ScieniQ Publishers

Japan Journal of Medical Science

Research Article

Exploring by Generative AI the Issues Involved in Teaching Young Doctors about the Minds of Patients

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Received: 24 Sep 2024
Accepted : 28 Sep 2024
Published: 04 Oct 2024

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Abstract
Generative AI technology is revolutionizing medical education by providing realistic simulations to practice communication skills. Two new approaches are presented: asking questions, getting answers and creating new questions based on those answers, and using a town hall meeting with experts to discuss the importance of the doctor-patient relationship.

Keywords: Generative AI; Mind Genomics; patient-centered care; synthesized learning

Abbreviations
AI: Artificial Intelligence; ChatGPT: Chat Generative Pre-Trained Transformer

Introduction
In the past, doctors had the luxury of dedicating ample time to each patient, establishing personal connections and gaining a deep understanding of their individual health requirements. This personal connection often resulted in a more well-rounded approach to medicine, as doctors were able to identify underlying issues and provide more comprehensive care. Nevertheless, in the current landscape of medicine, financial factors have become more important than the bond between doctors and patients. With the need to maximize productivity and generate revenue, doctors are forced to see more patients in less time, leaving little room for the personal connection that was once so integral to medical practice. Consequently, numerous patients experience the sensation of being reduced to mere statistics on a chart, rather than being recognized as individuals with unique needs and concerns.

There has been a shift towards a more transactional approach to medicine due to the emphasis on financial considerations. Doctors are under pressure to bill for as many services as possible, often leading to unnecessary tests and procedures that may not be in the best interest of the patient. This profit-driven mind-set can compromise the quality of care, as doctors are incentivized to prioritize financial gain. The traditional doctor-patient relationship, built on trust and mutual respect, has been eroded in favor of a more business-oriented model that values profits above all else [1-4]. In addition to impacting the doctor-patient relationship, financial considerations have also played a role in the rising costs of healthcare. As doctors are pressured to see more patients in less time, there is a greater risk of misdiagnosis or oversight, leading to additional medical expenses down the line. Patients may be subjected to unnecessary treatments or medications, driving up healthcare costs without providing any real benefit. The financial burden of healthcare has become increasingly unsustainable for many individuals, as the cost of medical services continues to rise whereas the quality of care diminishes [5-7].

The emphasis on financial considerations has led to a rise in medical malpractice cases, as doctors are more likely to make mistakes under pressure to increase productivity. With less time to spend with each patient, there is a higher risk of miscommunication or misdiagnosis, which can have serious consequences for patient health. In the pursuit of profit, some doctors may cut corners or overlook important details, putting patients at risk and opening themselves up to potential legal liabilities. The erosion of the doctor-patient relationship has created challenges in establishing trust between patients and healthcare providers, resulting in a breakdown in communication and a lack of transparency in medical decisions [8-10]. Lately, the issue of financial considerations has not only impacted the doctor-patient relationship but has also had a notable influence on the overall culture of the medical establishment. These days, the healthcare industry seems to be more focused on financial outcomes and efficiency than ever before. As a result, there has been a stronger focus on implementing strategies to save costs and generate revenue. Shifting priorities can lead to significant consequences, with hospitals potentially prioritizing financial gains over patient safety and quality of care. Regrettably, the emphasis on monetary gain has overshadowed the fundamental principles of putting patients at the center of care and upholding ethical standards in the medical field. This change in focus has led to a culture where financial gains take precedence over the health and welfare of patients, even though this troubling truth is frequently ignored in polite discussions [11-13].

In today's medical landscape, the overwhelming influence of financial factors has significantly shaped the dynamic between doctors and patients, ultimately affecting the level of care delivered to individuals. The increas-

ing emphasis on productivity and financial gains has resulted in a decline in the personal rapport between doctors and their patients. This has given rise to a more transactional approach to healthcare, where profitability takes precedence over the well-being of patients. Given the current financial landscape of modern medicine, it is crucial for healthcare providers to reassess their priorities and reaffirm their commitment to patient-centered care and ethical practice. It is crucial to acknowledge and tackle the impact of financial incentives in order to restore the doctor-patient relationship to its rightful place at the core of medical practice.

Using AI to Generate Questions About How to Learn About the Patient

Generative AI technology has revolutionized the training of new doctors by providing realistic simulations of patient interactions. These simulations help new doctors develop their communication skills in a safe and controlled environment, gaining confidence and preparedness for real-life patient encounters. Simulations and synthesis allow new doctors to practice responding to various scenarios and learn how to navigate challenging situations. Guiding new doctors through simulated patient interactions is essential, providing structured feedback and guidance, identifying areas for improvement, and enhancing their communication skills. Simulating questions in a controlled environment allows new doctors to practice their communication skills and gather crucial information from patients. By synthesizing these simulated experiences with real-world knowledge, new doctors are better equipped to handle the complexities of patient care [14-16].

