

“You may think that the consultants are great, and they know everything, but they don’t”: exploring how new emergency medicine consultants experience uncertainty

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Handling editor Ceri Battle

► Additional supplemental material is published online only. To view, please visit the journal online (<http://dx.doi.org/10.1136/emered-2022-213013>).

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Received 30 November 2022

Accepted 13 May 2023

Published Online First

26 May 2023



► <http://dx.doi.org/10.1136/emered-2023-213327>



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To cite: Collini A, Alstead E, Knight A, et al. *Emerg Med J* 2023;**40**:624–629.

ABSTRACT

Background Uncertainty is particularly obvious in emergency medicine (EM) due to the characteristics of the patient cohort, time constraints, and busy environment. Periods of transition are thought to add to uncertainty. Managing uncertainty is recognised as a key ability for medical practice, but is often not addressed explicitly. This study explored how new consultants in EM experience uncertainty, with the aim of making explicit what is often hidden and potentially informing support for doctors to manage the uncertainty they face.

Methods This was a qualitative study using interpretive phenomenological analysis (IPA). Five consultants working in the UK within one year of achieving a certificate of completion of training were interviewed online during 2021, these were transcribed and analysed using IPA.

Results Three superordinate themes were identified: ‘transition and performance as a source of uncertainty’, ‘uncertainty and decision-making in the context of the emergency department’ and ‘sharing uncertainty and asking for help’. The transition created uncertainty related to their professional identity that was compounded by a lack of useful feedback. There was tension between perceived expectations of certainty and the recognition of uncertainty in practice. EM doctors were seen as experts in managing uncertainty, with responses to uncertainty including gathering information, sharing uncertainty and seeking help. Expressing uncertainty was viewed as necessary for good patient care but could be risky to credibility, with psychological safety and role modelling behaviour making it easier for the participants to express uncertainty.

Conclusion This study highlights the need for new consultants to have psychologically safe, reflective spaces to think through uncertainties with others. This appears to reduce uncertainty, and also act as a source of feedback. The study adds to the existing calls to address uncertainty more explicitly in training, and challenge the expectations of certainty that exist within medicine.

INTRODUCTION

Uncertainty is a complex, multifaceted phenomenon that has been difficult to define. It can be thought of as ‘the subjective perception of ignorance’¹—a realisation that we do not know something. It is particularly prevalent in emergency medicine (EM), with doctors in the emergency department (ED) expected to have a broad range of

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Uncertainty is inherent in the practice of medicine, particularly at times of transition, but managing uncertainty is often not addressed explicitly in medical training.

WHAT THIS STUDY ADDS

⇒ As well as specific instances of clinical uncertainty, uncertainty about performance was a common experience in new consultants.
 ⇒ This was worsened by a lack of useful feedback.
 ⇒ A feeling of psychological safety and the expression of uncertainty being role modelled by others made it easier to discuss uncertainty more openly.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ This study emphasises the need, particularly for new consultants, for safe reflective spaces to think through uncertainties with colleagues.
 ⇒ It adds to existing calls to address uncertainty more explicitly both in education and in practice.

knowledge and make more decisions in ambiguous situations than other specialties, in an environment characterised by time pressure, interruptions, and distractions.² Transitions, such as the transition from trainee to consultant or attending, are often periods of increased uncertainty. It is a liminal period—‘in which the sense of “who I am” gives way to “who I’m becoming”’.³ This is characterised by the need to build a new identity, compounded by new tasks—taking ultimate responsibility for patient care, management responsibilities, and supervision. These often need to be performed in an unfamiliar hospital with new staff, policies, and culture.⁴

