Before the training phase, it can also be argued that mentoring is vital for the internship phase before the decision of choosing a specialty program is made. A study aimed to understand how the internship experience in Korea affected career identity was conducted using semi-structured interviews with interns at a university hospital in Korea who had completed internships and chosen a specialty. After inductive thematic analysis of the data one of the themes identified was the recognition of mentor importance in making a career decision (Lee and Ahn, 2021). Despite the focus of this study not being on the aspect of mentoring, the fact that it came out as a theme after data analysis signifies its relevance to the careers of physicians. They mentioned that "participants contemplating several specialties were able to consider their future careers by seeking direction through senior residents' and professors' positive or negative influences" (Lee and Ahn, 2021).

Another way to look at this is from a wider perspective, looking at and analyzing research done in other countries like the United States of America, Canada, Australia and more.

A longitudinal study done in Switzerland made use of a cohort design to investigate the impact of mentoring during postgraduate specialist training on the career success of doctors. The study confirmed the positive impact of mentoring on career success; however, noted a discrepancy between male and female doctors where the latter was mentored less frequently (Stamm and Buddeberg-Fischer, 2011). Nevertheless, on looking at the details of this study, the assessment of mentoring success was based solely on a Mentoring Support questionnaire with a 5-point Likert Scale which were then statistically analyzed, leaving no room for exploring the reasons behind the mentoring success.

An interesting study in the United States of America explored the benefits of creating a novel program called 'Mentor, Advisor, and Coach' in which internal medicine residents (also known as trainees in the UK), were matched with physicians of the same field and were asked to follow a road map program of mentoring throughout a set academic year. Following which only surveys and focus groups were used to obtain the results of the study which showed that most participants believed the program to be beneficial and noted that individualized relationships and meeting content were key to the program's success. Areas for improvement included clarification of the program's purpose and each party's responsibilities in scheduling meetings (Patel, Windish, and Hay, 2020). Interesting notes about this intervention were the proper time that was taken before the study began to prepare and train the faculty physician members for their roles as mentors as well as the detailed matching process, they used to make sure the residents were compatible with their mentors. This intentional commitment can arguably be the reason behind the success of the project and may not however be an accurate representation of the NHS system of trainee supervisor coordination.

Similarly, a study in Canada also created a program for the residents; however, they focused on using it to build capacity for clinical research. It is also a year-long project but instead of the implementation and results we saw from the 'Mentor, Advisor, and Coach' program, the article focuses on describing what needs to be done to achieve a successful mentoring program (Wong et al., 2021).

Furthermore, multiple US residency (also known as training) programs have discussed the benefits of mentoring for their students. One article describes the experience of a surgeon in the Department of Surgery at Massachusetts General Hospital, in which an in-depth appreciation for mentors and their roles are clearly described, and the ways in which their trainees can benefit most from their program (Souba, 1999). However, no methods were used to describe or prove if what is being said is occurring. A similar article was written in the UK and Ireland, also explaining the recommendations for mentoring programs for the surgical trainees. Here Sinclair et al. (2014) review the available literature expressing the values relating to the nation-wide studies regarding the percentages of mentors working with trainees. They also highlight the desire of surgical trainees to have a mentor, whilst the majority do not have access to one. There is also limited training for those in mentoring roles. So far, a great idea about mentoring in the UK, however, these results have not yet shown any interviews or discussion studies with the trainees, and do not focus on the role of the supervisor in this training scheme.

Another article from the surgical department, this time in Canada, described the implementation of a group mentoring program designed to support the personal and professional development of their residents. Participation in the program was voluntary for both mentors and mentees, and the results were collected based on an anonymous participant program evaluations rating on a 5-point Likert Scale at the end of the first year (like the method used in the Switzerland study). With regards to mentorship most participants recommended a transition to self-selected, one-on-one mentorship relationships, but some expressed interest in an ongoing group program (Champion et al., 2015). The authors also speculated that the group format may also help alleviate time pressures on participants by providing an opportunity for longitudinal mentorship relationships among a cohort of residents. Despite not being a qualitative study, the results introduce a new concept of mentoring that may be used in programs that do not have a pre-designed one-on-one mentoring program; and the perceived benefits were suggestive of decreasing burnout and improving trainee experiences. However, this was not directly looked at in this study.

Another interesting article by Vieira et al. (2021) discusses the possibility of exploring mentoring within the radiology residency training programs similarly to that which occurred in medical schools. The paper focuses on the universal rules for establishing a successful mentoring relationship which include creating a relationship of trust and confidentiality, clearly defining roles and responsibilities, establishing short- and long-term goals, using open and supportive communication, and collaboratively solving problems. They admit that the formal faculty meetings are a stripped-down version of mentorship and lack the consistency and longitudinal nature truly needed for mentorship.

In addition, the article notes the importance of distinguishing between advice and mentorship. Advice, whilst helpful, is often a short-term solution for a certain specific problem and does not provide guidance or help the residents with issues concerning personal and professional development. And although their faculty sometimes appoint supervisors as mentors, the residents perceive a difference (Vieira et al., 2021).

Furthermore, the article highlights that mentee's who choose their own mentor, instead of getting one assigned, reported greater satisfaction, communicated more with their mentor, and reported greater aid in growth and development (Vieira et al., 2021). They also suggest the idea of having multiple mentors, not necessarily from the same field, who can help fulfill different needs for the trainees on a personal basis. So many great ideas and theories; however, is this being applied? And what's their residents' experience? It is not clear.

<u>Mentoring and other healthcare fields:</u>

Thinking outside the span of medical training, the benefits of mentoring have also been shown to guide individuals to prepare for an academic career as well as their medical one. Another US study developed a sixty-minute workshop to introduce participants to the importance of mentoring in the development of academic medicine careers and to provide instruction on establishing effective meetings with

prospective mentors. Following which a survey was given to analyze the significance, resulting in a statistically significant increase in confidence to "Find a mentor for a career in academic medicine" and "Have a successful relationship with an academic medicine mentor". However, there was no follow-up study done to observe if in fact those individuals sought any form of mentoring in their medical career.

Looking towards palliative care healthcare professionals, a qualitative study was done to explore if mentoring can help them with working in a low-income country. Whitehurst and Rowlands (2016) recruited several UK clinicians who were mentors with an international palliative care project. Then semi-structured telephone interviews were conducted, and the results were analyzed using an interpretive phenomenological approach. This study highlighted the need to prepare mentors before their in-country visits, the cultural challenges, and the needs of mentors and the facilitators to have support. This may minimize potential negative emotional impact of being a mentor, maximize positive personal and professional impacts and improve in-country project impact. Having performed a phenomenological study, the authors were able to identify what is occurring in this study and deduced from the interviews the common themes surrounding the needs to improve mentoring in this domain.

In Australia, the concept of mentoring has also been explored in the field of podiatry. The literature highlighted a cased-based study that focused on exploring the participants' experiences of a new mentoring program (Coppin and Fisher, 2015). This paper focuses on whether their professional association achieved its aim to provide clinical, career, and psychosocial support for members, and whether the expectations of the respondents participating in the group mentoring program were met. Despite being a funded research project, the methodology and methods chosen to reflect the importance of getting the perspective of the participants to adapt the results for future mentoring interventions in this field.

A note on diversity and ethics:

While going through more literature, an article done in the USA describing the increasingly diverse physician workforce proposed mentorship as one way to improve the retention and experiences of underrepresented physicians and trainees in medicine. The objective of their systematic review was to identify and describe mentoring programs for underrepresented physicians in academic medicine and to describe the important themes from existing literature that can aid in the development of specific mentorship programs (Bonifacino et al., 2021). Their final recommendations included the importance of institutional support for diversity, tailoring programs to local needs and resources, training mentors, and utilizing both underrepresented and non-underrepresented mentors. In comparison to the other literature this is focusing on a new area of diversity that is becoming increasingly important in healthcare literature; however, it is reinforcing the similar concepts for the need to train mentors specifically before they become part of the workforce.

In the field of nursing and physical therapists, it was also noted that minoritized students reported experiencing social isolation and discrimination and cited the lack of faculty representation as barriers

to their success. The recent article by Naidoo et al. (2022) explored the results of adding virtual mentoring to see if it decreases social isolation and promote social belonging among minoritized first-year physical therapy and nursing students using a mixed methods design. There results mentioned that while it took a while to establish an online connection, there was an increase in satisfaction with mentoring for the intervention group compared with no improvement for the comparison group who received traditional academic advising instead of mentoring. "Qualitative data analysis revealed that mentors served as role models who had overcome barriers and persevered, decreasing feelings of isolation, and bolstering mentee confidence" (Naidoo et al., 2022).

Filling the Gap

It is valuable to note that other healthcare domains have shown interest in separating the roles of the mentor and the supervisor. For example, in nursing, new standards have been recently set to create a clear division between the mentor and the assessor, where one clinical teacher can take on both roles, but not for the same student to allow proper focus on the different responsibilities of each title (Donaldson, 2019).

Thus, it verifies that there is increasing attention on this benefit, and one must explore this same concept for its application in the medical field and the future of postgraduate training. But what about hearing about this from the side of the trainees or the supervisors? What's their opinion on this phenomenon? Is it happening like this on the ground?

Since the literature search did not highlight any research that portrayed the point of view of the individuals for which the phenomenon of mentoring in training was intended, it is important that this project be designed to shed the light from a new perspective to what is currently actually happening within the domain of supervision in postgraduate medical training in UK.

Therefore, the researcher believes that it is first more important to assess this phenomenon from the perspectives of both trainees and supervisors and thus add to the growing body of knowledge about this topic to see how we can utilize the results to improve the lives of the UK trainees in their postgraduate medical education.

Rationale for the Study

The rationale for this study began by choosing a topic that not only interests the author in their strive towards being a medical educator, but also in the growing interest of this filed in the various healthcare professions across the country.

Having not found research articles that are both qualitative studies and depicting the phenomenon from the point of view of those experiencing it in the United Kingdom, the drive to complete this topic and fill some of this gap became even more pertinent.

Aim and Objectives

Purpose

This project is a qualitative research study designed to address the knowledge gap in the literature around the experience trainees and supervisors have with mentoring in postgraduate medical education in the United Kingdom. The study does not revolve around setting a hypothesis or gathering numerical data; instead, the author follows the concept of posing a research question about this topic that will then determine which study design would be best suited for answering the question.

The purpose then, is to answer the primary question to the best of the author's ability.