There are, however, potential issues, such as the risk of over-reliance on simulated experiences, as well as concerns about the accuracy and authenticity of simulated patient interactions. Despite these concerns, the value of using generative AI in medical education is undeniable, making it an essential tool for the next generation of healthcare professionals [17,18].

The foregoing introduces the first effort, using generative AI to provide questions regarding how one "knows" patients. Table 1A presents the instructions to the generative AI (ChatGPT 3.5, accessed through BimiLeap.com, the Mind Genomics platform, using the Idea Coach). In turn, Table 1B shows the 18 questions and analyses of these questions synthesized by the generative AI. The AI-generated material provides a tutorial to patient-facing individuals in the world of medicine.

Table 1A: Instructions given to the generative AI to provide questions about how to "know patients."

I am a new doctor, just graduating medical school. We had classes in how to "know the patient." We had some exposure to patients during our rotations. We did not have extended time with any patient, nor did we see any patient more than two times in our rotation.
With this in mind, please give me questions which will guide me to learn how to "know patients." These do not have to be questions to ask the patients, but rather what I should be thinking, asking, doing, so that I can quickly understand a patient. This effort will help make up for the lack of time with patients, and with my inexperience.

For each question, do the following:

1. Preface the question by the word (in capital letters): QUESTION, and in regular letters give me the question.
2. Tell me why the question is important, doing so in two sentences. Preface by the word IMPORTANCE.
3. Tell me what exactly to do to practice, even if I am not a patient, so I learn. Do this in two sentences. Preface by the word PRACTICE SUGGESTION.
4. Tell me what to expect from this activity. Preface by the words BENEFIT TO YOU.
5. Give me two slogans to keep this in mind. Preface by the word SLOGAN.

Creating a Self-Generating Learning Sequence

A previous paper on this topic of AI-generated knowledge presented a new approach, with generative AI posing a question, getting answers to the question, and then based on those answers creating a new question relevant to the same topic. The approach provided a way to synthesize the learning process by simulating and guiding a process of question-answer-question-answer, etc. In just a few minutes the process generated a set of five steps, finishing only when the AI appeared to run out of relevant questions [19]. The process has been replicated, as described in the next paragraph and in Table 2.

Table 2 shows the instructions given to the generative AI, this time simulating what might occur when a group of four medical students make morning rounds. Tables 3A-3I show the sequence of questions and answers. The process is straightforward, rapid, and requires only slight supervision, taking about 30 minutes to do manually from start to finish with Idea Coach in BimiLeap.Com, the Mind Genomics platform. When automated, the system might well produce a sequence of 10-20 questions/answers in a matter of minutes, and thus serve as a focused training tool, since it is the user who sets up the first questions.

A note of caution: When looking at the AI-generated results in Tables 3A-3I, the reader will note that although the AI was "instructed" to create paragraphs of a certain length, the AI considers this only as a "suggestion," often "doing its job" in fewer sentences. The AI does not provide irrelevant material to fill the space.

Table 1B: The 18 questions returned by the AI, showing the question, importance, and practice suggestions.