Uncertainty in the practice of medicine has been contemplated since the time of Hippocrates, with modern research into this phenomenon beginning in the 1950s. Renée Fox described three types of uncertainty in medical students: personal ignorance, the limits of medical knowledge, and difficulty distinguishing between these.⁵ A large body of literature has accumulated since, comprising conceptual models of uncertainty,^{1 6 7} attempts to measure tolerance of uncertainty in individuals and



its associations,⁸ and qualitative studies examining how doctors experience uncertainty in various specialties.^{9–14} These qualitative studies have tended to focus on individual clinical decision-making rather than the experience of uncertainty within the sociocultural context. This context is particularly relevant to one of the common strategies used to reduce uncertainty—consulting others.^{9 11 12} Expressing uncertainty and asking for help can be seen as threatening to psychological safety^{9 15} and the perception of competence.^{5 16}

Learning to manage uncertainty can be seen as a key value in the culture of EM,¹⁷ but wider medical culture has traditionally been seen to deny or minimise uncertainty rather than acknowledge it.¹⁸ Uncertainty is not often addressed explicitly within undergraduate and postgraduate training,^{15 16} despite recognition by regulatory bodies that dealing with uncertainty is an important part of becoming a competent doctor.^{19 20} This ability may be associated with more holistic, patient-centred care^{8 16 21–23} and lower levels of psychological distress in doctors and medical students.²⁴ Consequently, we decided to examine how new consultants in EM experience uncertainty in order to address the gaps in the literature, and to help make this often hidden phenomenon more explicit. This knowledge has the potential to inform how we support new consultants (and likely those in training too) to manage the uncertainty they face.

METHODS

This study used interpretive phenomenological analysis (IPA) to examine how new consultants in the UK experience uncertainty. IPA is based within an interpretivist paradigm, where both reality and knowledge are seen as subjective and constructed by individuals or groups.²⁵ IPA is a method for analysing data that centres the individual and their lived experience involving a ‘double hermeneutic’ process, where the phenomenon being studied is interpreted and expressed by the participant, and then this is further interpreted by the researcher.²⁶

IPA uses small sample sizes with relatively homogenous characteristics to maintain the focus on the individual while identifying patterns across data.²⁶ Participants were recruited via social media, with the inclusion criteria that they were currently working as an EM consultant in the UK and had achieved their Certificate of Completion of Training (CCT) within the last year. A CCT is awarded when a doctor successfully completes a UK training programme approved by the General Medical Council. After expressing interest in the study, participants were sent a participant information sheet.

Data were collected via semi-structured interviews, lasting 30–60 minutes (mean 48 minutes). The interview schedule was based on extant research findings (see online supplemental material interview schedule). After the first interview, the schedule was refined. Participants were asked to think of previous examples where they had felt uncertain in relation to their work prior to being interviewed. AC conducted interviews virtually over Microsoft Teams in March–April 2021, these were audio-recorded and transcribed. Each participant was assigned a pseudonym to ensure anonymity. Data analysis followed the steps outlined by Smith *et al.*²⁶ The transcripts were read and reread to begin to understand participants’ narratives. Initial noting involved close reading of transcripts and writing detailed notes on content, language, concepts and questions arising. These notes were reviewed and developed into emergent themes. Searching for connections across the emergent themes involved making a list of these and using abstraction (where similar themes are gathered together and given a new name) and subsumption

(where similar themes are gathered together, with one of these becoming the named theme) to create superordinate themes for each case. We then identified patterns across cases and developed superordinate themes, with subthemes nested within these. Themes were discussed iteratively by AC, MP and EA to ensure the experiences of the participants were accurately represented. A draft version of the themes was sent to participants, whose comments were considered when drafting the final version.

IPA emphasises the reflexivity of the researcher, and their position in relation to the phenomenon and people being studied. AC was a senior registrar working in EM at the time of the study, and used her ‘insider’ (from working in EM) and ‘outsider’ (without first-hand experience of being a consultant) perspectives when interpreting the data. MP is an experienced education researcher and non-clinical medical educator, who has worked with consultants to deliver professional development workshops for new consultants. While he lacked personal experience of clinical decision-making and uncertainty, he was anecdotally aware of the challenges faced by new consultants as they adapt to the responsibilities of their new clinical role. EM is a very experienced consultant and medical educator. She has been a new consultant, and has supported new consultants, but in the medical specialty of gastroenterology rather than EM. This perspective helped highlight the differences between uncertainty in EM and other specialties. AK was not involved in the initial analysis. However, he is an experienced qualitative researcher and contributed to the development of the manuscript for publication.

