AI IN HEALTHCARE

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EXPLORING NON-EXPERTS EXPERIENCES WITH UNDERSTANDING OF RADIOLOGICAL REPORTS WITH ASSISTANCE OF ARTIFICIAL INTELLIGENCE. INSIGHTS FROM POLISH STUDY

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ABSTRACT

Aims: This paper explores AI-powered tools in healthcare, focusing on their role in communicating MRI and CT scan results to patients from two groups: young adults and seniors. The study examines three research questions: 1. How do respondents perceive AI-simplified imaging reports in terms of usefulness and trust?; 2. What are the expectations of respondents regarding communication with professionals about the results of imaging scans?; 3. What are the intentions of respondents to use an AI-powered application for interpreting imaging results?

Methods: Two fictitious MRI reports were created to resemble standard radiological reports. AI-generated, layperson-friendly explanations of these reports were produced using ChatGPT-01 and presented as "leaflets" to respondents. An online survey was conducted, where participants first evaluated the standard MRI reports and then assessed the AI-generated versions using a five-point Likert scale.

Results: The final sample included 60 anonymous respondents (26 under 31, 34 aged 60+). The key findings: 1. Over half of both age groups struggled to understand at least one standard MRI report; 2. Over two-thirds of the respondents in the young adult group agreed with the statement that the information generated by AI for MRI Report 1 (leaflet 1) would be more informative than the presented "standard" report; 3. Young adult respondents trust artificial intelligence significantly less than respondents from the senior group; 4. In both analyzed groups, the majority of respondents declared that they would like to receive an explanation of the MRI reports from a doctor, similar to the format used in the leaflets; 5. In both groups, respondents declared high intention to use application for "explaining" the imaging reports. Due to convenience sampling and a limited sample size, results are not generalizable.

Conclusions: Many respondents valued AI-assisted explanations but preferred them as a supplement to discussions with medical professionals, reinforcing the need for AI implementation within trusted healthcare frameworks.

Keywords: AI in radiology, patient-centered communication, AI-generated MRI explanations

INTRODUCTION

The careful and properly managed integration of artificial intelligence (AI) into healthcare systems is seen as a way to empower the entire healthcare system, health professionals, and patients [1]. However, for many professionals and patients, AI implementation in medical care still seems like a distant concept, with little real impact on medical services so far. This situation, however, may change rapidly. For example, in radiology and breast cancer screening, the first large-scale trial in the United Kingdom, involving 700,000

women, began in 2025. In this trial, instead of the two radiologists previously required to review each screening, only one radiologist will be needed, as AI will assist by evaluating the images [2].

The primary objective of this paper is to enhance the understanding of the role AI-powered tools can play in the patient journey within medical healthcare. The empirical study and subsequent discussion focus on a specific issue: the role of AI at the stage where patients receive the results of MRI or CT scans. At this stage, patients often experience uncertainty in understanding the results and feel overwhelmed by medical terminology and jargon.

In patient-centered radiology, patients should be able to participate in the medical service process with full comprehension and access to relevant information. However, in many cases, when patients receive imaging reports, they are not assisted by medical professionals (e.g., radiologists or referring physicians) for various reasons. Often, patients download imaging reports from e-medical service platforms at home. Alternatively, when patients collect reports from a medical center, there is no standard procedure for consulting radiologists regarding the results. Even when patients have the opportunity to discuss their results with a referring physician during an in-person visit, there is often insufficient time for a comprehensive discussion of the imaging findings.

The limited opportunities for patients to discuss their imaging results with medical professionals lead to a situation where, instead of consulting healthcare specialists, patients often turn to online sources for information. Polish patients are no exception, as research conducted in Poland has shown that the Internet serves as an important source of health information. For example, the report *"Raport z badania ankietowego: Opieka koordynowana w POZ."* (2024) *(Report from the Survey: Coordinated Care in Primary Health Care, POZ)* indicated that even within coordinated primary healthcare, while almost 60% of patients do not consult their primary care physician's recommendations on online forums or social media, a significant portion still seeks online advice. Over 25% of patients reported doing so always, often, or sometimes for general recommendations, and approximately 28% for issues related to chronic illness [3]. Another study conducted in 2021 found that while Polish patients experiencing symptoms of a potential disease primarily consulted a doctor, the Internet was the second most common source of health information [4]. Pointing to the year in which the study was conducted is important, as the role of the Internet and new technologies in daily life has been changing significantly. A particularly notable shift occurred with the introduction of generative artificial intelligence – ChatGPT - to the public in November 2022, making advanced AI tools accessible to the general Internet user. This means that, since that moment, Internet users, including Polish patients, have gradually started seeking medical information not only from traditional online sources such as forums, websites, or social media but also from generative AI.