QUESTION 1: How does the patient prefer to communicate health information (verbally, written, visual aids)?
IMPORTANCE: Understanding the patient's preferred communication style can enhance doctor-patient relationship and improve patient understanding and compliance.
PRACTICE: Role-play scenarios with friends or family members, practicing different communication styles to see which is most effective.
BENEFIT TO YOU: Improved communication skills will help build trust with patients and lead to better patient outcomes.
SLOGAN: "Communication is key in-patient care." "Adapt your communication style to meet the patient's needs."
QUESTION 2: What cultural background does the patient come from?
IMPORTANCE: Cultural background can influence healthcare beliefs, practices, and attitudes towards treatment.
PRACTICE: Research common cultural norms and beliefs of different patient populations and reflect on how these may impact patient care.
BENEFIT TO YOU: Increased cultural competence will help you provide more personalized and effective care to patients from diverse backgrounds.
SLOGAN: "Embrace diversity in healthcare." "Cultural sensitivity leads to better patient outcomes."
QUESTION 3: What are the patient's personal goals and values?
IMPORTANCE: Understanding the patient's goals and values can help tailor treatment plans to align with what is important to the patient.
PRACTICE: Have open-ended conversations with friends or family about their goals and values to practice active listening and empathy.
BENEFIT TO YOU: Developing a patient-centered approach based on individual goals and values will lead to more patient satisfaction and engagement in their healthcare.
SLOGAN: "Empathy drives patient-centered care." "Patient values guide treatment decisions."
QUESTION 4: What is the patient's medical history?
IMPORTANCE: Understanding the patient's past medical conditions and treatments can provide valuable insight into their current health status and potential risk factors.
PRACTICE: Review hypothetical medical histories of patients and develop a structured approach to gathering and organizing this information.
BENEFIT TO YOU: Enhance your ability to assess a patient's medical background quickly and effectively.
SLOGAN: "Past is prologue." "Health is in the details."
QUESTION 5: What are the patient's chief complaints?
IMPORTANCE: Identifying the primary reason for the patient's visit can help prioritize your evaluation and treatment plan.
PRACTICE: Role-play with a peer where one person presents a chief complaint whereas the other practices asking pertinent follow-up questions.
BENEFIT TO YOU: Improve your ability to elicit important information from patients about their symptoms.
SLOGAN: "Focus on the focal point." "Listen to what matters most."
QUESTION 6: What social factors may be impacting the patient's health?
IMPORTANCE: Recognizing the influence of a patient's social environment on their health can help tailor a holistic treatment approach.
PRACTICE: Research common social determinants of health and consider how these factors may manifest in a patient's presentation.
BENEFIT TO YOU: Develop a more comprehensive understanding of the patient beyond their medical condition.
SLOGAN: "Health is more than biology." "Address the patients, not just the symptoms."
QUESTION 7: What is the patient's primary support system?
IMPORTANCE: Understanding who the patient relies on for emotional and physical support can guide discussions about treatment planning and resources.
PRACTICE: Reflect on your own support system and consider how it impacts your health and well-being.
BENEFIT TO YOU: Enhance your empathy and patient-centered care by recognizing the importance of social support in health outcomes.
SLOGAN: "Strength in connections." "Healing is a team effort."
QUESTION 8: How does the patient perceive their own health?
IMPORTANCE: Recognizing a patient's beliefs and attitudes towards their health can help establish rapport and build trust in the doctor-patient relationship.
PRACTICE: Write a reflective journal entry on your own health beliefs and consider how they influence your behavior and choices.
BENEFIT TO YOU: Develop a more empathetic and culturally sensitive approach to patient care.
SLOGAN: "Walk in their shoes." "Understanding leads to healing."
QUESTION 9: What are the patient's goals and values?
IMPORTANCE: Understanding what matters most to the patient can help align treatment plans with their personal preferences and priorities.
PRACTICE: Role-play scenarios where you discuss treatment options with a patient and practice eliciting their values and preferences.

BENEFIT TO YOU: Enhance your ability to provide patient-centered care and respect individual autonomy.
SLOGAN: "Listen to their heart." "Empathy drives healing."
QUESTION 10: How does the patient express their emotions?
IMPORTANCE: Recognizing how a patient communicates their feelings can help identify underlying emotional issues impacting their health.
PRACTICE: Watch videos or role-play scenarios where patients express emotions non-verbally, and practice interpreting these cues effectively.
BENEFIT TO YOU: Improve your ability to empathize with patients and address emotional aspects of care.
SLOGAN: "Silent stories speak volumes." "Emotions matter in health."
QUESTION 11: What are the patient's lifestyle habits?
IMPORTANCE: Understanding the patient's behaviors and habits can provide insight into potential risk factors for disease and opportunities for intervention.
PRACTICE: Consider your own lifestyle habits and how they impact your health, then research common lifestyle factors that influence health outcomes.
BENEFIT TO YOU: Develop a more holistic approach to patient care that considers lifestyle factors alongside medical conditions.
SLOGAN: "Habits make health." "Lifestyle is medicine."
QUESTION 12: What are the patient's cultural beliefs and practices?
IMPORTANCE: Recognizing the influence of culture on a patient's health beliefs and practices can help tailor treatment plans that are culturally sensitive and effective.
PRACTICE: Research cultural competence in healthcare and practice scenarios where you navigate cultural differences in patient care.
BENEFIT TO YOU: Enhance your ability to provide culturally competent care and respect diverse perspectives.
SLOGAN: "Diversity in health." "Cultural humility heals."
QUESTION 13: What are the patient's fears and anxieties?
IMPORTANCE: Addressing a patient's fears and anxieties can help build trust and facilitate open communication about their health concerns.
PRACTICE: Reflect on your own fears and anxieties related to healthcare and consider how you would want a provider to address them.
BENEFIT TO YOU: Improve your ability to empathize with patients and create a supportive environment for discussing sensitive topics.
SLOGAN: "Fear not the unknown." "Courage in care."
QUESTION 14: How does the patient make decisions?
IMPORTANCE: Understanding a patient's decision-making process can help tailor communication strategies and treatment plans that align with their preferences.
PRACTICE: Reflect on your own decision-making style and consider how different factors influence your choice.
BENEFIT TO YOU: Enhance your ability to engage patients in shared decision-making and support their autonomy in healthcare.
SLOGAN: "Choices define care." "Empowerment in decisions."
QUESTION 15: What motivates the patient to improve their health?
IMPORTANCE: Recognizing a patient's motivations can help tailor interventions and support strategies that are meaningful and sustainable for them.
PRACTICE: Reflect on what motivates you to make healthy choices and identify strategies that have been effective in maintaining your own well-being.
BENEFIT TO YOU: Improve your ability to empower patients in self-care and promote positive health behaviors.
SLOGAN: "Find their drive." "Motivation creates change."
QUESTION 16: What barriers may be preventing the patient from optimal health?
IMPORTANCE: Identifying obstacles to health can help develop targeted interventions and support systems to address these challenges.
PRACTICE: Consider hypothetical scenarios where patients face different barriers to healthcare access, and brainstorm creative solutions to overcome these obstacles.
BENEFIT TO YOU: Enhance your problem-solving skills and ability to advocate for patients facing structural or systemic barriers to health.
SLOGAN: "Break down barriers." "Access is essential."
QUESTION 17: How does the patient define quality of life?
IMPORTANCE: Understanding a patient's priorities and values can help guide discussions about treatment goals and interventions that align with their desired outcomes.
PRACTICE: Reflect on your own definition of quality of life and consider how different aspects of well-being contribute to your overall satisfaction and fulfillment.
BENEFIT TO YOU: Enhance your ability to deliver patient-centered care that focuses on improving quality of life and promoting overall well-being.
SLOGAN: "Life is the ultimate goal." "Quality over quantity."