RESULTS

Participants had all completed their undergraduate and postgraduate training in the UK. They had been working as consultants in different geographical locations and departments for between five and eleven months. Of the five consultants, two identified as female, three as male. They have been given the pseudonyms Christina (interview 1), Patrick (interview 2), Charles (interview 3), Hannah (interview 4) and Steven (interview 5). Christina, Hannah and Charles had previously worked in their departments prior to their appointment as consultants. Patrick had a different career before moving into medicine, and Charles had begun training in another specialty before moving into EM.

Three superordinate themes were identified: transition and performance as a source of uncertainty, uncertainty and decision-making in the context of the ED, and sharing uncertainty and asking for help. Superordinate and subthemes are displayed in [box 1](#).

Transition and performance as a source of uncertainty

Participants described that despite having the title of consultant, and working in that role, they did not always feel like a consultant:

Nine months ago, I wasn’t a consultant, I still have about the same amount of knowledge. The only difference is I’m wearing different coloured scrubs. (Steven)

This transition period was occurring during the COVID-19 pandemic, adding to the uncertainty participants faced, with rapid changes occurring in their working environments and colleagues struggling with heavy workloads due to the pandemic. Participants expressed significant uncertainty about whether they were living up to expectations, and what those expectations were.

Box 1 Superordinate themes and nested subthemes

Transition and performance as a source of uncertainty

- ⇒ Uncertainty about performance and building a reputation
- ⇒ Lack of effective feedback contributing to uncertainty
- ⇒ Additional responsibility influencing the experience of uncertainty
- ⇒ Tension between recognition of uncertainty and expectations of certainty

Uncertainty and decision-making as a consultant in the context of the ED

- ⇒ Uncertainty within the environment of the ED
- ⇒ Clinicians in EM as experts in managing uncertainty
- ⇒ Responses to clinical uncertainty

Sharing uncertainty and asking for help

- ⇒ Expressing uncertainty and shared decision-making as important for patient safety
- ⇒ Hiding uncertainty and projecting certainty
- ⇒ Psychological safety facilitating the expression of uncertainty
- ⇒ Role modelling

If you take a person who is highly driven, highly successful, has been constantly proving themselves from an early stage to get to this stage, and then you remove all of the metrics of what good looks like and what progress looks like, that is the uncertainty I struggle with most. (Steven)

Clinically, I've gone home sometimes and thought 'am I worth even employing? Have I earned my money today?' That's something I think quite a lot about. Sometimes I think 'Yeah, I earned my money today' and then other times I go home and think 'Oh, I hope they don't think I'm terrible, I hope they don't think they are regretting their choice of employing me because I'm not doing what they need me to do', so it's made me really question my abilities. (Christina)

Participants sought feedback but struggled to find meaningful input that lessened their uncertainty:

Everybody's busy so you ask somebody and they're like 'yeah, yeah, you were fine'. [Laughter] And I'm like 'That's not helpful!'. (Christina)

You run with it and hope that you're doing good things. And you're not completely sure whether you are, but you assume that if you're doing bad things, people will tell you. (Steven)

This uncertainty about performance seemed to have an emotional impact, provoking worry and anxiety in some participants.

That's really my major anxiety, and performance worries and uncertainty at the moment is actually how I'm settling in and whether I'm—I don't know... it's trying to be a consultant. (Hannah)

Participants were also taking on additional responsibility for clinical decision-making as a consultant, changing their experience of uncertainty. This responsibility heightened the fear of making an error, adding a feeling of pressure. They were also establishing how they interact and are seen by others in their new role:

All of a sudden you've gone into this role whereby, as you say, the responsibility falls. And the danger associated with that around uncertainty is that I suppose you're thinking will I make the wrong decision? Can I turn to my fellow colleagues if I am uncertain about a particular patient or a particular condition? Can I still turn to my colleagues? (Charles)

There was a perception among new consultants that both colleagues and patients expected certainty from them:

From a public perspective, there is still a huge element of that, of 'consultant knows best'. They feel as though if they see the consultant then they've seen the top person who knows everything, who's able to sort that out. (Charles)

The more junior they [doctors] are, the less they will recognise uncertainty in conversation, and the more that they are still affected by the hierarchy of you're a consultant so what you're saying is the truth. (Steven)

However, the perception of a medical culture that expected them to have all the answers was in tension with their epistemological position.