Primary Question

What is the experience of trainees and supervisors with regards to mentoring during postgraduate medical training in the United Kingdom?

Aim

The aim of this study is to better understand the phenomenon of mentoring that occurs in UK postgraduate medical training programs by describing it from the lived experiences of trainees and supervisors.

There is no secondary aim for this research project.
To achieve this goal, the following objectives for the study have been set.

Objectives

1. Review the literature regarding supervision and mentoring in postgraduate medical training with a focus on the notion of mentoring within the domain of supervision.
2. Interview trainee participants to gain insight into the lived experience of this phenomenon from their point of view.
3. Interview supervisor participants to gain insight into the lived experience of this phenomenon from their point of view.
4. Analyze the data collected in alignment with the chosen methodology to reach a final description of the phenomenon under study.
5. Compare the results to the available data and suggest ideas for future research.

To limit the task, the interview questions were targeted towards the mentorship aspect of a supervisor's role and how the participants have experienced it, to keep the conversation focused towards finding the answer to the primary question.

In addition, due to feasibility constraints, the study participants invited were current and past scholars on the MMedSci in Medical Education course at the University of Nottingham.

Chapter 2 – Methodology and Methods

The research design chosen for this topic is that of a qualitative study. Qualitative research is a chance to explain a model, event, or theory inductively rather than undertaking a deductive assessment of data (Tavakol and Sandars, 2014). Our description of lived experiences can only be undertaken via such a study approach.

The challenge however in choosing qualitative research, is to ensure trustworthiness and rigor. Following a well-established methodology and ensuring proper recruitment and data analysis are a few ways that can help, and we will discuss how further below in the design and ethics sections. Unfortunately, despite working on credibility, dependability, confirmability, and transferability, their remain other issues that need to be considered to maintain trustworthiness of the study (Connelly, 2016).

Methodology

The methodology chosen for this research project was decided after the primary question was set. The reason for this is to choose the most appropriate design for the topic and align it further with the correct methods and steps for data collection and analysis.

Thinking about the experiences of individuals with regards to a specific phenomenon, the study of phenomenology was deemed best fit for the project. Phenomenology is a form of qualitative research that focuses on the study of an individual's lived experiences within the world (Neubauer et al., 2019). The goal is to describe the meaning of the event that is being studied in terms of 'what' was experienced and 'how' it was experienced.

However, phenomenology can be further subdivided into descriptive (transcendental) and interpretive (hermeneutic) approaches to the research. Descriptive phenomenology focuses on approaching the subjects with an unbiased view and understanding their point of view without any interpretation from the author. Interpretive phenomenology on the other hand, uses the experience of the author to better understand and deduce the participants rationale regarding the topic of interest (Patton, 2020).

Being an external observer, with no preconceived notions nor experience in the NHS or mentoring, the author believed a transcendental approach would be a better fit. Thus, it is important to clarify which of these subtypes is better for answering the posed question and why descriptive phenomenology was deemed most suitable for this project.

In addition, it is important to consider the theoretical or conceptual framework of a research study. The theoretical or conceptual framework is what guides the research study, and from it the rest of the study can be designed.

Following on from the literature review, it was clear that the concepts that helped develop the research question arose from the strong evidence base around the benefits of having mentoring for NHS doctors. This idea was explored and discussed in an extended qualitative analysis study done across six different NHS mentoring schemes where the results showed that the benefits go well beyond that of just professional improvements but can also enhance personal developments and wellbeing (Steven et al., 2008).

The evidence that exists shines a light on the importance of the topic and though a framework has not been used, the concepts have guided the researcher to develop a study which highlights on its importance and emphasizes on mentoring for the future of medical education.

Furthermore, it is important to mention the researcher's ontological and epistemological views that helped guide the research project.
The author believes in the relativist theory of knowledge. It is the position that knowledge is valid only relatively to a specific context, society, culture or individual. So, to better understand the viewpoint of trainees and supervisors on the application of the evidence behind mentorship in their training, we must adopt this theory and see how much knowledge we can gain from their experiences.

The philosophy of phenomenology is the study of a phenomenon, for example something as it is experienced (or lived) by a human being that means how things appear in our experiences. Consequently, there is a strong emphasis on lived experiences in phenomenological research (Dowling & Cooney, 2012; Norlyk & Harder, 2010). In this paper, lived experience is understood from a lifeworld approach originating from the writing of Husserl (Dahlberg, Dahlberg, & Nystr, 2008). The lifeworld is crucial and becomes the starting point for understanding lived experiences.

Hence, the lifeworld forms the ontological and epistemological foundation for our understanding of lived experiences. In the lifeworld, our experiences must be regarded in the light of the body and the lifeworld of a person (i.e., our subjectivity). Consequently, humans cannot be reduced to a biological or psychological being (Merleau-Ponty, 2002/1945). When understanding the meaning of lived experiences, we need to be aware of the lifeworld, our bodily being in the world and how we interact with others. The understanding of lived experiences is closely linked to the idea of the intentionality of consciousness, or how meaning is experienced. Intentionality encompasses the idea that our consciousness is always directed towards something, which means that when we experience something, the "thing" is experienced as "something" that has meaning for us.

Thus, the ontological views of the researcher revolve around the concept of reality being internal to the knower and encompasses what appears in their consciousness. And to correctly define the experience being studied, the epistemology requires the observer to separate themselves from this world, to reach the state of the transcendental I: bias-free; understands phenomena by descriptive means.

Furthermore, Husserl contended that no assumptions should inform phenomenology's inquiry; no philosophical or scientific theory, no deductive logic procedures, and no other empirical science or psychological speculations should inform the inquiry (Neubauer et al., 2019). Therefore, in a descriptive phenomenological approach, based on the writing of Husserl (Dahlberg et al., 2008) such meanings can be described. From this point of view, there are no needs for interpretations of these meanings, although this may be argued differently in interpretive phenomenology.

Intentionality is also linked to our natural attitude. In our ordinary life, we take ourselves and our life for granted, which is our natural attitude and how we approach our experiences. We usually take for granted that the world around us is as we perceive it and that others perceive it as we do. We also take for granted that the world exists independently of us. Within our natural attitude, we normally do not constantly analyze our experiences. In phenomenology, an awareness of the natural attitude is important.

To note that no other contributing theories have been used for the development of this research proposal.

Methods Chosen

Sampling Criteria

Ideally for a phenomenology research project, a sample size of at least 7 to 10 participants is accepted. The target was to have some of the participants be from the trainees' point of view, and the others from the perspective of the supervisors.

Inclusion criteria (all the below must apply):

1. Current or past scholar on the MMedSci in Medical Education program.
2. Participant is currently, or was, a trainee or a supervisor in the UK NHS postgraduate medical training program.

Exclusion criteria:

1. Current or past scholar on the MMedSci in Medical Education program; however, does not currently work in the NHS or work in different healthcare fields in the NHS other than medicine.
2. Current or past scholar on the MMedSci in Medical Education program; however, is still in the undergraduate medical training program.

Recruitment of the Participants

The method of data collection that was used in this study is that of interviews. The interviews conducted were in a semi-structured (and open ended) format to allow the participants to speak freely outside the constraints of a structured question, as is common with the qualitative interview

(Swanwick, 2019). This also allows the participant to bring up topics that may not have been mentioned in the questionnaire, giving the researcher a more comprehensive view of the experience.

The reason for choosing the interview versus the focus group method was to allow for individual experiences to be expressed in-depth and developed fully, especially that the trainee-supervisor relationship is also one that holds a level of its own privacy and confidentiality that may not want to be shared in a group setting.

The selection of participants was achieved on a voluntary basis. A Moodle announcement was posted on the MMedSci in Medical Education's Moodle homepage inviting them to participate in the study. An in-class announcement was also made during the teaching day of 'Coaching, Mentoring and Supervision' for the scholars who may have missed the invitation post. Personal emails were not sent out to the scholars to reduce any pressure to volunteer, as well as to follow ethical research guidelines.

The reasons for selecting this specific group of people are: first, their interest in the subject of supervision in medical education and training, second many of the scholars are also healthcare workers for the NHS and are thus either trainees or have become supervisors in the UK system (this is important to understand the phenomenon that is being studied), and third the feasibility of access to them as a researcher also on the Medical Education program.

The interview questions were discussed with the research supervisor, and the final version of the questions are shared below:

1. What is your role in UK postgraduate training (trainee/supervisor)? Which type of supervisor (is mentoring included in the role)?
2. What is your definition of supervision?
3. What does mentoring mean to you?
4. Can you tell me about your experience of giving or receiving mentoring in UK postgraduate medical training?
5. Is mentoring happening within the supervision domain/meeting?
6. How do you think mentoring can be helpful in medical training?
7. What are your thoughts on having an assigned mentor for each trainee in postgraduate training?
8. Do you have any more thoughts you would like to share about this topic?

Data Gathering Process

The interviews were all held over Microsoft Teams and consent for a recording was taken. Within this recording, an automated transcription was produced.

The interviews lasted between thirty minutes to one hour. The researcher re-listened to the recordings after they were complete to edit the mistypes of the automated transcription.

The only source of the data came from the interviews with the participants.

To note, the data was managed according to the detailed data management plan that was submitted alongside the documents for the ethics approval from the 'Faculty of Medical and Health Society Ethics Committee' at the University of Nottingham.

Data Analysis Method

The strategy for data analysis depends on an alignment with the chosen methodology and the methods that were used for data collection.

In the case of interviews, the data collected first needed to be transcribed into text format before being able to analyze it. Once transcribed a series of processes was considered to have the data completely analyzed.

A common method of data analysis used with descriptive phenomenology is the Colaizzi Method.

Usually for the phenomenological approach, the researchers must search for meaning units that reflect the dimensional aspect of lived experiences; however, this must be done without considering the researcher's preconceptions. This is called "Unknowing: a process of decentering researcher's perspectives to understand the contextual experiences described by research participants" (Urcia, 2021) which can also be described as bracketing which will be explained further at the end of this chapter.

The steps that will be followed to analyze the data are piloted by the Colaizzi method (Morrow et. al, 2015) and can be broken down into the following:

Table 1 - Steps in Colaizzi's descriptive phenomenological method of Data Analysis

Step	**Description**
1. Familiarization	The researcher familiarizes him or herself with the data, by reading through all the participant accounts several times.
2. Identifying significant statements	The researcher identifies all statements in the accounts that are of direct relevance to the phenomenon under investigation.

