Generative AI in Primary Care: A qualitative study of UK General Practitioners' Views

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Abstract

Background: The potential for generative AI (GenAI) to assist with clinical tasks is the subject of ongoing debate within biomedical informatics and related fields.

Objective: This study aimed to explore general practitioners' (GPs') opinions about GenAI on primary care.

Methods: In January 2025, we conducted a Web-based survey of 1005 UK GPs' experiences and opinions of GenAI in clinical practice. This study involved a qualitative descriptive analysis of a written response ("comments") to an open-ended question in the survey.

Results: Comments were classified into 3 major themes and 8 subthemes in relation to GenAI in clinical practice. The major themes were: (1) unfamiliarity, (2) ambivalence and anxiety, and (3) role in clinical tasks. 'Unfamiliarity' encompassed lack of experience and knowledge, and the need for training on GenAI. 'Ambivalence and anxiety' included mixed expectations among GPs in relation to these tools, beliefs about diminished human connection, and skepticism about AI accountability. Finally, commenting on the role of GenAI in clinical tasks, GPs believed it would help with documentation. However, respondents questioned AI's clinical judgment and raised concerns about operational uncertainty concerning these tools.

Conclusions: This study provides timely insights into GPs' perspectives on the role, impact, and limitations of GenAI in primary care. A majority reported limited experience and training with these tools; however, many GPs perceived potential benefits of GenAI and ambient AI for documentation. Notably, two years after the widespread introduction of GenAI, GPs' persistent lack of understanding and training remains a critical concern. More extensive qualitative work would provide a more in-depth understanding of GPs' views.

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Keywords: Generative AI; general practice; primary care; large language models; education; training; online survey questionnaire; qualitative research.

Introduction

Background

Since the launch of ChatGPT 3.5 in November 2022, interest in large language model (LLM)-powered chatbots has burgeoned with increasing attention given to their potential applications within clinical practice. These models, built on Generative Pre-trained Transformer (GPT) architectures, undergo extensive pre-training on large datasets before fine-tuning for specific tasks. By leveraging probabilistic language generation, they produce contextually relevant responses and engage in dynamic, conversational interactions while retaining contextual memory - distinguishing them from traditional search engines.

The potential clinical utility of these models is now recognized. Emerging research highlights their capacity to streamline workflows by supporting automated medical documentation through "ambient" or "listening" artificial intelligence (AI) [1–4], enhancing the accessibility and empathy of patient-facing clinical notes [5,6], and assisting with differential diagnosis formulation [7–9]. However, significant challenges persist. LLM-powered tools are prone to factual inaccuracies, or "hallucinations," and may perpetuate biases related to race, gender, and disability, contributing to algorithmic discrimination in healthcare [10,11]. Additionally, the widespread availability of consumer tools, combined with their consummate capacity to engage users in 'conversations' raises significant concerns regarding patient privacy [12,13].

Despite growing enthusiasm, most studies have evaluated generative AI (GenAI) in controlled environments rather than examining real-world clinical adoption. Limited research has explored how physicians, particularly those in frontline healthcare roles, integrate GenAI into daily practice. Addressing this gap, a 2023 survey of 138 psychiatrists affiliated with the American Psychiatric Association reported that 44% had used ChatGPT-3.5, and 33% had used GPT-4.0 for clinical queries [14]. Similar findings emerged from a broader survey conducted in November 2023 among 938 UK public sector professionals, including National Health Service (NHS) staff (24%) and emergency service workers (15%) [15]. In this cohort, 45% reported awareness of colleagues using GenAI, and 22% confirmed personal use. In February 2024, we conducted a nationwide survey of 1,006 UK general practitioners (GPs) to assess their adoption of generative AI into clinical practice [16]. Among respondents, 20% had adopted GenAI tools, predominantly for documentation (29%) and differential diagnosis support (28%). Although interest in GenAI in healthcare is growing, empirical data on clinician adoption - particularly from surveys and qualitative studies - remain scarce.

Objectives

Amid ongoing debates about AI's impact on the future of medical professions, the perspectives of practicing physicians have received limited attention [14–16]. To address this gap, we conducted an online survey examining UK GPs' experiences and opinions on the potential impact of generative AI in primary care. Recognizing the value of qualitative insights, we incorporated an open-ended survey question to explore GPs' perspectives in greater depth. We aimed to provide a preliminary investigation into their views on how GenAI shapes primary care.