In our career we are kind of not allowed to not know things. But actually there are loads of things we don't know. (Patrick)

You may think that the consultants are great and they know everything, but they don't. (Charles)

With experience, they had moved from the view of knowledge as coming from an external source, with a single 'truth' or 'right answer', to the realisation that there are multiple perspectives that can be equally valid, and that some things are unknowable.

I suddenly realised you don't have to know all the answers all the time clinically, and there's often more than one way. (Hannah)

Uncertainty and decision-making as a consultant in the context of the ED

Uncertainty in the ED was linked to decision-making that was complex, with the need to balance competing demands and assess risk under time pressure. Uncertainty was often due to decisions related to managing the department, rather than individual clinical cases.

You're thinking about the decision-making of the department, so where you've allocated people, how you move things through, have you made flow-based decisions in the way that other people would do, or better or worse than them. There's the part where you're then trying to do not only the flow but the troubleshooting, answering questions. (Steven)

Decisions often needed to be made despite significant uncertainty. Added to this was the unpredictable nature of the specialty:

We walk in every morning and you have no idea what will come through your doors that day, what's waiting for you when you walk in ... so that element of uncertainty is every day in your work life as an EM consultant. (Charles)

Often consultants needed to rely on secondhand information and trust the judgement of others, which added an additional layer of uncertainty.

If you've got somebody who's overstretching themselves, doing stuff that's a bit off kilter, those are the people you end up struggling to trust and then you're worrying about them, and then that's an extra thing in your mind as you're running a department is 'that's the person I can't trust, that's the person I need to review all the patients, that's the one...' it's an extra burden on the leader. (Christina)

Participants viewed uncertainty in the ED as an intrinsic part of their job, and there was an awareness that decision-making while uncertain was something they were expert in.

Clearly there are still loads of patients we have no idea what to do with and as ED, we have to find something practical, safe and

realistic and that is what we are experts at, I genuinely believe that. (Christina)

However, this was in tension with the expectations of certainty from others and their own ideals that had been inculcated throughout their training.

With regards to how we're taught. We are told we need to reach a diagnosis... of course you're going to be a little bit uncertain if you can't reach a diagnosis, it's going to make you feel as though you have not achieved what you want for that patient. (Charles)

There were a variety of responses to try and reduce uncertainty before making decisions. These included gathering more information by doing more investigations, looking up guidelines or other information, and questioning the patient or the doctor who had seen them. There was an acceptance that assessing risk and making these decisions was a key part of the job, but was not always comfortable. Another response was to share uncertainty and ask for help.

Sharing uncertainty and asking for help

Sharing uncertainty and seeking help was seen as necessary, important for good patient care, and was valued in others.

If you have somebody who is very cognisant of their own limitations, then you never worry about them, you can almost—it sounds terrible—but you can almost forget about them because you know that if there's an issue they are just going to come and find you... So I like people saying they don't know what to do. (Christina)

Sharing uncertainty also allowed for shared decision-making with both patients and colleagues. However, if we consider this in the context of a culture where a consultant is expected to be certain, and the importance of establishing a reputation, we can see there is a tension between the need to express uncertainty and the need to maintain credibility. This manifested itself as the need to project certainty (and hide uncertainty).

Because we've got a hierarchy and we want to impress somebody and we want to do well, we don't necessarily want to say to them I don't know something. (Patrick)

As we have seen previously, participants saw uncertainty as integral to ED work, and the experience of uncertainty may be different in other specialties, which sometimes made interactions more challenging when sharing uncertainty.