3. Formulating meanings	The researcher identifies meanings relevant to the phenomenon that arise from a careful consideration of the significant statements. The researcher must reflexively "bracket" his or her pre-suppositions to stick closely to the phenomenon as experienced (though Colaizzi recognizes that complete bracketing is never possible).
4. Clustering themes	The researcher clusters the identified meanings into themes that are common across all accounts. Again, bracketing of pre-suppositions is crucial, especially to avoid any potential influence of existing theory.
5. Developing an exhaustive description	The researcher writes a full and inclusive description of the phenomenon, incorporating all the themes produced at step 4.
6. Producing the fundamental structure	The researcher condenses the exhaustive description down to a short, dense statement that captures just those aspects deemed to be essential to the structure of the phenomenon.
7. Seeking verification of the fundamental structure	The researcher returns the fundamental structure statement to all participants (or sometimes a sub-sample in larger studies) to ask whether it captures their experience. He or she may go back and modify earlier steps in the analysis in the light of this feedback.

Ethics to Consider

It must be taken into consideration that the study's target revolves around the lived experiences of human participants and their own reflections about a specific phenomenon as the basis of this qualitative study. Thus, ethical approval had to be achieved before embarking on the stage of recruitment and data collection.

The process of applying for ethical approval involved different steps. First, a research integrity course had to be completed on the Moodle platform of study. Then, a detailed report of the research design, methods, process of data collection, analysis and management plan had to be described. Furthermore, a participant information sheet, consent form, invitation announcement and sample of interview questions had to be attached to the request form.

The study was awarded approval from the 'Faculty of Medical and Health Society Ethics Committee' at the University of Nottingham with reference number FMHS 445-0122. Approval from the director of the postgraduate taught course 'MMedSci in Medical Education', and the module convenor of the 'Coaching, Mentoring and Supervision' module was also achieved before the start of the project.

Trustworthiness of the Study

When improving the trustworthiness of the study, the author considered the ways that reliability and validity could be increased.

One of the ways to increase the validity is through the last step of the Colaizi method of data analysis. By seeking verification from the research participants after the phenomenon had been described, the results become more reliable, adding strength to the analysis of the study.

In addition, ethical implications were considered from the beginning, to ensure that all steps of the research were occurring to a proper standard.

Before participating in the study, all participants were informed about the details of the research project (its aims, objectives, etc.) and how the information they share with us would be used. They were able to ask any questions before choosing whether they wanted to participate or not, after which they signed a written consent form agreeing to take part in the interview process. Participants also had the right to withdraw from the study at any given time and request all data collected to be erased from the record and not be included in the study, should they feel the need to do so.

To achieve true anonymity, the researcher must not know the identity of the participant (such as with the case of using a questionnaire method); however, in the circumstance of using interview methods, one cannot do so; thus, the aim was to achieve confidentiality instead (Roth and von Unger, 2018). Participants in this study were ensured confidentiality by having their information password protected upon collection, and by not disclosing any identities or private data in the results section of the study. They were also informed that anything they chose to share was strictly confidential and only used for the purpose of the study.

In addition, there was a chance that the topic may bring up negative feelings or experiences that occurred during the participants' careers and personal lives; therefore, it was vital to acknowledge this possibility before and during the interview, reiterate to them the protection of their information, and most importantly be as gentle as possible with asking the questions. Signposting the individual to the appropriate health and wellbeing services was ready to be provided if necessary.

As the participants of the study are working individuals in the NHS as well as part-time students on the MMedSci Medical Education course, their time for participating in the project was also taken into consideration. The interview period with each participant did not exceed one hour and was arranged based on the convenience and preference of the individual volunteer.

Finally, the concept of bracketing is one that is specific to the descriptive phenomenological approach. This is a method that needs to be used in qualitative studies, following a specific framework, to lessen

the outside perspective of the researcher on it affecting the research process and data analysis (Tufford and Newman, 2012). Some researchers that use the interpretive paradigm must reflect on rather than bracket their preconceptions and work with the participants to find underlying meanings that shape the phenomenon (Urcia, 2021); however, in descriptive phenomenology, it is better to separate the researcher's ideas from the topic so as not to influence the desired answer to the questions asked. Therefore, bracketing was used throughout the study with the aid of a reflective journal where the author's presumptions and biases were noted and kept open at every step of the process.

Chapter 3 – Results

Study Participants

Ideally for a phenomenology research project, a sample size of at least 7 to 10 participants is accepted. The target was to have some of the participants be from the trainees' point of view, and the others from the perspective of the supervisors.

Inclusion criteria (all the below must apply):

1. Current or past scholar on the MMedSci in Medical Education program.
2. Participant is currently, or was, a trainee or a supervisor in the UK NHS postgraduate medical training program.

Exclusion criteria:

1. Current or past scholar on the MMedSci in Medical Education program; however, does not currently work in the NHS or work in different healthcare fields in the NHS other than medicine.
2. Current or past scholar on the MMedSci in Medical Education program; however, is still in the undergraduate medical training program.

Following the specific criteria described above, the total number of volunteers for the study was that of 9 participants.

The selection of participants was done on a voluntary basis. A Moodle announcement was posted on the MMedSci in Medical Education's homepage inviting them to participate in the study.

The reasons for selecting this specific group of people are: first, their interest in the subject of supervision in medical education and training, second many of the scholars are also healthcare workers for the NHS and are thus either trainees or have become supervisors in the UK system (this is important to understand the phenomenon we are studying), and third the feasibility of access to them as a researcher also on the Medical Education program.

The volunteers were all treated equally and asked the same interview questions and could be categorized into:

- Number of trainees interviewed= 6 individuals
- Number of supervisors interviewed= 3 individuals

The age and gender demographics were not recorded as a factor affecting this study design, as they were not directly relevant to the research question, so did not warrant storing this personal information.

The individuals expressed an interest to participate in the study either via email or face-to-face. The participant information sheet and consent form were explained to them before the interview took place and any questions were answered before the recordings started. The consent forms were digitally signed and returned to the researcher by email.

In addition, each volunteer received a random participant number (unknown to the individuals), and all personal information were anonymized upon transcription of the interview.

The interviews were all held over Microsoft Teams and were set up in advance based on the preference and availability of the participants.

The meetings lasted between thirty minutes to one hour, depending on the individual. Following that the researcher went over the recordings and edited the audio transcriptions that were automatically created by the MS Teams application.

Data Analysis Explained

The results of the study are a consequence of following the Colaizzi method of data analysis. This method is commonly used with descriptive phenomenological studies to achieve a proper description of the phenomenon based on the aligned research process (Morrow, 2015) .

Table 2 - Steps in Colaizzi's descriptive phenomenological method of Data Analysis

Step	**Description**
1. Familiarization	The researcher familiarizes him or herself with the data, by reading through all the participant accounts several times.
2. Identifying significant statements	The researcher identifies all statements in the accounts that are of direct relevance to the phenomenon under investigation.
3. Formulating meanings	The researcher identifies meanings relevant to the phenomenon that arise from a careful consideration of the significant statements. The researcher must reflexively "bracket" his or her pre-suppositions to stick closely to the phenomenon as experienced (though Colaizzi recognizes that complete bracketing is never possible).
4. Clustering themes	The researcher clusters the identified meanings into themes that are common across all accounts. Again, bracketing of pre-suppositions is crucial, especially to avoid any potential influence of existing theory.

5. Developing an exhaustive description	The researcher writes a full and inclusive description of the phenomenon, incorporating all the themes produced at step 4.
6. Producing the fundamental structure	The researcher condenses the exhaustive description down to a short, dense statement that captures just those aspects deemed to be essential to the structure of the phenomenon.
7. Seeking verification of the fundamental structure	The researcher returns the fundamental structure statement to all participants (or sometimes a sub-sample in larger studies) to ask whether it captures their experience. He or she may go back and modify earlier steps in the analysis in the light of this feedback.

The following steps relate to the numbers and descriptions found in Table 1 above.

Step 1 of the Colaizzi Method of Data Analysis:

The first step of the process "familiarization" required that the researcher become familiar with the data by reading through the transcripts several times. This was achieved by first listening to the recorded conversation after the meeting to edit the transcription, and then reading through the word document pages later once all the interviews were completed.

Step 2 of the Colaizzi Method of Data Analysis:

The second step is "identifying significant statements" that are directly related to the phenomenon of mentoring withing postgraduate training. This was done while going over the transcripts again; the researcher used Microsoft word to copy and paste relevant quotes from participants into one new word document.

Some examples of significant statements are included in the table below:

Table 3 – Examples of significant statements from transcripts for the second step of the Colaizzi Method of data analysis

Participant #	**Significant Statements**
P1	"I would see a mentor as someone that would help me if I was getting stuck. So supervisors are kind of there all the time, helping guide me through training. Whereas a mentor would be something that would be like an an extra voluntary

	kind of process that I went through if I felt like I was kind of stuck at something or unsure, struggling with something."
P3	"I think it will be very helpful because mentoring will encourage self reflection. The trainees will open up. They can say what they think and they can find solutions. And sometimes that solution may be like changing career. I think it would be very useful because it helps trainees to find out what they really want to do."
P4	"It's really nice to feel like someone's got your back in this world where we're working really hard and it's just really, really nice to know that you've got someone that will support you and help you, like, recognize when you need to pull back a little bit, but also then help push you forward."
P6	"I think it's the most powerful thing. If people are given time to do it, I think."
P8	"I think it's also got to do with training and the culture. That perhaps mentorship's not really been inculcated within the culture. I think it's just so busy providing a service that we haven't got supervisors who are necessarily trained so they may not even know about how do we mentor a student or a doctor."

Step 3 of the Colaizzi Method of Data Analysis:

Following the extraction of the significant statements, the researcher then looked through all the statements together (in the new word document outside of the influence of each transcript), to identify "formulating meanings" relevant to the phenomenon.

An example of how this was done is demonstrated in the table below.