Methods

Main survey

A complete methodological description of the survey is available elsewhere [17]. In summary: we conducted an online survey among a random general practitioners (GPs) registered with Doctors.net.uk, the largest professional network for UK doctors affiliated with the General Medical Council (GMC). At the time of the study, Doctors.net.uk had 254,741 members, representing approximately 65% of the 390,000 registered doctors in the UK. Eligible participants also included those who had opted in to receive survey invitations via email. The study received ethical approval from the Faculty of Psychology, University of Basel, Switzerland (approval ID: #030-24-1). Participants were assured of anonymity, and informed consent was obtained before participation.

The survey was part of a recurring monthly omnibus survey, which maintains a fixed sample size of 1,000 participants. Respondents were required to complete all closed-ended questions to submit their responses; however, response to a single open-ended, free text question was optional. Invitations to a random sample of GPs who are members of Doctors.net.uk were distributed via email notifications or homepage advertisements on Doctors.net.uk, depending on user preferences. The survey was open from January 7, 2025, to January 26, 2025. During the 90-day period in which the survey was administered 25,569 GPs were active on the platform.

The online survey was divided into four sections which explored participants' experiences with, and opinions about, the use of GenAI in primary care. Prior to launch, the survey underwent pretesting and a pilot phase involving five UK-based GPs to assess usability and clarity. The final version of the survey (see Multimedia Appendix 1) was designed to take 3–5 minutes to complete. The study adhered to the CHERRIES (Checklist for Reporting Results of Internet E-Surveys) guidelines [1] (see Multimedia Appendix 2).

The survey was hosted on Doctors.net.uk's secure platform, and all responses were encrypted and anonymized before data analysis. Email addresses and personal identifiers were removed prior to data transfer to the research team. The study complied with the European Union's General Data Protection Regulation (GDPR). As an incentive, participants received a £7.50 (US$8.80, €8.83) shopping voucher upon survey completion.

Qualitative Component

To maximize the response rate for the qualitative component, as noted, we included a single, optional, open-ended question that allowed participants to respond in more detail to the topic of the survey. Specifically, we requested: "Please add any comments about the topic or the survey. *Please add 1-2 brief comments.*"

Descriptive qualitative data analysis was used, and we applied inductive thematic coding to the data [18,19]. Due to the limitations of the dataset – the brevity of comments, and responses as sentence fragments – a full thematic analysis was not feasible [20].

Responses were cleaned (comments such as "none," "n/a," and "no comments" were deleted), and remaining responses were imported into QCAmap (coUnity Software Development GmbH) for analysis. To familiarize themselves with the data, CB and JT conducted multiple readings of the comment transcripts. Following this, an inductive coding approach was used, where descriptive labels ("codes") were assigned to each comment. Comments containing multiple meanings were assigned multiple codes accordingly. To ensure consistency, comments and their corresponding codes were reviewed and compared to identify patterns, similarities, and differences. CB and TJK collaboratively discussed coding decisions, leading to further refinements where necessary. Finally, first-order codes were organized into second-order categories based on shared meaning, providing a structured summary of the responses.

Results

Overview

Out of 1,005 respondents, 611 GPs (61%) provided written comments in response to the free text question, totaling 7,990 words. These comments were generally brief, ranging from short phrases to one to three sentences. As outlined in the quantitative survey, respondents were representative of UK GPs in terms of age and gender and from all regions of the United Kingdom [17]. GPs who submitted comments were not significantly different from those who did not both in terms of role, age, practice size, or whether they think practice could be affected by GenAI (Table 1). GPs who submitted comments differed significantly from those who did not, particularly by gender. Female GPs were more likely to leave comments than male GPs, with 53.0% (324/611) of female GPs providing feedback compared to 41.1% (162/394) who did not. Chi-square tests confirmed this difference (p = .001). In addition, doctors who left comments were significantly more likely to have used GenAI in clinical practice compared to those who did not. Among all respondents, 71.7% (438/611) had not used GenAI. However, non-commenters were even less likely to have used it, with 80.7% (318/394) reporting no use. A Chi-square test confirmed this difference (χ^2 = 9.98, p = .002). More detailed information about these variables and their categories is available in Appendix 3; de-identified, raw qualitative data is available in Appendix 4.