There's no way I'd declare my uncertainty to some of the specialties that were coming down, because that would absolutely ruin my credibility. I could do it to the consultants I knew within the ED but certainly not to the specialties. (Hannah)

A psychologically safe environment, which felt open and non-judgemental, was important to facilitate the expression of uncertainty and requests for help.

I'm fortunate because I know that all of my colleagues I can turn to and say 'I'm not sure about this. What should I do?' And they'll answer, they won't take any less of me, they won't think any worse of me. (Charles)

The expression of uncertainty by others (particularly seniors) seemed to have a significant impact.

I saw a consultant come in—two actually that I hold in really high esteem—come in and soundboard a clinical scenario with a few consultants that were in the room, and I suddenly realised 'Oh, this consultant's brilliant and yet they're still asking for clinical advice,

and no-one's going "Oh my god, can't you handle that?" It's a sound-boarding exercise. (Hannah)

DISCUSSION

There were two kinds of inter-related uncertainty experienced by the participants. The first comprised individual instances of uncertainty related to a specific situation. The second was more pervasive, and consisted of uncertainty about their identity, including the performative aspects of their work and how they are perceived by others. This was compounded by a perceived lack of useful feedback. The transition from trainee to consultant seemed to amplify uncertainty, with unclear expectations, the need to build a reputation and additional responsibility contributing to this. The ED was described as an intrinsically uncertain environment, and experienced EM clinicians were viewed as experts in managing uncertainty rather than individuals who no longer experienced uncertainty. Sharing uncertainty and asking for help were seen as beneficial, but potentially risky due to the perception of the participants that certainty is expected of them in the role of consultant. This led to a perceived need to hide uncertainty and project certainty. Observed behaviours of expressing uncertainty, and the responses received, contributed to the perceived acceptability of doing so.

In the transition from trainee to consultant there is significant disruption to the processes of self-assessment.²⁷ There is a loss of explicit standards (such as specialty training curricula), and the new role comes with new implicit external standards that take time to understand. There is a loss of feedback through work-based assessments, and the loss of a supervisor and supervisory meetings to assess progress. Feedback was described as being brief and non-specific ("you're doing fine"), which was unlikely to be given much weight, particularly when incongruent with recipients' perceptions.²⁸ It is also important to consider the factors that have contributed to the internal standards that our participants were holding themselves to. The expectation of certainty from others that was experienced by the participants, while consciously recognised as unrealistic, may have been internalised as part of these standards. It appears that not knowing is often experienced as something shameful from medical school onwards.²⁹

Purdy *et al* found that 'a cornerstone of emergency medicine is managing uncertainty'.¹⁷ In specific cases of uncertainty, it appeared that gathering information and seeking help were commonly used management strategies, similar to previous findings.^{9 11 12 14 30} Interestingly, in this study some of the more challenging situations participants discussed occurred overnight, when they were unable to ask other EM consultants for help and either had to make a decision themselves or discuss with other specialties—who do not have the same understanding of the uncertainty faced by EM clinicians.¹⁷ The perception of the need to project certainty felt by the participants has echoes of Lingard's manner of confidence,¹⁶ where faculty were not obviously certain or uncertain but projected confidence. Similarly, Fox's manner of certitude,⁵ where students learnt to project certainty despite feeling uncertain. How to express uncertainty while maintaining credibility is potentially a skill to be learnt.