QUESTION 18: What are the patient's hopes for the future?
IMPORTANCE: Acknowledging a patient's aspirations can help foster a positive outlook and provide motivation for making healthy choices and adhering to treatment plans.
PRACTICE: Imagine yourself in the patient's shoes and consider what hopes and dreams you would have for your future health and well-being.
BENEFIT TO YOU: Enhance your ability to inspire and support patients in achieving their goals and living their best life.
SLOGAN: "Hope is healing." "Dream big, live well."

Table 2: Instructions to the generative AI to create a sequence of questions/answers/questions.

Help me create a scenario where three medical students doing rounds together are asked a question, with each medical student providing an answer. Afterwards a synthesis of their answers is generated, followed by the new question. It is that new question which becomes the question which start the process again.

For the question presented above, do the following:

1. Write the word QUESTION: and then in regular letters, write the question.
2. For the question, write the word MEDSTUDENT1: and then give the answer that medical student 1 would give. Give only specifics, not general answers. When I read the answer, I know exactly what to think, what to say, what to do. Make the answer three sentences long, to describe the exact thing to say and the exact thing to do. When the answer is given, I know precisely what has to be said and done.
3. For the question, write the word MEDSTUDENT2: and then give the answer that medical student 2 would give. Give only specifics, not general answers. When I read the answer, I know exactly what to think, what to say, what to do. Make the answer three sentences long, to describe the exact thing to say and the exact thing to do. When the answer is given, I know precisely what has to be said and done.
4. For the question, write the word MEDSTUDENT3: and then give the answer that medical student 3 would give. Give only specifics, not general answers. When I read the answer, I know exactly what to think, what to say, what to do. Make the answer three sentences long, to describe the exact thing to say and the exact thing to do. When the answer is given, I know precisely what has to be said and done.
5. Now, synthesize the answers to the topic and write a paragraph of what you have learned about getting to know patients. Begin the paragraph with the words LEARNING: in capital letters. Make the paragraph four sentences and put in two slogans in quotes which summarize the learning. These are the fifth and the sixth sentences in this paragraph.
6. Keeping to the same topic, create a new question on this topic for the next iteration. Make sure it is the same topic. But create a new question on this topic, based upon the synthesis of the answers given by the three medical students. Start the sentence with the words NEW QUESTION: in capital letters, and then in small letters write the question that you just developed. Make sure that new question is true to the topic but evolved based upon the synthesis of the three answers to the old question.
7. Assume that there is discussion, pro and con, about the results and how the new question really connects with the question being answered. Start a sentence with the word DISCUSSION: in capital letters, and present arguments, pro and con, why the NEW QUESTION adds insight or is just irrelevant. What is the connection between the QUESTION: and the NEW QUESTION: Make this part five sentences long so that the people who look at the QUESTION and the NEW QUESTION learn to think better.