THEORETICAL BACKGROUND

The process of adopting new technology - in this case, the adoption of artificial intelligence by patients - depends on users' attitudes toward new technology. In the analyzed scenario, when patients turn to artificial intelligence, the factors shaping their attitudes toward AI are linked to the perceived usefulness of AI and the context in which it can be used. Below, these aspects are discussed in more detail.

THE POTENTIAL USEFULNESS OF AI TO ENHANCE THE PATIENT'S UNDERSTANDING OF IMAGING REPORTS

Patient experience with imaging reports encompasses various aspects, including understanding the report and self-management [5]. Regarding the understanding of imaging reports, a review of studies found that "*[g]lossaries, illustrations, lay summaries, lay reports, or lay conclusions all significantly improved participants' cognitive perception and perception of communication of radiology reports compared to traditional reports. Furthermore, these formats increased affective perception (e.g., reduced anxiety and worry), although only significantly for lay reports and conclusions*" [[6], p. 1]. As today's generative artificial intelligence can generate new content in response to different user prompts, it is tempting to think that AI could be helpful for patients struggling to understand imaging reports, such as MRI or CT scan reports, by generating an "explained version" that includes suitable glossaries, illustrations, or lay summaries, as indicated above. However, the crucial question is whether such explanations are accurate and, moreover, whether they pose any risk to patients' health.

Published scientific studies examining artificial intelligence as a tool for simplifying complex radiological jargon and making it more accessible to patients without a medical background indicate that AI can generate simplified versions of reports [7]. While the general evaluation of such reports in terms of correctness is positive, concerns remain regarding errors, including inaccuracies, missing information, and incompleteness in the simplified versions [8-9]. Artificial intelligence has also been evaluated in scientific studies as a generally useful tool, though its application requires caution, with research exploring its use in preoperative consultations for patients undergoing knee arthroplasty [10], its role in generating simplified answers to common questions about breast cancer screening and prevention [11], and its role in providing responses relevant to radiation therapy [12]. Regarding answers generated for medical professionals, a pilot

study indicated a limited ability of ChatGPT-3 to answer questions relevant to the daily clinical routine of radiologists [13].

CONTEXT IN WHICH AI IS USED

In high standards of radiological services and patient-centered care, effective communication is one of the pillars [14-15], and patients highly value communication and empathy in their evaluation of radiologists [16]. In the analysis of AI's role in communicating to the patient the results of medical imaging, the crucial question concerns the perspective from which this analysis is conducted: should AI-generated explanations of imaging reports support professional consultations, or should AI be viewed as a supportive tool used by patients themselves at home rather than in a professional environment?

At this moment, it seems difficult to recommend the use of AI in professional settings for several reasons, for example, as indicated above, AI-generated answers are not flawless, and there are also legal requirements related to medical procedures and data protection. However, the second perspective appears more practical and grounded in reality: as people become more familiar with AI in their daily lives (e.g., for education, dietary advice, or travel recommendations), they will naturally start using AI for medical self-care. In this second scenario, AI does not substitute for doctors' consultations but rather replaces online forums, social media, and, more generally, "Dr. Google." So far, there is limited knowledge about the potential benefits and risks of - metaphorically speaking - replacing "Dr. Google" with "Dr. ChatGPT."

However, it is worth noting that patients consulting artificial intelligence about their symptoms, particularly when AI provides suggestions on treatment options and the urgency of seeking professional medical care, can lead to severe health consequences. For example, a case study demonstrated a delayed diagnosis of a transient ischemic attack due to a patient’s reluctance to seek professional help after chatting with ChatGPT [17].

RESEACH QUESTION IN EMPIRICAL STUDY

An empirical study conducted in January and February 2025 in Poland aims to understand how AI-simplified reports are evaluated by non-experts in two age groups: young adults (30 years old and below) and seniors (over 60 years old). The study examines three research questions:

1. How do respondents from the young adults group and the seniors group perceive AI-simplified imaging reports in terms of usefulness and trust?
2. What are the expectations of respondents from the young adult and senior groups regarding how doctors explain imaging scan results, specifically compared to AI-generated simplified explanations?
3. What are the intentions of respondents from the young adults group and the seniors group to use an AI-powered application for interpreting imaging results?