Role modelling appears to be important in learning how to manage and express uncertainty,^{15 16} congruent with present findings. Positive responses to the expression of uncertainty helps create a perception of psychological safety.³¹ This allows for discussions where it is possible to think through something together, which can be likened to the idea of 'borrowing comfort' described by Ilgen *et al*,¹² commonly occurring with specific

clinical problems. However, participants found it more challenging to have these conversations in relation to general aspects of performance, such as managing the department. This may be indicative of cultural problems with feedback in medicine,³² or perhaps there is an expectation that consultants no longer need this kind of feedback as they have completed their training. This view is perpetuated by the language used to describe the transition (trainee to trained).³³

Implications

Expressing uncertainty is important for numerous reasons—good patient care, shared decision-making, shared understanding, obtaining feedback, and role-modelling to others that it is acceptable not to know. Despite increasing recognition that the ability to manage uncertainty is a key part of being a doctor,^{19 20} this study suggests that it can be risky to discuss this openly. This is worrying as it appears that role modelling is an important part of learning.¹⁵ In practice, ‘thinking aloud’ in uncertain situations with junior colleagues can highlight uncertainty and demonstrate how an individual manages it. We would add our voices to the calls for medical training to address uncertainty explicitly,^{22 34 35} and to challenge some of the philosophical assumptions that underpin medical education and its apparent desire for certainty.³⁶ It appears that communicating uncertainty is a key skill, and perhaps should be taught as such.

This study also highlights the importance of a culture of psychological safety to allow the expression of uncertainty, both for role modelling and for patient care.³⁷ We would recommend creating time and space for clinicians of all levels to have reflective conversations about uncertainty, with this likely to be particularly useful for those who are going through a period of transition. The sharing of uncertainty and thinking this through with others seems to make uncertainty more manageable,¹² as well as having the potential to support learning and provide feedback.³⁸ The consultants in this study were all from different departments in different regions of the UK, but all mentioned that there was an absence of useful feedback, suggesting more formal processes for providing this may be needed.

Limitations

This was a phenomenological study exploring the experiences of a small group of EM consultants based in the UK, and was primarily analysed by one researcher (AC). The interpretivist paradigm recognises that interpretation is subjective, and we are unable to eliminate all our assumptions and biases when interpreting data. However, to ensure the quality of the analysis AC kept reflexive notes throughout, and the involvement of a research team with differing background aimed to minimise these blind spots. While there were only five participants, the ideographic basis of IPA (where we are focused on making sense of unique, individual experiences) means that the sample size needs only to generate rich data which was achieved in this study. By its nature, this is a unique perspective on the phenomenon and does not aim for generalisability, but transferability—where the reader feels able to take the findings and apply them in their own context.³⁹ We did not collect data on age, ethnicity, or other protected characteristics which could limit the transferability of our findings. This study did not use an a priori theory to explain the data, as the analysis was inductive and aimed to represent the lived experience of participants.

Recommendations for future research

Similar studies in different contexts and longitudinal studies would be useful to explore the phenomenon further and show how these experiences change over time. Personal characteristics such as gender, ethnicity, and other protected characteristics are likely to play a role in the experience of uncertainty and future work should explore this. Research is also needed to determine how doctors can be supported to transition from trainee to consultant, including the provision of useful feedback. It also appears that communicating uncertainty while maintaining credibility is an important skill. Research examining the best ways of teaching this skill, and exploring the cultural aspects of expressing uncertainty (including how this can be made more acceptable) would be valuable.

CONCLUSION

New consultants experience several inter-related tensions related to uncertainty. First, the expectation (and desire) to know all the answers versus the realisation that this is impossible. Second, a desire to know whether they are living up to expectations but struggling to get meaningful feedback. Third, the need to make a decision in the face of uncertainty. And finally, balancing the benefits of expressing uncertainty with the possible risks of doing so. We believe that managing uncertainty is the essence of medical practice, particularly in the ED, and there is a need to explicitly address this during medical training and in clinical practice.

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Contributors AC designed the research project and collected the data, with support from MP and EA. AC conducted the data analysis with input from MP, EA and AK. AC wrote the first draft of the paper, with all other authors contributing to subsequent drafts and revisions. AC takes responsibility for the paper as a whole and is the guarantor.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

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

Patient consent for publication Not applicable.

Ethics approval Ethical approval was provided by the Queen Mary University of London Ethics of Research Committee (reference number: QMERC20.173). Participants gave informed consent to participate in the study before taking part.

Provenance and peer review Commissioned; externally peer reviewed.

Data availability statement No data are available. Not applicable.

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