Table 1. Comparison of general practitioners who submitted comments and those who did not submit comments.

Variable	Submitted comments	Did not submit	Comparison

		(n= 611)	comments (n=394)		
		n (%)	n (%)	Chi-square	P-Value
Role	GP Partner / Principal	246 (40.3)	193 (49.0)	$\chi2 = 7.92$	.048
Gender	Female	324 (53.0)	162 (41.1)	$\chi2 = 14.69$	.001
Age	≥ 46	334 (54.7)	212 (53.8)	$\chi2 = 0.04$	.84
Practice place	Large town/city (e.g. Nottingham, Cardiff)	87 (14.2)	67 (17.0)	$\chi2 = 14.20$	.014
Practice Size	≥ 10,001	330 (54.0)	196 (49.7)	$\chi2 = 1.57$	.209
Used GenAI to assist clinical practice	No	438 (71.7)	318 (80.7)	$\chi2 = 9.98$	.002
Practice could be affected by GenAI	Decrease my risk of having legal action taken against me	51 (8.3)	40 (10.2)	$\chi2 = 1.04$	.79

Through an iterative thematic analysis of the comments, three key themes were identified regarding GPs' perspectives on GenAI in clinical practice: (1) unfamiliarity, (2) ambivalence and anxiety, and (3) role in clinical tasks. These themes were further divided into eight subthemes, each detailed in the following sections with illustrative quotes (see Figure 1). Parenthetical numbers indicate individual participant identifiers.

Figure 1. Themes and subthemes.

Theme	Subtheme
Unfamiliarity	- Lack of experience and knowledge - Need for training
Ambivalence and anxiety	- Mixed expectations - Diminished human connection - Skepticism about AI accountability
	- Help with documentation

Role in clinical tasks	- Questioning AI's clinical judgement - Operational uncertainty

Unfamiliarity

Lack of Experience and Knowledge

Many participants noted that they had, "No experience" with GenAI or "haven't used it." Relatedly, multiple GPs stated that they had, "*Not enough experience of this area to comment*" [#, gender, age range, used it or not] [#98, prefer not to say, 46-55, No]. However, some GPs noted limited familiarity with these tools; for example:

> *Only started using recently…* [#58, M, 46-55, Yes]
>
> *No experience in this at all but aware of it.* [#132, F, 36-45, No]
>
> *Colleagues find it useful but I have not tried it yet.* [#306, F, 36-45, No]

Multiple respondents also identified their lack of knowledge about GenAI, and some GPs were emphatic about their lack of understanding; for example:

> *The great unknown for me.* [#242, F, 46-55, No]
>
> *Really no idea.* [#823, F, 36-45, No]
>
> *Total minefield and I have no knowledge in this area.* [#899, F, 36-46, No]

Need for Training

Reported lack of training and guidance was another common concern. Some GPs stated that, "GPs have no training in AI," and expressed their "Really limited exposure to AI in the workplace." Many participants connected their lack of familiarity with GenAI with the need for greater formal guidance; for example:

> *Need far more training on AI use in healthcare setting than currently available.* [#997, M, 36-45, No]
>
> *I have little experience but I feel if we have some training […] this would be helpful in healthcare then I may be more comfortable with it.* [#71, F, 36-45, No]
>
> *It needs to be delivered with inclusive training so less IT confident colleagues are not left behind.* [#989, Prefer not to say, 36-45, No]

A number of GPs emphasized that training needed to be specific to primary care; for example:

> *Need more proactive support and resources to take on such tools to help support general practice utilize such tools.* [#1056, M, 36-46, No]
>
> *I need more guidance on suitability for general practice in my location.* [#259, M, 35 or under, No]
>
> *…would be hesitant to use it without a significant amount to training tailored to a GP setting.* [#772, F, 36-45, No]

Ambivalence and Anxiety

Mixed Expectations

Another major subtheme was the contrast in expectations surrounding GenAI. Many comments were brief, capturing broad sentiments about its potential impact. Notably, many GPs expressed deep skepticism or mistrust regarding AI's role and consequences in primary care; for example,