Table 4 – An example of step 3 of the Colaizzi Method of data analysis

Significant Statements	**Formulated Meaning**
"Mentoring is the development of other people, it's about listening. It's about empathic, challenging, and helping people to come up with their own solutions to problems". P6	The focus of mentoring is to allow the mentee to come guide and lead the session.
"I think it's more sort of in depth than a supervisory role in that you see them through specific tasks that may not be clinically related. It could be nonclinical related (leadership, management). So, more, what of the hidden	The span of mentoring also includes nonclinical developmental focus on the individual.

sort of curriculum, I suppose. Just watching them grow." P8	
"I just feel that it just the supervision meetings they may not be as long, but it almost feels like it's a very surface thing. You don't really go in depth to explore further, not even their training needs, but other things to help them develop as a doctor and as they gradually get up the ranks as well." "I think mentoring should be a lot more in depth that you really touch on different aspects. I think there's lots to explore." P8	A need for more in-depth assessments and broad recognition of what a mentee is going through.
"You meet them regularly, semi regularly, they'd have an understanding about who you are as an individual and that relationship that you build would be beneficial, I think to the mentoring process as opposed to having an external person that you'd have to like repeat your background all over again." P9	The importance of having regular meetings with the same individual.
"What matters is what sort of relationship and boundaries the mentor and mentee have, and if the foundation is good. Probably like totally different, maybe like therapy and if you get a good therapist, I think regardless of the distance, you can always work something or maybe do something online. If you're lucky, you can meet them physically." P2	Having a strong foundation and trust with your mentor to build a good relationship.

Another example of this step is also included below to demonstrate how more than one theme was developed:

Table 5 - Another example of step 3 of the Colaizzi Method of data analysis

Significant Statements	**Formulated Meaning**
"But the problem would be to find a time and space for that." P3	Identified issue of finding time and space to provide mentoring.

"I think to improve culture in an organization is to offer mentoring, but you must support your mentors. You have to train them and you have to give them time." P6	There is a requirement to support mentors with training and time for providing this service.
"I have several people I mentor, several trainees. I'm always open. But of course time is a limit. There's a limit to my time." P6	A willingness to mentor is there; however, there is a limit to how much one can do in one day.
"I would see a mentor as someone that would help me if I was getting stuck. So supervisors are kind of there all the time, helping guide me through training. Whereas a mentor would be something that would be like an an extra voluntary kind of process that I went through if I felt like I was kind of stuck at something or unsure, struggling with something." P1	The interest in having the option to seek help outside the regular supervision meetings.
"I think having someone separate would be beneficial as well in case you don't want to overlap that. Because they are almost putting forward their opinion on whether you should continue, whether you're able to move into the next level of training. I kind of might be a bit unsure how deep to go with things. If you think it might affect that." P1	Supervisors play a major role in the progression of training; therefore, a trainee may hesitate to share some information and struggles.

Step 4 of the Colaizzi Method of Data Analysis:

After the meanings have been formulated, the researcher clustered them into common themes that were representative of the mentoring phenomenon.

Ultimately, it is important to note that throughout these described steps, the author kept in mind the process of bracketing to prevent any potential influences of the researcher from affecting the analysis. This was done with the aid of a reflective journal where the author's presumptions and biases were noted and kept available at every step of the process.

An example of this fourth step can be described in the table below.

Table 6 –Step four of the Colaizzi Method of data analysis

Formulated Meanings	**Clustered themes**
The focus of mentoring is to allow the mentee to come guide and lead the session.	A desire for a developmental and individualistic mentoring experience.
The span of mentoring also includes nonclinical developmental focus on the individual.	
A need for more in-depth assessments and broad recognition of what a mentee is going through.	
Identified issue of finding time and space to provide mentoring.	Lack of time to engage in mentoring sessions.
There is a requirement to support mentors with training and time for providing this service.	
A willingness to mentor is there; however, there is a limit to how much a person can do in one day.	
The importance of having regular meetings with the same individual.	A good mentor-mentee relationship is based on a longitudinal trusting connection.
Having a strong foundation and trust with your mentor to build a good relationship.	
The interest in having the option to seek help outside the regular supervision meetings.	An ideal mentoring session would be voluntary and separate from supervision.
Supervisors play a major role in the progression of training; therefore, a trainee may hesitate to share some information and struggles.	

Step 5 of the Colaizzi Method of Data Analysis:

The next step of this process of data analysis was to then develop an exhaustive full and inclusive description of the phenomenon, incorporating all the themes produced from step 4.

Due to the word limit, the example of this step will not be included and will move directly to the next step.

Step 6 of the Colaizzi Method of Data Analysis:
The researcher then condenses the exhaustive description down to a short, dense statement that captures just those aspects deemed to be essential to the structure of the phenomenon.

The statement produced is as follows:

The phenomenon of mentoring in postgraduate medical training in UK is rarely experienced by trainees and supervisors alike. A lack of proper time, training and awareness were all noted as limitations to access of this service, and the experiences achieved were mainly self-sought and informal sessions outside the domain of supervision. In addition, there is a consensus regarding mentoring to be a voluntary activity that is dissimilar to the relationship with the supervisor.

Step 7 of the Colaizzi Method of Data Analysis:
Lastly, the researcher returns the fundamental structure statement as well as the themes to all participants to ask whether it captures their experience. This was done via sending an email to the participants with a copy of the results section of the dissertation so that they could read through the entire process if they wished.

By the time of the deadline of this document, seven out of the nine volunteers had replied to the email with positive feedback and comments regarding the themes, as well as confirmation that it reflected their experiences.

Additional results:

Furthermore, the author noted some minor themes that were mentioned by the individuals that were relevant to the phenomenon yet not part of a cluster of formulated meanings (but should be included for a well-rounded section).

Minor themes:
A lack of awareness of mentoring services:

- "The difficulty for me would have been like I don't know what options are available. If you'd need something extra, I wouldn't have really known where to go to seek." P1

A lack of cultural appreciation and support for the phenomenon:

- "But top corridor people don't get this. They don't get that doctors and nurses need more than just a wage packet; they need to be taken care of. And it's almost as if they see it as a sign of weakness, almost universally, that you're admitting that you have issues you want to discuss with someone else." P6

- "I think it's also got to do with training and the culture. That perhaps mentorship's not really been inculcated within within the culture. I think it's just so busy providing a service that we haven't got supervisors who are necessarily trained so they may not even know about how do we mentor a student or a doctor." P8

A lack of training for the supervisors:

- "Sometimes we agree to becoming mentors but are we actually taught on how to be an effective one or necessarily manage our time well enough to mentor our mentees?I don't think our organisation has particularly invested time and money in this and we often have to turn to courses or a degree such as this to have the skills to."

A disparity between training program levels:

- "I've always found there has been a balance whenever I've had supervision that it has sort of bordered on mentoring as well. So I think it was much better at the core level, the mentoring was much more bespoke in the sense that you're with a supervisor who you're both interested in the same specialty and you've got much more experience with that specialty. But when I compare that to sort of the foundation year supervision that was very "What do I need to do for my ARCP? Have you done your audit this year? Have you done all your work based assessments? Have you done this?' That was much more hoop jumping exercise. And I don't think you got nearly any mentoring at that stage." P9

A note about diversity:

- "Do we have enough representation with this, with mentors? They diversity of mentors and the backgrounds of mentors. I think that's something that we need to investigate because as I said earlier, the challenges of different ethnic groups or different groups of people from different places will vary." P2

A positive experience:

- "It was something at the time I really valued and something I haven't come across before and it was, and I found having a mentor really helped. Finding the appropriate person, it's helped me with what I wanted to get out of the session and someone who had the time and the ability to meet up with me. And it was it was just such a good opportunity and I wish there was more opportunities like that, especially kind of kind of formally arranged and where you could opt into a scheme and you know exactly kind of if you wanted to pursue something in particular, you could, you know, gather that and it's something I've not come across since even in other specialties." P5

Suggestions for improvement:

- "So, in terms of how more of it can be occurring, I think you can't really design it in, but what you can do is you can create the environment and have availability of the resources required

for it to naturally occur, more so. For example, there could be more time within consultant job plans to have the option to do it; and there could be more physical spaces within the work environments, you know, less shared office space or no office space. Or there could be times within the working rosters, or the shift plans…" P5

Summary of the Results

After going through all the steps of the Colaizzi method of data analysis of the transcripts, the results can be summarized as follows:

The phenomenon of mentoring in postgraduate medical training in UK is rarely experienced by trainees and supervisors alike. A lack of proper time, training and awareness were all noted as limitations to access of this service, and the experiences achieved were mainly self-sought and informal sessions outside the domain of supervision. In addition, there is a consensus regarding mentoring to be a voluntary activity that is dissimilar to the relationship with the supervisor.

However, upon further understanding and analysis of their experiences, themes were clustered describing their opinions and desires around the topic.

Theme 1: A desire for a developmental and individualistic mentoring experience.

- "Mentoring is the development of other people, it's about listening. It's about empathic, challenging, and helping people to come up with their own solutions to problems". P6
- "I just feel that the supervision meetings may not be as long; it almost feels like it's a very surface thing. You don't really go in depth to explore further, not even their training needs, like other things to help them develop as a doctor and as they gradually get up the ranks as well." "I think mentoring should be a lot more in depth, that you really touch on different aspects. I think there's lots to explore." P8

Theme 2: Lack of time to engage in mentoring sessions.

- "But the problem would be to find the time and space for that." P3
- "I think to improve culture in an organization is to offer mentoring, but you must support your mentors. You must train them, and you must give them time." P6
- "So, if we've got time factored in for mentorship, I think that may help. I think it's a very rewarding process because if you see your trainee grow and maybe one day, they could become good mentors as well. So, from my perspective, I think it's rewarding". P8

Theme 3: A good mentor-mentee relationship is based on a longitudinal trusting connection.

- "You meet them regularly, semi regularly, they'd have an understanding about who you are as an individual and that relationship that you build would be beneficial, I think to the mentoring process as opposed to having an external person that you'd have to like repeat your background all over again." P9

- "What matters is what sort of relationship and boundaries the mentor and mentee have, and if the foundation is good. Probably like totally different, maybe like therapy and if you get a good therapist, I think regardless of the distance, you can always work something or maybe do something online. If you're lucky, you can meet them physically." P2

Theme 4: An ideal mentoring session would be voluntary and separate from supervision.

- "I think it just gives a different perspective to the trainee. You know, getting your assessments done, all the clinical stuff; and on the other hand, if you've got a separate mentor, it's someone that for you gives another aspect (because sometimes you may not even get along with your supervisor, which I've come across that trainees have said that). But I think having a mentor as well that you're able to see, I think from this perspective, it's just that growing and coaching isn't it, on other non-training stuff, I think would be helpful." P8
- "I think having someone separate would be beneficial as well in case you don't want to overlap that. Because they are almost putting forward their opinion on whether you should continue, whether you're able to move into the next level of training. I kind of might be a bit unsure how deep to go with things. If you think it might affect that." P1
- "No, I don't like that. Yeah, you know that you then have a leg in both camps. So you're you're reporting to someone who has power over you. And that power imbalance, I think stymies the conversation. That, as I said, if everyone was trained to understand what mentoring was and you could give them some skills, these are good listening skills so everyone would benefit from those. But I wouldn't want my trainee to be mentored by the supervisor. No, just doesn't feel right and I don't think trainees would feel right." P6

Minor themes:

- A lack of awareness of mentoring services.
- A lack of cultural appreciation and support for the phenomenon.
- A lack of training for the supervisors.
- A disparity between training program levels.
- A note about diversity.
- A positive experience.
- Suggestions for improvement.