Table 3A: How do you approach getting to know a new patient?

QUESTION A: How do you approach getting to know a new patient?
MEDSTUDENT1: Ask open-ended questions to learn about their medical history and current concerns. Listen actively to their responses and show empathy towards their situation. Take notes on important details for future reference.
MEDSTUDENT2: Start by introducing yourself and explaining the purpose of the visit. Use reflective listening techniques to show understanding and validate their feelings. Develop a plan of care based on the information gathered.
MEDSTUDENT3: Take a holistic approach by considering the patient's physical, emotional, and social needs. Establish trust through effective communication and rapport building. Collaborate with the patient to set realistic goals and expectations for their treatment.
LEARNING: By actively listening and showing empathy, healthcare providers can better understand a patient's unique needs and concerns. "Building trust and rapport is essential for effective patient care." "A holistic approach considers all aspects of the patient's well-being."
DISCUSSION: The new question adds insight by highlighting the importance of addressing social and emotional factors in patient care. It emphasizes the interconnectedness of these aspects with one's physical health, leading to more comprehensive treatment plans. The connection between the initial question and the new question lies in the foundation of patient-centered care, which values understanding the whole patient for optimal outcomes.
NEW QUESTION: How can incorporating patient-centered care principles improve health outcomes for individuals with chronic conditions?"

Table 3B: How can incorporating patient-centered care principles improve health outcomes for individuals with chronic conditions?

QUESTION B: How can incorporating patient-centered care principles improve health outcomes for individuals with chronic conditions?
MEDSTUDENT1: By actively involving patients in decision-making, ensuring their preferences are considered in treatment plans, and promoting shared decision-making between patients and healthcare providers.
MEDSTUDENT2: Patient-centered care principles can lead to better treatment adherence, improved patient satisfaction, and ultimately, better health outcomes for individuals with chronic conditions.

MEDSTUDENT3: It is important to establish a strong rapport with patients, provide education on their condition and treatment options, and actively listen to their concerns and preferences to truly provide patient-centered care.
LEARNING: Through the answers provided by the medical students, it is evident that getting to know patients on a personal level, actively involving them in decision-making, and prioritizing their preferences and values are essential components of patient-centered care. "Listen, educate, collaborate" and "Patient-centered care leads to better outcomes" summarize the key takeaways from this exercise.
DISCUSSION: The new question builds upon the initial question and the answers provided by the medical students by focusing on the specific impact of patient preferences and values on treatment outcomes. By exploring this aspect in depth, we can gain a deeper understanding of how patient-centered care practices truly influence health outcomes. The connection between the initial question and the new question lies in the emphasis on patient involvement and personalized care, highlighting the importance of individualized approaches in healthcare.
NEW QUESTION: How can effectively incorporating patient preferences and values into treatment plans lead to improved patient outcomes in chronic disease management?

Table 3C: How can effectively incorporating patient preferences and values into treatment plans lead to improved patient outcomes in chronic disease management?

QUESTION C: How can effectively incorporating patient preferences and values into treatment plans lead to improved patient outcomes in chronic disease management?
MEDSTUDENT1: Ask the patient about their treatment goals and preferences. Collaboratively create a treatment plan that aligns with the patient's values. Continuously assess and adjust the plan based on the patient's feedback.
MEDSTUDENT2: Utilize shared decision-making to involve the patient in choosing treatment options. Educate the patient about the risks and benefits of each option. Emphasize the importance of adherence to the chosen plan.
MEDSTUDENT3: Use motivational interviewing techniques to explore the patient's motivations and barriers to adherence. Tailor the treatment plan to address the patient's individual needs and preferences. Encourage open communication to maintain a supportive relationship with the patient.
LEARNING: Getting to know patients on a personal level is crucial for providing patient-centered care. "Listen with curiosity, speak with honesty" and "Treat the patient, not just the disease" are key principles to keep in mind when incorporating patient preferences and values into treatment plans.
DISCUSSION: The new question expands on the importance of patient-centered care by emphasizing the role of the patient-provider relationship in improving outcomes. By focusing on communication and trust, providers can better understand and address the individual needs and preferences of their patients, leading to more successful treatment outcomes. The connection between the initial question and the new question lies in the overarching theme of personalized care and its impact on patient-centered outcomes.
NEW QUESTION: How can building a strong patient-provider relationship enhance the effectiveness of chronic disease management strategies?

Table 3D: How can building a strong patient-provider relationship enhance the effectiveness of chronic disease management strategies?