> *Not used it and frightened of it being implemented.* [#1059, F, 36-45, No]
>
> *Theory sounds good. Dangerous in reality.* [#515, M, 36-45, Yes]
>
> *I hope I get to retirement before all this nonsense takes over.* [#637, M, 46-55, No]

Some described GenAI as irrelevant to general practice; for example:

> *To be honest AI not necessary in our domain.* [#87, M, 46-55, Yes]
>
> *There is no role for AI in my role. We need real, not artificial, intelligence to look after patients.* [#942, M, 46-55, No]

Some GPs voiced anxiety, linking their negative expectations to "concerns about job security" and the existential threat of AI to their profession; for example:

> *Could be the end of medicine as we currently know it.* [#97, M, 46-55, No]
>
> *I dread to think of human doctors being replaced by AI.* [#623, M, 46-55, No]
>
> *I would be very surprised if AI does not completely take over the role of GPs over the next 15 years.* [#358, M, 46-55, No]
>
> *GPs are a dying breed. We had an informal discussion over our last Christmas meal if we need to now become IT professionals or even a bricklayer.* [#985, M, 46-55, Yes]

In contrast, many others expressed uncertainty and caution about the role of GenAI in clinical practice. For example:

> *Unsure of its role yet.* [#651, M, 56 or over, No]
>
> *I am not convinced that AI will help.* [#113, F, 36-46, No]
>
> *Very early to say. Lots of unknowns.* [#810, M, 36-45, No]

However, reflecting the divergence of opinions, some GPs were "very excited about this development" and more optimistic about the usefulness of GenAI. For example:

> *This is here to stay and if anything have increased presence in our working life. So we as clinicians need to embrace it!* [#312, F, 36-45, Yes]
>
> *I can't believe that it is taking so long to integrate AI into healthcare. It is very obvious that this is the way forward…* [#42, F, 56 or over, No]
>
> *It will be transformational for healthcare.* [#512, F, 46-55, No]
>
> *It's a force for good.* [#877, M, 46-55, Yes]

Diminished Human Connection

Many GPs worried about the effects of GenAI on empathy and the risk that "it will take away the human touch", undermine the face-to-face interaction, and that "it will dehumanize medicine". For example:

> *I feel AI will not read patients and miss the social cues and hidden agendas patients have.* [#130, F, 36-45, No]

Some respondents assumed that patients would view GenAI outputs as inferior when it comes to humanistic aspects of care; for example:

> *Removes any element of compassion/empathy. No patient really wants to be seen by a robot. Would you?* [#906, F, 35 or under, No]

> *It may be a useful assistant but cannot replace the genuine interest, empathy and intuition of an experienced clinician.* [#53, F, 36-45, Yes]

> *Not much empathy in the responses, sounds fake.* [#569, F, 46-55, No]

Some GPs, however, challenged this assumption, and proposed that the adoption of GenAI tools might benefit communication and patient interactions; for example:

> *A recent study showed that ChatGPT was more empathetic than doctors in dealing with patients [...] I'm all up for technology.* [#280, M, 46-55, No]

> *I think the gains from interpersonal interaction are being underestimated.* [#479, M, 56 or over, No]

> *It's good for patient communication.* [#279, F, 36-45, Yes]

Skepticism about AI Accountability

Comments reflecting GenAI anxieties also centered on the broader theme of AI access to sensitive patient information and accountability. However, again, many responses were brief and broadly framed. Some GPs specifically voiced concerns about patient data security, for example:

> *Still concerns over third parties having access to patient data.* [#475, M, 36-45, No]

> *Significant concerns regarding privacy and data protection.* [#435, M, 46-55, No]

> *We use very little due to GDPR concerns, regulatory concerns, and do not use it in direct patient care currently...* [#841, F, 36-45, Yes]

Other GPs expressed attenuated optimism, describing the need for specific safeguards before AI could be adopted; for example:

> *I'd like to use AI for note taking during consultations but difficult to implement in terms of privacy, confidentiality, security.* [#211, M, 36-45, Yes]

> *Seems like a really positive way forward. Need to be sure about ethics re info sharing.* [#686, F, 46-55, Yes]

Other GPs raised concerns about legalities, particularly in relation to who, or what, would be accountable if things went wrong in the adoption of these tools; for example:

> *I have concerns about who will regulate the provision of AI tools, and what impact their use will have on liability for medical errors.* [#594, M, 56 or over, No]

> *Very suspicious of AI, it depends totally on quality of information inputted. Who is medicolegally responsible?* [#629, M, 46-55, No]

Role in Clinical Tasks

Help with Documentation

A dominant sub-theme when it came to the role for GenAI was in administration and clinical documentation. Many GPs expressed buoyancy about the capacity for these tools to "help efficiency" in clinical notes; for example:

> *Completely changed my enjoyment of job – means I can focus on pt [patient] rather than busily typing away.* [#311, F, 36-45, Yes]

> *Useful to speed up documentation.* [#54, F, 36-45, Yes]

Notably, many GPs specifically mentioned 'Heidi' an ambient clinical AI integrated into NHS trusts, which automates medical scribing, documentation, and patient data management with the aim of reducing administrative burdens for GPs. Respondents explicitly mentioned their positive experiences with this tool;

> *Heidi Health has been incredible for generating excellent documentation for consultations that improve communication and reduce my workload as GP. Very accurate with medical jargon used.* [#1017, M, 36-45, Yes]

> *Using Heidi as an ambient AI has made a massive improvement on my working efficiency and quality of notes.* [#252, M, 36-45, Yes]

> *Heidi is fabulous. It saves me an hour a day but also a lot of brain ache...* [#819, M, 46-55, Yes]

However, some GPs expressed more reserved views about the role of AI in documentation, acknowledging the benefits while maintaining a cautious perspective:

> *Saves time transcribing consultation and generating referral letters. Not perfect but helps.* [#1043, F, 36-45, Yes]

> *Find it good for note taking and I guess about 90% accurate.* [#310, M, 46-55, Yes]

> *I find that using Heidi intermittently will significantly reduce my documentation time. You do need to read the transcription prior to use in the notes [...] but otherwise I find it very useful especially with more complex histories or mental health patients who may take longer consulting times.* [#160, F, 36-45, Yes]

Finally, a number of GPs specifically mentioned the role of GenAI in drafting patient-facing letters, and improving communication, including for bridging language barriers; for example:

> *Good for doing letters and complaint responses.* [#758, F, 36-45, No]

> *Have found it helpful to re-phrase content sent to patients to make it easier to understand or remove jargon.* [#967, M, 46-55, Yes]

> *It helped me with communication and good language with the patients as English is not my first language.* [#57, F, 35 or under, No]

Questioning AI's Clinical Judgment

Despite GPs' optimism about the role of GenAI in documentation, most GPs were cynical or expressed reservations about the role of these tools in replacing doctors' clinical judgment. Notably, however, it was unclear if these judgments encompassed user experiences; for example:

> *AI cannot replace the spidey sense of a GP to know that something is wrong.* [#32, M, 36-

45, Yes]

> *It has the potential to aid in management of patients but there is a long way to go for its diagnostic accuracy.*[#1034, F, 36-45, No]

> *There are times in my profession I used my "GUT" and it has been pretty good to me so far. People do not fit into boxes so I think AI will work on probabilities.* [#933, M, 36-45, No]

Operational Uncertainty

While less frequently mentioned, some participants stressed that AI must be "very carefully implemented" and require "clinical oversight," highlighting the need for clearer divisions of labor between AI and doctors. One GP highlighted the following concern relating to doctors' overreliance on AI:

> *I use ChatGPT frequently and it has enormous potential and is very useful but it needs sense checking and it could cause complacency in busy overstretched healthcare professionals. When you start using it, it appears to have a solution to many problems and it also converses with you in a way that feels authentically human. These are impressive qualities but it should only be seen and used to augment rather than replace effort.* [#922, M, 46-55, Yes]

Taking a different angle on operational uncertainties, a minority voiced concerns about technopolitical shifts and the broader trajectory of AI's impact. For example:

> *Too many billionaires controlling our work as it is. Stuff AI doing turning us into robots.* [#324, M, 46-55, No]

> *I believe AI is a Pandora's box that has already been opened. We lack the safeguards or infrastructure to control its possible (and potentially catastrophic) effects.* [#209, M, 46-55, No]