Due to the novelty of the research questions investigated, the study was designed as exploratory; therefore, the results cannot be generalized to a larger population. The detailed procedure of the study is described below.

MATERIALS AND METHODS

Two fictitious MRI scan reports were created to resemble standard radiological reports while deliberately incorporating conditions that pose significant risks to patients if medical consultation is delayed. The first report described an extra-axial lesion with characteristics of a meningioma, which could potentially lead to blindness. The second report featured an aneurysm of the posterior communicating artery, highlighting a high risk of rupture. Both fictitious reports were evaluated as representative case studies of typical radiological reports by a radiologist with over 20 years of experience.

ChatGPT-01 was then used to generate layperson-friendly explanations of these fictitious MRI reports in the form of “leaflets.” However, for the second report, the prompt emphasized the need for a “child-like” presentation. The following excerpts illustrate how the leaflets were presented to respondents (translated from Polish)

First leaflet:

"[…] 1. What does the detected change mean?

Where is the change? At the front and on the right side of the head.

How big is the change? It is approximately 4 cm in length, 3.6 cm in width, and 1.6 cm in thickness.

Why is this important? The change is pressing on a nerve responsible for vision and is located near an important blood vessel. This could explain your headaches, dizziness, and vision problems.

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2. Other changes in the brain

Small traces of past vascular problems are visible in the brain. They are not dangerous and do not require treatment.

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3. What else was noticed?

A small trace of an old blood leak was found in the left part of the head. It is not serious.

The brain's ventricles, nerves, and most blood vessels appear normal.[…]"

Second leaflet:

"What did my head MRI reveal?

1. **Aneurysm**

What is it? It is a small bubble on a blood vessel in your head, measuring 8 mm.

Is it dangerous? It can be dangerous if it ruptures. Your doctor will tell you whether it needs further examination. […]"

The "leaflets" were checked and verified for the accuracy of information and their effectiveness in presenting the crucial elements of "typical" MRI reports. Then, an online questionnaire was created, tested on a small sample of respondents, and necessary changes were introduced. Finally, the questionnaire was distributed online. The steps of the online survey for respondents were as follows:

1. Respondents were presented with an explanation of the survey:
   "The aim of this study is to assess the extent to which artificial intelligence- specifically ChatGPT - can be useful for Polish patients receiving imaging results from magnetic resonance imaging (MRI) or computed tomography (CT) scans. The survey includes two examples of head imaging study descriptions (these are not descriptions of real patients) and their AI-generated equivalents. We kindly ask for your opinion on the usefulness of such information."
2. Respondents were first shown a fictitious MRI report designed to resemble a "standard" radiology report. They were clearly informed that the presented reports were not linked to real patients.
3. Next, they were shown an AI-generated, simplified version of the same report.
4. Respondents evaluated their experience with the reports using a five-point Likert scale based on provided statements.
5. The same evaluation procedure was conducted for a second fictitious MRI report.
6. Respondents answered a general question about their potential intention to use application based on AI.
7. The respondents were free to add additional information in the survey by answering an open-ended question about their comments related to the study.
8. Finally, respondents provided demographic information by selecting their gender (options: male,

female) and age bracket (options: 18–30 years, 31–40 years, 41–50 years, 51–60 years, 61–70 years, 71–80 years, 81 years and above).

The online survey was based on anonymous responses and a convenience sample using a snowball distribution method for sharing the survey link. Although the study focused on two target groups - adults below 30 years old and seniors above 60 years old - due to the survey's anonymity, the collected responses represented a range of different age groups.

RESULTS

In the survey, 74 anonymous respondents filled out the online questionnaire. However, as this study focused on the young generation (adults aged 30 years or younger) and the older generation (adults aged 60 years or older), the final sample consisted of 60 individuals. Among them, 26 were under the age of 30, and 34 were aged 60 or older. Within this sample, the gender distribution was 30 women and 30 men.

Due to the convenience sampling method and the small, limited number of respondents who participated in the survey, the gathered data cannot be generalized to a broader population (e.g., patients). Below is a presentation of the statistical analysis results for the group of respondents who took part in the survey.

THE UNDERSTANDING OF "STANDARD" MRI REPORTS

Over half of the respondents in the young adult group and over half of the respondents in the senior group indicated that one of the presented written standard language reports would not be fully understandable to them (Table 1). The potential difficulties in understanding the standard reports are also reflected in the median analysis (2 for the second report in the senior group and also 2 for the first report in the young adult group). There is no statistically significant difference between younger and older respondents regarding understanding of MRI Report 1 (Kruskal-Wallis Test, Chi-square = 0.0776, df = 1, Pr. > chi-square = 0.7806) and MRI Report 2 (Kruskal-Wallis Test, Chi-square = 0.4566, df = 1, Pr. > chi-square = 0.4992).