Chapter 4 – Discussion

Summary of Key Findings after Data Analysis

Fundamental statement: The phenomenon of mentoring in postgraduate medical training in UK is rarely experienced by trainees and supervisors alike. A lack of proper time, training and awareness were all noted as limitations to access of this service, and the experiences achieved were mainly self-sought and informal sessions outside the domain of supervision. In addition, there is a consensus regarding mentoring to be a voluntary activity that is dissimilar to the relationship with the supervisor.

However, upon further understanding and analysis of their experiences, themes were clustered describing their opinions and desires around the topic.

Table 7 - Summary of Major Clustered Themes after Data Analysis

Clustered Themes	**E.g.: Formulated Meanings**	**E.g.: Significant Statements**
Theme 1: A desire for a developmental and individualistic mentoring experience.	The focus of mentoring is to allow the mentee to come guide and lead the session.	"I think it will be very helpful because mentoring will encourage self reflection. The trainees will open up." P3
Theme 2: Lack of time to engage in mentoring sessions.	Identified issue of finding time and space to provide mentoring.	"I think it's the most powerful thing. If people are given time to do it, I think." P6
Theme 3: A good mentor-mentee relationship is based on a longitudinal trusting connection.	Having a strong foundation and trust with your mentor to build a good relationship.	"It's really nice to feel like someone's got your back in this world where we're working really hard and it's just really nice to know that you've got someone that will support you and help you." P4
Theme 4: An ideal mentoring session would be voluntary and separate from supervision.	Supervisors play a major role in the progression of training; therefore, a trainee may hesitate to share some information and struggles.	"Whereas a mentor would be something that would be like an an extra voluntary kind of process that I went through if I felt like I was kind of stuck at something or unsure, struggling with something." P1

Discussion of Categories and Themes in Comparison to the Literature

As this is a descriptive phenomenological study, all the participants' data were pooled together for the process of data analysis and there was no aim to compare the experiences of the trainees versus the supervisors; rather, it was important to shed light on their common thoughts about this phenomenon in the United Kingdom.

Based on the findings, it is crucial to not only explain and interpret the results, but also compare them to the existing literature. This will be structured in the same way that the themes were developed.

Despite previous literature that highlighted trainees point of views regarding educational supervision in postgraduate medical education in the UK (Patel, 2016). No studies were found to have a qualitative analysis of the phenomenon of mentoring in postgraduate medical training.

The fundamental statement that was formulated at the end of the data analysis process reflected a lack of mentoring within the domain of supervision in postgraduate medical training in the UK. Many participants were unable to describe a mentoring experience and those who did expressed situations that were both informal and mainly self-sought by the individuals.

Due to this, many of the clustered themes that came out of this study were created based off interview discussions that were focused on the volunteers' ideal wishes for mentoring sessions, and their suggestions for promoting a better environment that would allow mentoring to occur more in the UK.

Theme 1: A desire for a developmental and individualistic mentoring experience.
The first theme that emerged was that of a desire from the individuals to receive a more personalized support to their development in their training. This they hoped could be achieved in the case of having a great mentoring experience. According to the literature, most participants believed mentoring programs to be beneficial and noted that individualized relationships and meeting content were key to the program's success (Patel, Windish, and Hay, 2020).

However, after interviewing trainees and supervisors in the UK, multiple participants, including participant eight felt the following "I just feel that the supervision meetings may not be as long; it almost feels like it's a very surface thing. You don't really go in depth to explore further, not even their training needs, like other things to help them develop as a doctor and as they gradually get up the ranks as well." "I think mentoring should be a lot more in depth, that you really touch on different aspects. I think there's lots to explore." And despite the lack of individuality, the participants still had a desire for a more in-depth developmental experience with their supervisor. "I think it's more sort of in depth than a supervisory role in that you see them through specific tasks that may not be clinically related. It could be nonclinical related (leadership, management). So, more, what of the hidden sort of curriculum, I suppose. Just watching them grow." - participant eight.

Therefore, what is reflected in the literature may not necessarily be occurring in the NHS, but the strive for that experience and the desires of the research participants is consistent with the literature on the topic.

Theme 2: Lack of time to engage in mentoring sessions.
The second theme is also consistent with the literature review in that unfortunately, despite the benefits, the mentoring task of the supervisor is often being overlooked during the trainees' evaluation meeting. The issue of time was identified as one of the main reasons for this lack of focus on mentoring during the sessions as described in the article by Mellon and Murdoch-Eaton (2015). Participant three in this interview study expressed "But the problem would be to find the time and space for that," when asked about their experience of mentoring within the formal trainee-supervision meetings that occur throughout their education.

Participant six suggested "I think to improve culture in an organization is to offer mentoring, but you must support your mentors. You must train them, and you must give them time." Also acknowledging the struggles faced when trying to apply the requirements of a supervisor as well as adding mentoring (as suggested by the roles of the supervisor)(Gold Guide, 2020) and (Kilminster et al., 2007).

Therefore, the lack of a formalized mentoring session, and the reliability of the supervision meetings as the time for the consultants to provide support outside the domains of clinical progress remains a challenge in the experience of mentoring in postgraduate medical training.

Theme 3: A good mentor-mentee relationship is based on a longitudinal trusting connection.
Moving to the third clustered theme, several of the participants have described that a good mentor-mentor relationship should be based on a mutually agreed framework between both parties and a continuous connection to their meetings.

Participant four said "It's really nice to feel like someone's got your back in this world where we're working really hard and it's just really, really nice to know that you've got someone that will support you and help you, like, recognize when you need to pull back a little bit, but also then help push you forward."

And participant two similarly expressed "What matters is what sort of relationship and boundaries the mentor and mentee have, and if the foundation is good. Probably like totally different, maybe like therapy and if you get a good therapist, I think regardless of the distance, you can always work something or maybe do something online. If you're lucky, you can meet them physically."

Similarly, the article by Vieira et al. (2021) discusses the possibility of exploring mentoring within the radiology residency training programs similarly to that which occurred in medical schools. The paper

focuses on the universal rules for establishing a successful mentoring relationship which include creating a relationship of trust and confidentiality, clearly defining roles and responsibilities, establishing short- and long-term goals, using open and supportive communication, and collaboratively solving problems.

Hence, the experience of the interviewees and their wishes are not in line with what is occurring in postgraduate medical training, but on a positive note the expression of these desires is something that can be worked on to try to improve future educational relationships.

Theme 4: An ideal mentoring session would be voluntary and separate from supervision.
The fourth theme was first mentioned by participant one when they expressed "I think having someone separate would be beneficial as well in case you don't want to overlap that. Because they are almost putting forward their opinion on whether you should continue, whether you're able to move into the next level of training. I kind of might be a bit unsure how deep to go with things. If you think it might affect that."

Furthermore, when comparing it with the literature, we can look at a study done in Sheffield in 2015 where researchers tried to see if there is a difference between the supervisor and the mentor in a pediatric training program (Mellon and Murdoch-Eaton, 2015). The review argued that despite an overlap in priorities, it may be valuable to divide the activities of the supervisor and look at mentoring as an opportunity to improve their trainees in the program. And in the response article, it was believed that the trainee may indeed need, or benefit greatly from, having a separate mentor with time to focus on that aspect of personal development and self-discovery outside the norms of career focused supervision (Brightwell and Eisen, 2015).

In addition, as suggested by the literature the supervisor's role as a performance evaluator can lead to some challenges. When trying to be a mentor and a friend, potential conflicts may come up between the roles of mentor or supervisor (Mellon and Murdoch-Eaton, 2015). Consequently, they may find themselves struggling in wanting to help their student instead of ending up having to negatively evaluate them so they may choose to disregard the mentoring aspect in the first place. On the other hand, the trainees might also be at a loss whether to bring up certain personal issues to this kind of supervisor, at the risk of it affecting their assessment and progress in their career.

This in fact was like the experience of participant six of this research study when they mention "No, I don't like that. Yeah, you know that you then have a leg in both camps. So you're you're reporting to someone who has power over you. And that power imbalance, I think stymies the conversation. That, as I said, if everyone was trained to understand what mentoring was and you could give them some skills, these are good listening skills so everyone would benefit from those. But I wouldn't want my trainee to be mentored by the supervisor. No, just doesn't feel right and I don't think trainees would feel right." In their discussion about separating supervision from mentoring.

Moreover, another interesting article by Vieira et al. (2021) highlights that mentee's who choose their own mentor, instead of getting one assigned, reported greater satisfaction, communicated more with their mentor, and reported greater aid in growth and development (Vieira et al., 2021). They also suggest the idea of having multiple mentors, not necessarily from the same field, who can help fulfill different needs for the trainees on a personal basis.

Consequently, this theme is strongly supported by the literature, and thus it might be noteworthy for future research to explore the separation of the roles and the effect it might have on the development of trainees in the progression of their career.

Discussion of the Minor Themes in Comparison to the Literature:

Furthermore, it is important to mention the minor themes that came out during the process of data analysis.

Upon reflection of the results following the data analysis, the author realized that there are some ideas that were mentioned by the individuals that could not be clustered in with the major themes. However, it felt important to mention as the sample size is small and the experience of one individual, despite not being common, may relate to other trainees or supervisors across the country. In addition, some of these themes can also be correlated with the literature.

The minor themes that were noted will be explored below:

A lack of awareness of mentoring services:

Participant one mentioned the following, "The difficulty for me would have been like I don't know what options are available. If you'd need something extra, I wouldn't have really known where to go to seek."

When hearing this statement, the author noted that what may be commonly defined in the training as supervision, may not have the same value for mentoring. Multiple articles in the literature review were focused on an establishing a new mentoring scheme or intervening with a new program for trainees or residents (depending on the country), to then collect and analyze data on how these programs improved their success or experience. This was seen for example in the article by Patel, Windish, and Hay (2020), as well as Wong et al. (2021). Moreover, Souba's description of mentoring benefits (1999) and Sinclair et al.'s review of the available literature (2014) did not demonstrate the availability of such mentoring programs throughout the different training programs or where to access this service.