Discussion

Principal Findings

This qualitative study provides insides into UK GPs' opinions about GenAI in clinical practice. Comments were classified into three major themes in relation to GenAI: (1) unfamiliarity, (2) ambivalence and anxiety, and (3) role in clinical tasks. Many GPs reported a lack of experience and familiarity with GenAI, and a need for training tailored to primary care. They also expressed a spectrum of views on GenAI in clinical practice, ranging from optimism to deep skepticism. While some saw GenAI as a promising tool for reducing administrative burden – particularly in documentation – others voiced concerns about its accuracy, potential to erode human connection, and unclear medico-legal implications. Widespread uncertainty about AI's role in primary care, alongside ethical and regulatory concerns, underscored GPs' reported need for structured guidance.

This qualitative study supports other studies, conducted prior to the launch of GenAI, which signal that GPs and medical students have limited formal training on AI [15,21–24]. For example, a recent survey of 175 UK medical students found little awareness of formal AI or data science training in their curriculum, while 92% of 210 trainee doctors felt their AI education was inadequate. In our study, lack of familiarity with these tools was clear, with many GPs reporting minimal exposure to GenAI, stating they had no experience or understanding of how these technologies function; moreover, this unfamiliarity was closely linked to GPs' concerns about insufficient training. Online training is now available via the NHS Learning Hub.

Certification as an 'Artificial Intelligence Practitioner' is offered [25] and the Medical Schools Council has called for AI training integration and proposed learning competencies [26]. Our findings emphasize the critical need for AI-related training, which is both essential and highly sought after by GPs. They also highlight the importance of developing innovative, adaptive training approaches. Given the rapid evolution of AI, GPs may be hesitant to invest time in education that risks becoming quickly outdated. Our results suggest that GPs seek training that clarifies the parameters of AI use, provides insights into its strengths and limitations, and offers accessible advice on staying updated as the technology advances.

GPs expressed highly divergent views on GenAI in primary care, with opinions ranging from deep skepticism and existential anxiety about their job to excitement. These findings echo previous research, which show physicians have mixed opinions about AI [21]; again, this this broad spectrum of expectations may be indicative of a lack of formal education. Similar to previous research, GPs worried about the potential for AI to erode human connection, and to undermine empathy, depersonalizing care [21,27]; this perspective is also common among leading medical commentators [28]. However, these views contrast with emerging research suggesting that GenAI may enhance, rather than diminish, compassionate care. In a blinded study, ChatGPT's responses were rated as ten times more empathetic than those of physicians, challenging assumptions about AI's limitations in patient communication [6]. Other research suggests that AI can play a role in assisting clinicians to write empathetic communication with patients [29] and that patients cannot discern when AI is responding [30]. While more research is needed to explore patients' opinions about using AI in clinical care, emerging studies suggest that at least some patients are turning to these tools for support [31]. Few participants commented on how AI and clinicians might collaborate more effectively. The concept of AI as a "co-pilot" is an increasingly proposed model, drawing parallels to how airline pilots work alongside autopilot systems in aviation [32]. Others dispute the seamless integration of AI and doctors [33,34], challenging this assumption.

Many expressed concerns about AI's accountability and data privacy. These are ongoing concerns. Implemented in February 2025, the European Union's AI Act, the most comprehensive global legislation on AI, designates consumer GenAI tools as "high risk" due to concerns over cybersecurity, accuracy, reliability, and transparency [35]. Most LLMs do not claim clinical suitability, and the General Medical Council (GMC) advises clinicians to apply professional judgment when using AI or emerging technologies in practice [26]. Our findings suggest that this guidance is insufficient to alleviate GPs' concerns about accountability, privacy, and when it is appropriate to use these tools. Without firm legal grounding, GPs may take on liability for AI errors and so place themselves at risk.

Notably, however, GPs were buoyant about the role for GenAI chatbots, and ambient AI – particularly the medical AI scribe 'Heidi Health', in assisting with documentation. This finding aligns with previous surveys suggesting that doctors perceive AI as beneficial in handling administrative tasks [21,22,36,37]. Emerging studies also suggest AI may improve workflow efficiency [3,4]; some preliminary studies suggest it might reduce burnout [38,39]. However, the risk of GenAI hallucinations and errors raises concerns about the need for clinical oversight.