Table 1: Respondents' evaluation of the comprehensibility of fictitious 'standard' MRI reports

Statement evaluated by respondents	Negative evaluation 1-2 (% of respondents within the group)		Neutral evaluation 3 (% of respondents within the group)		Postivie evaluation 4-5 (% of respondents within the group)	
	Young adults	Seniors	Young adults	Seniors	Young adults	Seniors
MRI REPORT 1 The standard MRI report would be fully understandable to me.	53.85%	41.17%	0.00%	11.76%	46.14%	47.06%
MRI Report 2 The standard MRI report would be fully understandable to me.	38.46%	52.94%	23.08%	11.76%	38,46%	35.29%

Source: Author's own study

RELATIVE VALUE OF AI-GENERATED CONTENT: INFORMATIVENESS AND SIMPLICITY

Over two-thirds of the respondents in the young adult group agreed with the statement that the information generated by AI for MRI Report 1 (leaflet 1) would be more informative than the presented "standard" report, and over half of the senior respondent group expressed the same opinion for both leaflets. Overall, the evaluations of the statements were high, with a median of 4 for both reports in the senior group and a median of 4 for the first report in the young adult respondent group. There is no statistically significant difference between younger and older respondents regarding the evaluation of the informativeness of AI-generated leaflet 1 (Kruskal-Wallis Test, Chi-square = 0.5925, df = 1, Pr. > chi-square = 0.4414) and AI-

generated leaflet 2 (Kruskal-Wallis Test, Chi-square = 0.1598, df = 1, Pr. > chi-square = 0.6893).

An important aspect of the AI-generated leaflet is the simplicity of the conveyed information, which, at some point, may be perceived as "too simplified" by respondents. The AI-generated explanation of MRI Report 1 (Leaflet 1) was evaluated as too simplified by over half of the respondents in the senior group, while in the young adult group, this opinion was expressed by over 38%. In the evaluation of the simplicity of Leaflet 2, the situation was reversed, with over half of the younger respondents considering the report "too simple." For Leaflet 1, there is no statistically significant difference in the evaluation of simplicity between the young adult and senior groups (Kruskal-Wallis Test, Chi-square = 1.9152, df = 1, Pr. > chi-square = 0.1664). However, there is a statistically significant difference between both groups in the evaluation of simplicity for Leaflet 2 (Kruskal-Wallis Test, Chi-square = 5.4018, df = 1, Pr. > chi-square = 0.0201). In this analysis, the median evaluation for the young adult group is 4, while for the senior group, the median is 2.

Table 2: Respondents' evaluation of the informativeness and simplicity of AI-generated leaflets

Statement evaluated by respondents	Negative evaluation 1-2 (% of respondents within the group)		Neutral evaluation 3 (% of respondents within the group)		Positive evaluation 4-5 (% of respondents within the group)	
	Young adults	Seniors	Young adults	Seniors	Young adults	Seniors
LEAFLET 1 Information 1 generated by AI would be more informative for me, as a patient, than the standard report	15.38%	23.53%	23.08%	23.53%	61.54%	52.94%
LEAFLET 2 Information 2 generated by AI would be more informative for me, as a patient, than the standard report	23.07%	35.30%	38.46%	11.76%	38,46%	52.94%
LEAFLET 1 Information 1 would be too simplified for me.	38,46%	35,29%	23,08%	11.76%	38,46%	52,94%
LEAFLET 2 Information 2 would be too simplified for me.	0.00%	52,94%	23.08%	17,65%	53,84%	29,53%

Source: Author's own study

TRUST

The statements evaluated by respondents referred to the distrust they might feel toward AI-generated explanations. It turned out that distrust was much higher in the younger group of respondents than in the senior group. For both reports, over 60% of young adult respondents declared that they distrusted the AI-generated explanations, in contrast to over half of the senior respondents, who declared not having such distrust. There is a statistically significant difference between younger and older respondents regarding the trust with which they perceived the AI-generated leaflet 1 (Kruskal-Wallis Test, Chi-square = 10.8423, df =

1, Pr. > chi-square = 0.0010) and the AI-generated leaflet 2 (Kruskal-Wallis Test, Chi-square = 8.9503, df = 1, Pr. > chi-square = 0.0028). In the senior respondent group, the median evaluation for both reports was 2, while in the young adult group, the median evaluation for both reports was 4.