Ultimately, it may not be surprising that the same lack of awareness could be occurring in the NHS, or more specifically in certain training departments, and it may be crucial then to investigate this theme

further (either in a follow up question with the other participants, or on the field in the different Trusts across the country).

A lack of cultural appreciation and support for the phenomenon:

A few of the volunteers brought up the cultural aspect of mentoring and supervision in the NHS. Some of them felt that there was a lack of support from the higher up administrative professionals, while others commented on the lack of support in general on the day-to-day level.

Participant six stated "But top corridor people don't get this. They don't get that doctors and nurses need more than just a wage packet; they need to be taken care of. And it's almost as if they see it as a sign of weakness, almost universally, that you're admitting that you have issues you want to discuss with someone else." In addition to the comments from participant eight who said "I think it's also got to do with training and the culture. That perhaps mentorship's not really been inculcated within the culture."

These statements have contradicted the goals and statements set out by the Gold Guide (2020) and the COPMeD descriptions for the importance of mentoring and supervision. According to Steven et al. (2008), the benefits span across three main areas: professional practice, personal well-being, and development; therefore, not only affecting one's professional career but also improving their personal life. Moreover, further analysis of that study described a concept in that when mentoring benefits one area, it will also end up benefitting other areas as well because the doctors themselves would be much more satisfied with their work (Steven et al., 2008). The strength of this article also comes from the fact that it was done over six different programs in the UK which, in turn, highlights the importance of the mentor role in a supervisor position across the board. However, it seems that the literature is not in fact being reflected accordingly in the experience of the supervisors and trainees (especially those that were interviewed for this project).

A lack of training for the supervisors:

According to the literature, the supervisors that are selected to become educational or clinical supervisors must undergo specific training to be able to be considered ready for undertaking this vital role. Their preparation involves instruction on proper ways of educational assessment and feedback to oversee the improvement of the trainee as well as guide them during a training placement and provide support for their careers (Gold Guide, 2020) and (Kilminster et al., 2007).

Participant 8 mentioned "I think it's just so busy providing a service that we haven't got supervisors who are necessarily trained so they may not even know about how we mentor a student or a doctor." Not only did they mention the lack of cultural appreciation which fits with the minor theme above, but they also noted a lack of training for the supervisors in the job of mentoring. When the author asked them to expand on this topic, they explained that supervisors usually have some training courses that they must complete when choosing to undertake the role of educational supervisor; however, there is

no such course for the mentoring topic (the focus is mainly on the necessary feedback and remediation regarding procedural skills and clinical competencies).

Another volunteered also commented in the feedback step of the data analysis to the author: "Sometimes we agree to becoming mentors but are we taught on how to be an effective one or necessarily manage our time well enough to mentor our mentees? I don't think our organisation has particularly invested time and money in this and we often have to turn to courses or a degree such as this to have the skills to." Referring to the need for them to seek out their own training to become better mentors for the trainees they oversee.

Thus, even if they wanted to help, supervisors may not be getting the support and skills they need to participate in the phenomenon.

A disparity between training program levels:

Another important theme that was brought up by a few individuals was the disparity between programs in terms of the supervision that is provided to them. Some individuals mention that they have a new educational supervisor every year (for example the Obstetrics and Gynecology department as well as the foundation program) and they might see them only four times for fifteen minutes at a time. This lack of continuity prevents them from being able to develop a proper relationship with their supervisor.

However, other specialty programs have a stronger mentoring/supervision relationship as participant 9 mentions "I've always found there has been a balance whenever I've had supervision that it has sort of bordered on mentoring as well. So I think it was much better at the core level, the mentoring was much more bespoke in the sense that you're with a supervisor who you're both interested in the same specialty and you've got much more experience with that specialty." Thus, lending to completely different experiences across specialties. Nonetheless, this project did not have a larger number of participants to explore this side of the phenomenon in more depth and variety.

Additionally, there have not been many studies in the literature that focus on discussing this disparity in more details, and despite that the individuals in this project all came from different training programs and levels, the seemed to be a consensus on the lack of mentoring regardless of the specialty (except for the positive mentoring in the Anesthetics department for the core level of training for participant 9).

A note about diversity:

Equality and diversity have become a vital topic in the field of higher education and the healthcare professions field. During this research study, there were no direct questions relating to this conversation as the purpose of the author was to not influence the direction of the discussion.

In the literature around mentoring and diversity, a couple of studies came to light expressing the disadvantages that some students may face.

In the systematic review of Bonifacino et al. (2021), final recommendations from their results section included the importance of institutional support for diversity, tailoring programs to local needs and resources, training mentors, and utilizing both underrepresented and non-underrepresented mentors. This recent article was done following the rise in the diversity of the physician workforce in the USA, and an alert regarding a lack of proper representation in the mentoring field.

Moreover, in the field of nursing and physical therapists, it was also noted that minoritized students reported experiencing social isolation and discrimination and cited the lack of faculty representation as barriers to their success (Naidoo et al., 2022).

Despite the small sample size, one of the participants did bring up this conversation and so it was important to address it in this discussion.
This quote came from participant 2, "Do we have enough representation with this, with mentors? They diversity of mentors and the backgrounds of mentors. I think that's something that we need to investigate because as I said earlier, the challenges of different ethnic groups or different groups of people from different places will vary." The concept surrounding a lack of diversity in the available mentors or even supervisors in the postgraduate training field had a negative impact on the feelings of inclusion that the participant needs to have in their profession. Having come from an international background, they felt that they faced challenges that other individuals may not have faced in their career and believed that a mentor (who may have gone through a similar situation) would have been helpful.

Therefore, to avoid the risk of isolation, discrimination, or even simply a lack of providing the appropriate tailored support for the diverse trainees in the UK, it is important to bring up this conversation to all the different departments and consider making an active change in the matching of trainees to supervisors. It may seem minor, but this small effort could result in a huge impact to those few individuals, and thus even impact their future.

<u>A positive experience:</u>
Another minor theme that came out of the interview process is the idea that there actually was a positive mentoring experience that happened within the domain of supervision.

Participant five was one of the only individuals who described an experience with the phenomenon of mentoring during supervision meetings. Having found a supervisor that not only cared about the tick-box exercises that are a requirement to progress to the next stage of training, but also someone who noticed when their trainee was feeling off, asked about their day, and actively helped them to develop their portfolio outside the regular required activities. This same individual however, noted that "I got

lucky, none of my other colleagues got that same experience". This statement supports the claim of Stamm and Buddeberg-Fischer (2011), that advertised the positive impact mentorship had longitudinally on career growth and personal motivation despite the lack of evidence of a formal mentoring program being available.

It was important to mention this experience because even though it is rare, the author felt it was necessary to give credit to the supervisors, despite being a minority, that do take the time to include mentoring in their supervision meetings. In this case it can be reflected to show that what is set out in the Gold Guide (2020) to achieve, succeeded for this individual.

Suggestions for improvement:

And finally, the last concept that was noted in the results chapter were the suggestions for improvement from interviewed volunteers. Without inquiring, many of the individuals ended the meeting with the author by suggesting ideas they felt could improve the phenomenon.

These included "For example, there could be more time within consultant job plans to have the option to do it; and there could be more physical spaces within the work environments, less or no shared office space. Or there could be set times within the working rosters …" a quote noted by participant five. As a final note, many of these changes could be implemented, but it goes back to the Trusts and those governing the domain of supervision and mentoring.

Summary of Discussion and Questions to Consider

The fundamental statement that was formulated at the end of the data analysis process reflected a lack of mentoring within the domain of supervision in postgraduate medical training in the UK. Many participants were unable to describe a mentoring experience and those who did expressed situations that were both informal and mainly self-sought by the individuals.

Due to this, many of the clustered themes that came out of this study were created based off interview discussions that were focused on the volunteers' ideal wishes for mentoring sessions, and their suggestions for promoting a better environment that would allow mentoring to occur more in the UK. The discussion looked at the interpretation of four major themes and seven minor themes in comparison to the known literature.

In summary, there are many similarities in the major themes compared to the literature, in that they have shown how mentoring can benefit trainees and supervisors in the NHS postgraduate medical training programs in the UK in comparison to the desires and challenges that the participants in this study expressed in their interviews about their actual experiences.

As for the minor themes, several of them had strong resemblances to the literature while others proposed new concepts that would be interesting to investigate in the future.

Furthermore, if most individuals did not experience proper mentoring, one might want to ask: what are the reasons behind this? Is the phenomenon not experienced enough?
What can be done to improve its organization into training? Is there hope for a system-wide change in the NHS? And how can the field of medical education contribute further to this?

Maybe the educational systems must consider these considering what has transpired from this discussion.

Strengths and Limitations of the Study

One of the key strengths for this project was the chance to improve the validity of the results through the last step of the Colaizzi method of data analysis. Seeking verification of the fundamental structure and themes from the research participants helped increase the authenticity of the process and confirm that the process of data analysis was done correctly and accurately represented the experiences of the individuals.

Despite this however, and despite the concept of bracketing that was meant to separate the author's preconceptions on the topic, one cannot truly remove their unconscious thoughts which may add bias to the process of the study. This was minimized with the help of revision of the research supervisor that was able to oversee the results; however, it would be ideal in the future to have another researcher look over the data to decrease the probability of analysis bias.

Other than having only one researcher, the sample size criteria limited the volunteers to being from one institution, one geographical area and on one university course which all also limit the variety of data that was collected in this study.

The author also acknowledges the time constraints of completing the study alongside the organized coursework and the strive to improve the work to perfection could still be possible.

To note that there is no funding for this research project.

In addition, no conflict of interest has been declared by the author or the research supervisor.

Conclusions for this Project

In conclusion, the aim of this study was to better understand the phenomenon of mentoring that occurs in UK postgraduate medical training programs by describing it from the lived experiences of trainees and supervisors. Having these different perspectives was intended to decrease the gap between theory and experience and use the results to reassess the way in which this phenomenon is

happening across the country; and thus, hopefully shed light on what is missing and start a conversation to find out what more can be done in the field of postgraduate medical training.

Suggestions for Future Research

Despite the development of this research project, it would be interesting to advance the knowledge in this field even further.

First, to add on to this study, a follow up interview can be suggested where the author develops a new questionnaire that further explores the experiences of each participant. This would improve the overall understanding of the phenomenon and allow time for the volunteer to expand on the ideas they brought up in the first meeting.