QUESTION D: How can building a strong patient-provider relationship enhance the effectiveness of chronic disease management strategies?
MEDSTUDENT1: Establishing trust and open communication with the patient is essential to ensure they adhere to treatment plans and follow-up appointments. Building rapport and showing empathy can help patients feel supported and motivated to take control of their health. Providing education and resources tailored to the patient's needs can empower them to make informed decisions about their care.
MEDSTUDENT2: Active listening and demonstrating respect for the patient's perspective can foster a collaborative approach to managing chronic diseases. Engaging the patient in shared decision-making can increase their commitment to self-care behaviors and treatment adherence. Offering ongoing support and encouragement can help patients navigate challenges and setbacks in their healthcare journey.
MEDSTUDENT3: Conducting regular assessments of the patient's understanding and preferences can help tailor treatment plans to meet their individual needs. Involving patients in setting realistic goals and tracking their progress can enhance their sense of ownership and satisfaction with their care. Providing timely feedback and encouragement can reinforce positive behaviors and promote sustained engagement in managing their chronic condition.
LEARNING: Getting to know patients on a personal level can strengthen the patient-provider relationship and improve outcomes in chronic disease management. "Listen with empathy and educate with compassion" and "Collaboration leads to better health outcomes" are key principles to guide interactions with patients in managing their chronic conditions.
DISCUSSION: Involving patients in decision-making and goal-setting can empower them to take an active role in their healthcare, leading to increased motivation and adherence to treatment plans. This evolution of the question highlights the importance of personalized care and patient-centered approaches in chronic disease management, emphasizing the significance of collaborative relationships in achieving positive health outcomes. However, some may argue that patient involvement in decision-making may be time-consuming and could potentially lead to conflicting opinions between patients and providers, impacting treatment efficacy. Despite potential challenges, the connection between the initial question and the new question lies in the mutual benefits of patient engagement and partnership in improving chronic disease management strategies.
NEW QUESTION: How can involving patients in shared decision-making and goal-setting enhance their sense of ownership and satisfaction with their chronic disease management?

Table 3E: How can involving patients in shared decision-making and goal-setting enhance their sense of ownership and satisfaction with their chronic disease management?

QUESTION E: How can involving patients in shared decision-making and goal-setting enhance their sense of ownership and satisfaction with their chronic disease management?
MEDSTUDENT1: Discussing treatment options with patients and empowering them to make informed decisions can help increase their sense of ownership in managing their chronic disease. Setting achievable goals together can also improve patient satisfaction and motivation to adhere to treatment plans.
MEDSTUDENT2: By actively involving patients in the decision-making process regarding their chronic disease management, they are more likely to feel a sense of ownership and responsibility for their health. Collaboratively setting goals with patients can also enhance their satisfaction and engagement in managing their condition.
MEDSTUDENT3: Shared decision-making and goal-setting empower patients to take control of their chronic disease management, leading to increased satisfaction and adherence to treatment plans. By involving patients in these processes, healthcare providers can strengthen the therapeutic relationship and improve health outcomes.
LEARNING: By involving patients in shared decision-making and goal-setting, healthcare providers can enhance patient ownership and satisfaction in managing their chronic disease. "Engaging patients in treatment decisions fosters a sense of empowerment and responsibility." "Collaborative goal-setting improves patient motivation and adherence to treatment plans."
DISCUSSION: The connection between the original question and the new question lies in the importance of patient involvement in decision-making and goal-setting in chronic disease management. The new question further explores the specific strategies and communication skills needed by healthcare providers to effectively engage patients in these processes. This adds insight by focusing on practical approaches to implementing shared decision-making in clinical practice.
NEW QUESTION: How can healthcare providers effectively communicate treatment options and involve patients in setting achievable goals to enhance patient satisfaction and ownership in managing their chronic disease?

Table 3F: How can healthcare providers effectively communicate treatment options and involve patients in setting achievable goals to enhance patient satisfaction and ownership in managing their chronic disease?