Table 3: Respondents' evaluation of trust in AI-generated information in the leaflets

Statement evaluated by respondents	Negative evaluation 1-2 (% of respondents within the group)		Neutral evaluation 3 (% of respondents within the group)		Postivie evaluation 4-5 (% of respondents within the group)	
	Young adults	Seniors	Young adults	Seniors	Young adults	Seniors
LEAFLET 1 I approach Information 1 generated by AI with distrust.	23.07%	52.94%	7.69%	29.41%	69.23%	17.64%
LEAFLET 2 I approach Information 2 generated by AI with distrust.	23,07%	52,94%	15.38%	29.41%	61.54%	17.64%

Source: Author's own study

COMMUNICATION EXPECTATIONS

In both analyzed groups, over 59% of respondents declared that they would like to receive an explanation of the MRI reports from a doctor, similar to the format used in the leaflets (Table 4). There is no statistically significant difference between the responses from the young adults group and the senior group for the evaluation of Leaflet 1 (Kruskal-Wallis Test, Chi-square = 0.4741, df = 1, p = 0.4911) and for the evaluation of Leaflet 2 (Kruskal-Wallis Test, Chi-square = 0.1885, df = 1, p = 0.6642).

Table 4: Respondents' evaluation of their expectations regarding communication with professionals.

Statement evaluated by respondents	Negative evaluation 1-2 (% of respondents within the group)		Neutral evaluation 3 (% of respondents within the gropu)		Postivie evaluation 4-5 (% of respondents within the group)	
	Young adults	Seniors	Young adults	Seniors	Young adults	Seniors
LEAFLET 1 I would like the doctor to explain the report to me in the same way as in Information 1 generated by artificial intelligence.	15.38%	29,41%	7.69%	5.88%	76.92%	64.70%
LEAFLET 2 I would like the doctor to explain the	7.69%	35,29%	30.77%	5.88%	61,54	59.43%

report to me in the same way as in Information 2 generated by artificial intelligence.						

Source: Author's own study

THE INTENTION TO USE THE AI APPLICATION

After evaluating the leaflets, respondents were asked whether they would like to use an application for explaining imaging results. Unfortunately, there was a lack of responses to this question, meaning that data was collected from 18 young adults (with 8 non-responses) and 30 seniors (with 4 non-responses).

All young adults in the study expressed a willingness to use such an application, rating the statement with 4 or 5 points. Similarly, the majority of respondents (60%) in the senior group shared this opinion. However, there is no statistically significant difference between the two analyzed group (Kruskal-Wallis Test, Chi-square = 1.4842, df = 1, Pr. > chi-square = 0.2231).

Table 5: Respondents' evaluation of their intention to use the AI-powered application.

Statement evaluated by respondents	Negative evaluation 1-2 (% of respondents within the group)		Neutral evaluation 3 (% of respondents within the gropu)		Positive evaluation 4-5 (% of respondents within the group)	
	Young adults	Seniors	Young adults	Seniors	Young adults	Seniors
If I were a patient, I would gladly use an application that "explains" MRI or CT scan results to patients.	0.00%	20.00%	0.00%	20.00%	100.00%	60.00%

Source: Author's own study

DISCUSSION

The willingness to use new technology begins with a positive attitude - the technology should be perceived as at least worth trying and, especially in medical care, as something that can be trusted and used safely, ensuring "no harm." In the empirical study presented here, it was found that young adult respondents (30 years old or younger) trust artificial intelligence significantly less than respondents from the senior group (60 years old and older). This surprising result can be interpreted from at least two perspectives.

First, it can be assumed that since young adults are more frequent users of social media, they are also more frequently exposed to disinformation, misinformation, and deepfakes in their daily social media interactions. For example, research on the UK market indicated that young people reported greater exposure to deepfakes compared to other age groups [18]. Although AI is not solely responsible for producing disinformation, its implementation in altering images, videos, and voices has significantly facilitated the creation of misleading content. Therefore, it is not surprising that when young respondents in the presented survey were asked about their trust in AI, they expressed distrust.

Considering the distrust young adult respondents have toward AI-generated content, this can be seen as a positive sign, given the widespread dissemination of health-related disinformation and misinformation (e.g., about vaccination, dieting, and disease prevention) on the Internet. Disinformation may also relate to the implementation of AI in medicine. One can envision how recent news about the use of artificial intelligence in breast cancer screening in the UK could be misrepresented online, leading to fear-inducing content. Patient education appears to be crucial in this context, emphasizing that they can trust AI in medicine, but the trust should be placed in reputable and reliable organizations implementing AI.