Another idea would be to broaden the sample size in both number and range. Despite reaching the target number of participants, the individuals were all ones who were interested in medical education (being on or part of the MMedSci Medical Education course), and within the East Midlands region of the United Kingdom. In addition to the potential of bias, the range of experiences may vary greatly based on location or even the various training programs.

Furthermore, it would be highly intriguing to potentially do a mixed methods study with the purpose of integrating mentoring into the training program or the supervisor meetings for several months, followed by interviews or focus group discussions regarding their experience afterwards.

References

1. Bonifacino, E. et al. (2021) 'Mentorship of Underrepresented Physicians and Trainees in Academic Medicine: A Systematic Review', Journal of general internal medicine : JGIM, 36(4), pp. 1023–1034. doi:10.1007/s11606-020-06478-7.
2. Brightwell, A. and Eisen, S. (2015) 'Response to 'Supervisor or mentor: is there a difference? Implications for paediatric practice'', Archives of disease in childhood, 100(9), pp. 901–901. doi:10.1136/archdischild-2015-309062.
3. Chappell, R., Gold Guide - 9th Edition - Conference of Postgraduate Medical deans. *COPMeD*. Available at: https://www.copmed.org.uk/gold-guide/gold-guide-9th-edition.
4. Challis, M., Williams, J. and Batstone, G. (1998) 'Supporting Pre-registration House Officers: the needs of educational supervisors of the first phase of postgraduate medical education', Medical education, 32(2), pp. 177–180. doi:10.1046/j.1365-2923.1998.00209.x.
5. Champion, Caitlin, MD et al. (2015) 'Providing mentorship support to general surgery residents: a model for structured group facilitation', Canadian Journal of Surgery, 58(6), pp. 372–373. doi:10.1503/cjs.004315.
6. Clark, P. et al. (2006) 'Intending to be a supervisor, mentor, or coach? Which, what for and why?', Education for primary care, 17(2), pp. 109–116. doi:10.1080/14739879.2006.11864047.
7. Cheong, C.W.S. et al. (2019) 'A systematic scoping review of ethical issues in mentoring in internal medicine, family medicine and academic medicine', Advances in health sciences education : theory and practice, 25(2), pp. 415–439. doi:10.1007/s10459-019-09934-0.
8. Connelly, L.M. (2016) 'Trustworthiness in qualitative research', Medsurg nursing, 25(6), pp. 435–436.
9. Connor, M. and Pokora, J. (2012) Coaching and Mentoring at Work. Berkshire: McGraw-Hill Education.
10. Cooper, N. and Forrest, K. (2009) Essential guide to educational supervision in postgraduate medical education. 1st ed. Hoboken: Wiley.
11. Coppin, R. and Fisher, G. (2015) 'An exploratory study of career, psychosocial, and clinical mentoring of podiatrists', Australian journal of career development, 24(2), pp. 93–104. doi:10.1177/1038416215578544.
12. Donaldson, I. (2019) 'From mentor to supervisor and assessor: changes in pre-registration programmes', British journal of nursing (Mark Allen Publishing), 28(1), pp. 64–64. doi:10.12968/bjon.2019.28.1.64.
13. Kalén, S., Ponzer, S. and Silén, C. (2011) 'The core of mentorship: medical students' experiences of one-to-one mentoring in a clinical environment', Advances in health sciences education : theory and practice, 17(3), pp. 389–401. doi:10.1007/s10459-011-9317-0.

14. Kilminster, S. et al. (2007) 'AMEE Guide No. 27: Effective educational and clinical supervision', Medical teacher, 29(1), pp. 2–19. doi: 10.1080/01421590701210907.
15. Launer, J. (2010) 'Supervision as therapy', Postgraduate medical journal, 86(1021), pp. 686–686. doi:10.1136/pgmj.2010.109942.
16. Launer, J. and Hogarth, S. (2011) 'What is good supervision?', Postgraduate medical journal, 87(1030), pp. 573–574. doi:10.1136/postgradmedj-2011-130277.
17. Lee, H.-J. and Ahn, M. (2021) 'Consensual qualitative research on the internship experience and development of career identity of Korean doctors', BMC medical education, 21(1), pp. 12–12. doi:10.1186/s12909-020-02451-4.
18. Mellon, A. and Murdoch-Eaton, D. (2015) 'Supervisor or mentor: is there a difference? Implications for paediatric practice', Archives of disease in childhood, 100(9), pp. 873–878. doi: 10.1136/archdischild-2014-306834.
19. Morrow, R., Rodriguez, A. and King, N. (2015). Colaizzi's descriptive phenomenological method. The Psychologist, 28(8), 643-644.
20. Naidoo, K. et al. (2022) 'Virtual Faculty and Peer Mentoring to Promote Social Belonging among Minoritized Physical Therapist and Nursing Students', Healthcare (Basel), 10(3), p. 416. doi:10.3390/healthcare10030416.
21. Neubauer, B.E., Witkop, C.T. and Varpio, L. (2019) 'How phenomenology can help us learn from the experiences of others', Perspectives on medical education, 8(2), pp. 90–97. doi:10.1007/s40037-019-0509-2.
22. O'Brien, M. et al. (2006) 'Exploring the views of second-year Foundation Programme doctors and their educational supervisors during a deanery-wide pilot Foundation Programme', Postgraduate medical journal, 82(974), pp. 813–816. doi:10.1136/pgmj.2006.049676.
23. Ortega, G. et al. (2018) 'Preparing for an Academic Career: The Significance of Mentoring', MedEdPORTAL, 14, pp. 10690–10690. doi:10.15766/mep_2374-8265.10690.
24. Patel, D., Windish, D. and Hay, S. (2020) 'A Mentor, Advisor, and Coach (MAC) Program to Enhance the Resident and Mentor Experience', MedEdPORTAL, 16, pp. 11005–11005. doi:10.15766/mep_2374-8265.11005.
25. Patel, P. (2016) 'An evaluation of the current patterns and practices of educational supervision in postgraduate medical education in the UK', Perspectives on medical education, 5(4), pp. 205–214. doi:10.1007/s40037-016-0280-6.
26. Patton, C.M. (2020) 'Phenomenology for the Holistic Nurse Researcher: Underpinnings of Descriptive and Interpretive Traditions', Journal of holistic nursing, 38(3), pp. 278–286. doi:10.1177/0898010119882155.
27. Roth, W.-M. and von Unger, H. (2018) 'Current perspectives on research ethics in qualitative research', Forum, qualitative social research, 19(3). doi:10.17169/fqs-19.3.3155.

28. SAGE (2019) 'Analyzing Interview Transcripts of a Phenomenological Study on the Cultural Immersion Experiences of Graduate Counselling Students', SAGE publications: SAGE Research Methods Datasets.
29. Sinclair, P. et al. (2014) 'Mentoring during surgical training: Consensus recommendations for mentoring programmes from the Association of Surgeons in Training', International journal of surgery (London, England), 12, pp. S5–S8. doi:10.1016/j.ijsu.2014.08.395.
30. Souba, W.W. (1999) 'Mentoring Young Academic Surgeons, Our Most Precious Asset', The Journal of surgical research, 82(2), pp. 113–120. doi:10.1006/jsre.1999.5596.
31. Stamm, M. and Buddeberg-Fischer, B. (2011) 'The impact of mentoring during postgraduate training on doctors' career success', medical education. Received 30 March 2010; editorial comments to authors 12 May 2010, 27 July 2010; accepted for publication 25 August 2010, 45(5), pp. 488–496. doi:10.1111/j.1365-2923.2010.03857.x.
32. Steven, A., Oxley, J. and Fleming, W. (2008) 'Mentoring for NHS doctors: perceived benefits across the personal–professional interface', Journal of the Royal Society of Medicine, 101(11), pp. 552–557. doi:10.1258/jrsm.2008.080153.
33. Swanwick, T., Forrest, K. and O'Brien, B.C. (2019) Understanding Medical Education. Newark: John Wiley & Sons, Incorporated.
34. Tavakol, M. and Sandars, J. (2014) 'Quantitative and qualitative methods in medical education research: AMEE Guide No 90: Part I', Medical teacher, 36(9), pp. 746–756. doi:10.3109/0142159X.2014.915298.
35. Tavakol, M. and Sandars, J. (2014) 'Quantitative and qualitative methods in medical education research: AMEE Guide No 90: Part II', Medical teacher, 36(10), pp. 838–848. doi:10.3109/0142159X.2014.915297.
36. The Gold Guide (2020) 'A reference guide for postgraduate foundation and specialty training in the UK: incorporating Purple Guide for foundation training version 2019, 8th edition'.
37. Tufford, L. and Newman, P. (2012) 'Bracketing in Qualitative Research', Qualitative social work : QSW : research and practice, 11(1), pp. 80–96. doi:10.1177/1473325010368316.
38. Urcia, I.A. (2021) 'Comparisons of Adaptations in Grounded Theory and Phenomenology: Selecting the Specific Qualitative Research Methodology', International journal of qualitative methods, 20, p. 160940692110454. doi:10.1177/16094069211045474.
39. Vieira, A. et al. (2021) 'Mentoring in radiology: An asset worth exploring', European journal of radiology, pp. 110133–110133. doi:10.1016/j.ejrad.2021.110133.
40. Whitehurst, J.L. and Rowlands, J. (2016) 'Helping palliative care healthcare professionals get the most out of mentoring in a low-income country: a qualitative study', BMC palliative care, 15(1), pp. 90–90. doi:10.1186/s12904-016-0164-x.
41. Wong, R.K. et al. (2021) 'Clinical research mentorship programme (CRMP) for radiation oncology residents in Africa-building capacity through mentoring', Ecancermedicalscience, 15, pp. 1210–1210. doi:10.3332/ecancer.2021.1210.

Appendixes

Appendix 1 – Research Announcement

University of Nottingham
UK | CHINA | MALAYSIA

FACULTY OF MEDICINE & HEALTH SCIENCES
RESEARCH ETHICS COMMITTEE

Proposed Invitation Announcement

Proposed invitation to be posted on Moodle Form

Dear colleagues,

Are you a trainee or supervisor in postgraduate medical training in the UK?

Are you willing to talk to me about your experience of mentoring and supervision in UK PG training?

This is for a descriptive phenomenological research project for my Masters Dissertation for the MMedSci Medical Education course.

The interview should last around 30 minutes and can be done over MS Teams or on campus.

If interested or would like more information, please email me. Your participation is highly appreciated.