QUESTION F: How can healthcare providers effectively communicate treatment options and involve patients in setting achievable goals to enhance patient satisfaction and ownership in managing their chronic disease?
MEDSTUDENT1: Ensure the patient understands their diagnosis and treatment options in layman's terms. Use visual aids like diagrams or pamphlets to assist in educating the patient. Encourage the patient to ask questions and actively participate in decision-making.
MEDSTUDENT2: Schedule regular follow-up appointments to monitor progress and make necessary adjustments to the treatment plan. Set SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goals with the patient to track progress. Provide resources for additional support and education.
MEDSTUDENT3: Offer support in developing a personalized care plan based on the patient's preferences and lifestyle. Utilize motivational interviewing techniques to help the patient identify their goals and aspirations. Collaborate with other healthcare professionals and specialists to provide comprehensive care.
LEARNING: Understanding the patient's unique needs and preferences is essential for effective communication and goal-setting in chronic disease management. "Patient-centered care promotes shared decision-making and enhances treatment outcomes." "Effective communication builds trust and empowers patients to take ownership of their health."
DISCUSSION: The new question builds upon the importance of patient-centered care and personalized communication strategies discussed in the previous responses. By addressing the specific needs and preferences of each patient, healthcare providers can enhance patient satisfaction and improve treatment outcomes. This evolution from the initial question highlights the significance of individualized care and patient empowerment in chronic disease management. The connection between the old question and the new question lies in the continuous effort to improve patient-provider communication and enhance patient engagement in their healthcare journey. The new question adds insight by emphasizing the importance of adapting communication strategies to meet the diverse needs of patients with chronic diseases.
NEW QUESTION: How can healthcare providers effectively communicate treatment options and involve patients in setting achievable goals to enhance patient satisfaction and ownership in managing their chronic disease?

Table 3G: How can healthcare providers effectively communicate treatment options and involve patients in setting achievable goals to enhance patient satisfaction and ownership in managing their chronic disease?

QUESTION G: How can healthcare providers effectively communicate treatment options and involve patients in setting achievable goals to enhance patient satisfaction and ownership in managing their chronic disease?
MEDSTUDENT1: Medical student 1 would prefer simple language to explain treatment options, actively listening to the patient's preferences, and involving them in decision-making.
MEDSTUDENT2: Medical student 2 would recommend providing written materials for the patient to review at home, using visual aids to explain treatment options, and asking open-ended questions to gauge the patient's understanding.
MEDSTUDENT3: Medical student 3 would advise using motivational interviewing techniques to explore the patient's readiness for change, setting realistic goals together, and providing ongoing support and feedback.

LEARNING: Building rapport and actively engaging patients in their care leads to improved satisfaction and adherence. "Empower patients to take control of their health" and "Effective communication is key in patient-centered care."
DISCUSSION: The new question builds upon the importance of communication and involvement of patients in their care, highlighting the need for a strong patient-provider relationship. By focusing on trust and rapport, providers can create a supportive environment for patients to actively participate in their treatment decisions. The connection between the original question and the new question is clear, as both emphasize the role of patient-centered care in chronic disease management
NEW QUESTION: How can healthcare providers establish trust and rapport with patients to enhance collaboration in managing chronic diseases?

Table 3H: How can healthcare providers establish trust and rapport with patients to enhance collaboration in managing chronic diseases?

QUESTION H: How can healthcare providers establish trust and rapport with patients to enhance collaboration in managing chronic diseases?
MEDSTUDENT1: Ask open-ended questions about the patient's lifestyle and preferences to build rapport. Use active listening skills to show empathy and understanding. Provide clear explanations about the disease and treatment plan.
MEDSTUDENT2: Show genuine interest in the patient's well-being and concerns. Use non-verbal communication to convey empathy and support. Collaborate with the patient to set realistic goals for managing their disease.
MEDSTUDENT3: Demonstrate cultural competence and respect for the patient's beliefs and values. Involve the patient in decision-making and treatment planning. Use motivational interviewing techniques to empower the patient to take control of their health.
LEARNING: Establishing trust and rapport with patients is crucial for effective collaboration in managing chronic diseases. "Listen first, talk second" and "Put yourself in the patient's shoes" are key principles to remember in building a strong patient-provider relationship.
DISCUSSION: The new question builds upon the importance of cultural competence highlighted in the previous answers. Addressing cultural differences and diversity can enhance communication and trust between providers and patients, leading to better health outcomes. The connection between the original question and the new question lies in the recognition of individual differences and the need to tailor healthcare approaches accordingly. This evolution in questioning allows for a deeper understanding of the complexities involved in patient care for chronic diseases.
NEW QUESTION: How can healthcare providers effectively address cultural differences and diversity when working with patients to manage chronic diseases?

Table 3I: How can healthcare providers effectively address cultural differences and diversity when working with patients to manage chronic diseases?