The second potential explanation for the finding that respondents from the senior group are more likely to trust the AI-simplified version of imaging reports is that the study ensured that the AI-generated leaflets accurately conveyed the key facts from the fictitious "standard" reports. Therefore, when respondents in the senior group evaluated the content of the leaflets, they had no basis for distrust in AI.

In the study presented in this paper, the findings suggest the need to create clear, informative, and personalized communication. In both respondent groups, the evaluation of the informativeness of AI-generated leaflets varied, however significant percentage of the participants rated highly the statements: "I would like the doctor to explain the report to me in the same way as in the information generated by artificial intelligence" and "Information generated by AI would be more informative for me, as a patient, than the standard report." The overall evaluation of respondents' answers suggests that while they would be willing to use AI-generated content, they prefer doing so in consultation with medical professionals. This notion was also reflected in the anonymous comments submitted in response to the general open-ended question regarding the survey, such as (translated from Polish):

- *I would like to receive AI-generated results that are additionally explained by a doctor.*
- *Doctors' descriptions are generally understandable when it comes to identifying where specific changes occur in the head. However, understanding what these changes mean is the most important part, and without medical knowledge, determining this is impossible, as it requires connecting all possible factors, including other coexisting diseases. I believe that, since this concerns health and life, the results should always require a detailed discussion with a doctor. There will be cases where artificial intelligence provides an accurate synthetic diagnosis, but every AI-generated description carries a margin of error.*
- *It's a nice idea, but unfortunately, artificial intelligence currently makes a lot of mistakes, so such an application would still need to be reviewed for accuracy by doctors first. The simplified descriptions from this survey do explain the purely 'technical' aspects more clearly, meaning what exactly is visible in the image. However, if someone is a complete layperson, reading about a 'bubble' in their head still won't help them understand what it actually means. Nevertheless, the idea is interesting. However, I would lean more toward increasing doctors' awareness that they need to communicate with patients like real people. A simple, short explanation from a doctor in plain language would be much more valuable than an AI-generated description (at least for me).*
- *AI is currently quite advanced, but at the same time, it is still far from reaching its full potential, which it could offer in the future. There are still frequent errors or shortcomings in its use, so for now, I would be quite cautious about relying on a medical opinion generated by AI. However, I believe this is a field worth developing, as it has significant future potential. Given the immense usefulness of artificial intelligence in most scientific fields, I think it is also worth advancing its application in medicine. As of today, I would like to see what AI has to say, but more as a supplementary tool, while still hearing a doctor's opinion rather than relying solely on AI.*

STUDY LIMITATION

The presented empirical findings should be regarded as the opinions and declarations of anonymous participants in the survey, and respondents' answers cannot be generalized to a larger population, particularly Polish patients.

As participation in the study was time-consuming and required strong engagement from respondents (including reading the standard scan report and subsequently reviewing the AI-generated leaflets), it can be assumed that anonymous participants who chose to take part completed the questionnaire sincerely, without distorting their opinions. Additionally, anonymity enabled respondents to freely express aspects such as difficulties in understanding standard reports.

CONCLUSION

It can be presumed that the study design provides qualitative insights into specific issues and challenges related to AI-supported image explanation for patients. It can also be seen as a first step toward better planning of future qualitative and quantitative research.

The conclusion from the empirical study and potential future aspects worth noting are presented in Table 6.

Table 6: Aspects of patient-centered radiology based on key empirical findings

Key findings from respondents	What is worth noting in patient-centered radiology from the perspective of the empirical findings?
Although respondents varied in their opinions on the informativeness of the evaluated AI-generated simplified version of "typical" fictitious scan results, some highly rated the AI-generated leaflets and considered them suitable for their communication needs.	At this stage of AI implementation, while patients may appreciate AI assistance, they primarily expect support from medical professionals.
Trust is a significant issue, with young respondents showing considerably less trust in AI-generated leaflets.	Education is key - not to instill fear about AI in healthcare, but to highlight that, at this stage, AI should be trusted only when supervised by medical professionals and implemented by reputable organizations.
Respondents declared that they would be interested in using the AI-powered app for "explaining" the imaging scan report	Although respondents declare a high intention to use the app, this finding should be interpreted through the lens of trust and the expected support from medical professionals.

Source: Author's own material

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