Thank you.

Appendix 2 – Participant Information Sheet

PARTICIPANT INFORMATION SHEET

Research Ethics Reference: FMHS 455-0122
Version 2.0 Date: 01/03/2022

We would like to invite you to take part in a research study. Before you decide, it is important for you to understand why the research is being done and what it will involve. One of our team will go through the information sheet with you and answer any questions you have. Please take time to read this carefully and discuss it with others if you wish. Ask us anything that is not clear.

What is the purpose of the research?
The goal of this study is to better understand the phenomenon of supervision and mentorship in the UK postgraduate medical training programs and describe the way in which mentoring is experienced.

Why have I been invited to take part?
You have been invited to take part in this research because you are, or have been, a trainee or supervisor in the postgraduate medical training program in the United Kingdom. In addition, you are a current or past scholar on the MMedSci Medical Education course at the University of Nottingham.

Inclusion criteria (all the below must apply):
1. Current or past scholar on the MMedSci in Medical Education program.
2. Participant is currently, or was, a trainee or a supervisor in UK NHS postgraduate medical training.

Exclusion criteria:
1. Current or past scholar on the MMedSci in Medical Education program; however, does not currently work in the NHS or work in different healthcare fields in the NHS other than medicine.
2. Current or past scholar on the MMedSci in Medical Education program; however, is still in the undergraduate medical training program.

Do I have to take part?
It is up to you to decide if you want to take part in this research. We will describe the study and go through this information sheet with you to answer any questions you may have. If you agree to participate, we will ask you to sign a consent form and will give you a copy to keep. However, you would still be free to withdraw from the study at any time, without giving a reason, simply let the research team know. If you are a student at the University of Nottingham, there would be no disadvantages to your study or to you personally if you decide not to take part in this study, or if you decide to withdraw at any point.

1. What will happen to me if I take part?

If you agree to take part in this study, this sheet as well as a consent form will be provided and explained to you.

A researcher will answer any questions you have and if you are still happy to take part, then you will then be asked to sign a consent form.

Once the consent form is signed and any questions you have been answered, the process of data collection will begin.

This involves one interview meeting that will occur between you and the primary investigator where you will be asked a series of informal questions to understand your experience about the topic. The

meeting can occur either face-to-face on the University of Nottingham campus, or online over MS Teams depending on your preference and availability.

This should take approximately 30 minutes of your time. The interview will be audio recorded and password protected for the purpose of transcription and data analysis.

After the data analysis part of the study, you will be asked to check the researcher's described themes to confirm if they are appropriate.

2. Are there any risks in taking part?

The interview questions will ask you to share your experience with regards to mentoring and supervision in postgraduate medical training. As this is a personal topic, some people may feel sensitive or distress about certain encounters they may share.

To reduce any potential risks, you will not be expected to discuss anything you don't want to share. Signposting to mental health resources will be available if necessary.

3. Are there any benefits in taking part?

There will be no direct benefit to you from taking part in this research, but your contribution may add to the literature and possibly enhance the focus on mentoring and supervision in postgraduate medical training and education.

4. Will my time/travel costs be reimbursed?

Participants will not receive an inconvenience allowance to participate in the study. If the participant is unable to attend a face-to-face meeting due to travel expenses, or other, the meeting can be arranged over MS Teams.

5. What happens to the data provided?

We will use UoN-provided storage for our working data. UoN licenses Microsoft Teams, allowing for secure and controlled sharing of data among the research team. Microsoft Teams encrypts data both in transit and at rest and is approved against the University's Handling Restricted Data Policy. The service provides several layers of automatic back up and, in a disaster scenario, files can be recovered. Access to data stored in MS Teams is via secure log-in with multi-factor authentication.
Your name and any information about you will not be disclosed outside the study centre.

Personal data will be collected during this project, and the project has considered ethical and legal implications in its data storage, as well as appropriate security of personal data. All participants will agree to data collection and to long-term retention, archiving, and sharing of their anonymised data.

Participants will be informed that they can withdraw their participation at any stage during or after the observations. As we will be working with personal data, we will ensure that we comply with the Data Protection Act 2018, including GDPR requirements.

The researcher and supervisor will have access to all collected data.
We would like your permission to use fully anonymised direct quotes in research publications.

We would like your permission to use anonymised data in future studies, and to share our research data (e.g., in online databases) with other researchers in other Universities and organisations both inside and outside the European Union. This would be used for research in health and social care. Sharing research data is important to allow peer scrutiny, re-use (and therefore avoiding duplication of research) and to understand the bigger picture in particular areas of research. All personal information

that could identify you will be removed or changed before information is shared with other researchers or results are made public.

6. What will happen if I don't want to carry on with the study?

Even after you have signed the consent form, you are free to withdraw from the study at any time without giving any reason. Any personal data as well as transcripts and recordings will be destroyed.

7. Who will know that I am taking part in this research?

Data will be used for research purposes only and in accordance with the General Data Protection Regulations. Electronic storage devices will be encrypted while transferring and saving of all sensitive data generated during the research. All such data are kept on password-protected databases sitting on a restricted access computer system and any paper information (such as your consent form, contact details and any research questionnaires) would be stored safely in lockable cabinets in a swipe-card secured building and would only be accessed by the research team.
Under UK Data Protection laws the University is the Data Controller (legally responsible for the data security), and the Chief Investigator of this study (named above) is the Data Custodian (manages access to the data).

You can find out more about how we use your personal information and to read our privacy notice at:

https://www.nottingham.ac.uk/utilities/privacy.aspx/

Designated individuals of the University of Nottingham may be given access to data for monitoring and/or audit of the study to ensure we are complying with guidelines.

Anything you say during the interview will be kept confidential, unless you reveal something of concern that may put yourself or anyone else at risk. It will then be necessary to report to the appropriate persons.

8. What will happen to the results of the research?

The research will be written up as dissertation for the degree of master's in medical education course at the University of Nottingham.

The research may be published in a medical education journal.

9. Who has reviewed this study?

All research involving people is looked at by an independent group of people, called a Research Ethics Committee, to protect your interests.

10. Who is organising and funding the research?

This study is being coordinated and funded by the University of Nottingham.

11. What if there is a problem?

If you have a concern about any aspect of this project, please speak to the researcher Mary Catherine Mina or the Supervisor Dr Rebecca McConnell, who will do their best to answer your query. The researcher should acknowledge your concern and give you an indication of how she intends to deal with it. If you remain unhappy and wish to complain formally, you can do this by contacting the FMHS Research Ethics Committee Administrator, Faculty Hub, Medicine and Health Sciences, E41, E Floor, Medical School, Queen's Medical Centre Campus, Nottingham University Hospitals, Nottingham, NG7 2UH or via E-mail: FMHS-ResearchEthics@nottingham.ac.uk.
Ref no: FMHS 455-0122

Appendix 3 – Consent Form

Participants Consent Form
Final version 1.0: 31.01.2022

Title of Study: A phenomenological approach to supervision and mentorship in UK postgraduate medical training.

REC ref: FMHS 445-0122

Name of Researchers: 20407875

Name of Participant: Please initial box

1. I confirm that I have read and understand the information sheet version number 1 dated 31.01.2022 for the above study which is attached and have had the opportunity to ask questions. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason and without disadvantage. ☐
3. I understand that relevant sections of my data collected in the study may be looked at by the research group and by other responsible individuals for monitoring and audit purposes. I give permission for these individuals to have access to these records and to collect, store, analyse and publish information obtained from my participation in this study. I understand that my personal details will be kept confidential. ☐
4. I understand that the interview will be audio recorded using an automated transcription service and that anonymous direct quotes from the interview may be used in the study reports. ☐
5. I understand that I will be asked to check the researcher's described themes at the end of the data analysis phase to confirm if they are appropriate. ☐
6. I understand that information about me recorded during the study will be made anonymous before it is stored in a secure database. Data will be kept for 7 years after the study has ended and then deleted. ☐
7. I understand that what I say during the interview will be kept confidential unless I reveal something of concern that may put myself or someone else at any risk. It will then be necessary to report this to the appropriate persons. ☐
8. I agree to take part in the above study. ☐
9. **Optional:** I agree that my anonymous research data will be stored and used to support other research during and after 7 years and shared with other researchers including those working outside the University. ☐
10. **Optional:** I agree to my contact details being stored for the purpose of being invited to participate in future research studies. ☐

_____ _____ _____

Name of Participant Date Signature

_____ _____ _____

Name of Person taking consent Date Signature

Appendix 4 – Interview Questions

Study Title: A phenomenological approach to supervision and mentorship in UK postgraduate medical training.

Interview Question Sheet

Research Ethics Reference: FMHS 445-0122
Version 1.0 Date: 31/01/2022

9. What is your role in UK postgraduate training (trainee/supervisor)?
10. What does mentoring mean to you?
11. Can you tell me about your experience of giving or receiving mentoring in UK postgraduate medical training?
12. How do you think mentoring can be helpful in medical training?
13. Do you have any more thoughts you would like to share about this topic?

Study Title: A phenomenological approach to supervision and mentorship in UK postgraduate medical training.

Interview Question Sheet

Research Ethics Reference: FMHS 455-0122
Version 2.0 Date: 18/03/2022

1- What is your role in UK postgraduate training (trainee/supervisor)? Which type of supervisor (is mentoring included in the role)?
2- What is your definition of supervision?
3- What does mentoring mean to you?
4- Can you tell me about your experience of giving or receiving mentoring in UK postgraduate medical training? (Elaborate on the experience)
5- Is mentoring happening within the supervision domain/meeting?
6- How do you think mentoring can be helpful in medical training?
7- What are your thoughts on having an assigned mentor for each individual in postgraduate training?
8- Do you have any more thoughts you would like to share about this topic?

Appendix 5 – Ethics Approval Form

Thank you for submitting the above application which was considered by a sub-committee on 11 February 2021. The following documents were received:

- FMHS REC Application form and supporting documents version 1.0: 31.01.2022

These have been reviewed and are satisfactory and the project is given a favourable ethics opinion.

A favourable ethics opinion is given on the understanding that:

1. The protocol agreed is followed and the Committee is informed of any changes using a notice of amendment form (please request a form).
2. The Chair is informed of any serious or unexpected event.
3. An End of Project Progress Report is completed and returned when the study has finished (Please request a form).

Yours sincerely

Dr John Williams, Associate Professor in Anaesthesia and Pain Medicine
Chair, Faculty of Medicine & Health Sciences Research Ethics Committee