In our study, GPs questioned whether AI could ever replace the intuitive and experiential judgment of an experienced GP, emphasizing the irreplaceable nature of human clinical reasoning. While AI tools are not intended to replace clinical judgment, emerging evidence underscores its remarkable capabilities in differential diagnosis, with several studies demonstrating that generative AI can outperform clinicians in certain diagnostic tasks [8,40].

However, many GPs may be correct in remaining unsure of the added value of AI-driven diagnostic support, especially if actual clinical care is based on real-world data and decisions are made on complex information instead of simple vignettes.

Notably, few GPs highlighted how GenAI tools might enhance patient access to medical information, suggesting a limited awareness of their potential role in patient empowerment. Additionally, despite well-documented concerns about algorithmic fairness and reliability, there was scarce mention of the risks of bias inherent in these AI-driven systems [10]. This lack of engagement with both the opportunities and risks of GenAI suggests a broader gap in discourse and critical evaluation of AI's value in primary care, underscoring the need for more comprehensive discussions on its integration and ethical implications.

Strengths and Limitations

This study represents the largest investigation to date into the perspectives of physicians on the integration of GenAI in clinical practice. Using a web-based survey may have encouraged more candid feedback, as evidenced by the strength of participants' responses. As previously noted [17], although our sample aligned with the UK GP population in terms of age and regional distribution, as reflected in the General Medical Council Registry, our sample was not gender-representative [41]. While the national GP workforce comprises more women than men (58% vs. 42%), our sample had an equal gender split.

However, the study has limitations related to the use of a nonprobability sample via Doctors.net.uk. Response biases may also have influenced findings, as those with particularly strong opinions - whether in favor of or against GenAI - may have been more likely to participate. Additionally, the web-based survey limited response length and the opportunity for more nuanced insights.

We recommend ongoing qualitative research to explore GPs' perspectives on GenAI. More robust, nationally representative surveys are needed to provide a clearer understanding of clinicians' experiences and concerns. Additionally, further studies should assess the practical impacts of GenAI on workload and decision-making using objective measures. Finally, we emphasize the importance of extensive survey research to explore patient perspectives on the benefits, risks and opportunities associated with these tools, including how they perceive clinicians' who use these tools.

Conclusions

This study offers timely and valuable insights into GPs' perspectives on the role, impact, and limitations of generative AI in primary care. A dominant theme among GPs was their limited experience and training with generative and ambient AI, despite recognizing its potential benefits for clinical documentation. Beyond this, GPs expressed ambivalence and concern about the broader impact of GenAI in primary care. Many were skeptical of its value and implications for their profession, while others remained uncertain or cautiously optimistic about its potential to transform healthcare.

Two years after the widespread introduction of generative AI, the ongoing lack of understanding and training among GPs remains a critical concern, potentially hindering effective and responsible implementation. Addressing these gaps through better, targeted education and structured integration efforts will be essential to harnessing the full potential of AI in primary care. Future research, particularly more extensive qualitative studies, is needed to provide a deeper, more nuanced understanding of GPs' evolving attitudes about, and experiences with, GenAI.

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Conflicts of Interest
CB is Associate Editor of JMIR Mental Health, and JT is Editor-in-Chief of JMIR Mental Health. The other authors declare no conflicts of interest.

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Abbreviations

Multimedia Appendix
Multimedia Appendix 1: Survey

Multimedia Appendix 2: CHERRIES (Checklist for Reporting Results of Internet E-Surveys)

Multimedia Appendix 3: Detailed information about the variables and their categories.

Multimedia Appendix 4: Raw qualitative data

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Supplementary Files

Figures

Themes and subthemes.

Theme	Subtheme
Unfamiliarity	- Lack of experience and knowledge - Need for training
Ambivalence and anxiety	- Mixed expectations - Diminished human connection - Skepticism about AI accountability
Role in clinical tasks	- Help with documentation - Questioning AI's clinical judgement - Operational uncertainty

Multimedia Appendixes

Survey.
URL: http://asset.jmir.pub/assets/02e966e993027c44009030a59da2c276.docx

Cherries.
URL: http://asset.jmir.pub/assets/73d5694ac7a9ab0bc6b7eb08ad1ca05d.docx

Detailed information variables.
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De-identified raw qualitative data.
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