QUESTION I: How can healthcare providers effectively address cultural differences and diversity when working with patients to manage chronic diseases?
MEDSTUDENT1: Ask the patient about their cultural beliefs and practices related to health. Use this information to tailor treatment plans to their cultural preferences. Provide educational materials in languages the patient understands.
MEDSTUDENT2: Build trust with the patient by showing understanding and respect for their cultural background. Collaborate with interpreters or cultural liaisons to ensure effective communication. Offer resources for culturally-appropriate support groups or services.
MEDSTUDENT3: Incorporate cultural competency training into healthcare provider education to improve sensitivity to diverse patient populations. Advocate for policies that promote inclusivity and diversity within healthcare organizations. Emphasize the importance of building relationships with patients based on mutual respect.
LEARNING: Learning to understand the cultural backgrounds of patients leads to better patient care and outcomes. "Cultural competence is essential for effective healthcare delivery." "Respecting diversity fosters trust and collaboration in patient-provider relationships."
DISCUSSION: The new question expands upon the previous topic by focusing on the implementation of cultural competence in healthcare settings. This question encourages reflection on how providers can actively promote inclusivity and respect for cultural diversity in their practice. The connection between the original question and the new question lies in the continuous improvement of patient care through cultural sensitivity and awareness.
NEW QUESTION: How can healthcare providers ensure that their practices are inclusive and respectful of diverse cultural beliefs and backgrounds?

The approach described aims to enhance critical thinking and decision-making skills in medical students by sequencing questions, answers, and synthesis. This structured method encourages deep thinking and collaboration among students, fostering a dynamic and iterative learning process. The emphasis on clarity and the imposed framework helps students develop clinical reasoning and decision-making skills, whereas the synthesis step consolidates individual perspectives.

One caution is important. The approach may be too structured for some students, limiting creativity and limiting the exploration of alternative approaches. The focus on specific actions and responses may also limit the depth of discussions. To improve the approach, it could be beneficial to incorporate more flexibility and open-ended discussion, allowing students to provide diverse responses and explore different perspectives. Additionally, incorporating reflection and self-assessment opportunities could deepen understanding and improve critical thinking skills. By balancing structure with flexibility and promoting a dynamic learning environment, this approach could better meet the diverse needs of medical students.

Creating a Question-And-Answer Meeting Using a Town Hall Simulation

The town hall approach is a valuable method for medical students to understand and empathize with patients. It involves group discussions, open discussions, and sharing insights to learn from each other's experiences and perspectives. This approach helps students understand the human side of medicine and the complex emotions and challenges patients face. By using AI to simulate real-life patient scenarios, students can improve their communication and empathy skills — practicing active listening, asking probing questions, and showing genuine compassion. This hands-on experience prepares them for future interactions and builds confidence in providing compassionate care. Additionally, the town hall approach encourages students to reflect on their biases and assumptions, fostering an empathic approach to patient care and a more inclusive healthcare en-

vironment. Table 4 shows the instructions given to the generative AI in order to create the town hall meeting. Tables 5A-5G show questions and answers generated by the AI, to simulate the output from the town hall meeting.

The town hall meeting by the MIDWESTCHESTER Medical Society introduces a new approach to engaging medical professionals and residents in community dialogue. This method involves doctors from different stages of their careers, providing a diverse range of perspectives on the doctor-patient relationship. This approach can help medical students, new graduates, fellows, and experienced doctors understand the nuances of patient care. It also highlights the practical aspects of healthcare delivery and reimbursement, which may be overlooked in traditional medical education settings. However, the specificity of the questions and rigid format of the responses may limit the depth of discussion and prevent a more organic exchange of ideas. The focus on individual doctors' responses may not fully capture the collective wisdom of the medical community. Future improvements could include more interactive elements, flexibility in response format, and patient involvement. Overall, the structured approach to understanding the doctor-patient relationship has the potential to offer valuable insights and perspectives.

Table 4: Instructions given to the generative AI to create a town hall meeting focusing on the relationship between the patient and the doctor.

It is 2026. The MIDWESTCHESTER Medical Society is proud to announce a town hall meeting where people can ask a variety of doctors associated with the society to answer questions about how doctors can better understand their patients.
The professional members answering questions at the meeting were all associated with the hospital.

- MEDSTUDENT is still in medical school
- Dr. NEWDOC just finished medical school and is interning at a local hospital in mid Westchester.
- Dr. FELLOW is in the middle of a fellowship in a chosen specialty.
- Dr. FIFTEEN has 15 years of medical experience after graduating medical school.
- Dr. FORTY has 40 years of medical experience after graduating medical school.
- MEDINSURANCE is the hospital's expert on medical insurance.

Create questions about how the doctor learns about the patient and gives better service to the patient.
For each question, do the following step, prefacing each step with the words in capital letters.

1. **QUESTION:** What is the question asked
2. **THINKING:** What was the person thinking who asked the question. Answer this in three sentences, with quotes to denote what the person was actually thinking.
3. **IMPORTANCE IN THE DR-PATIENT-RELATIONSHIP:** Why is the question important to medicine. Focus here on the general topic of the doctor knowing the patient (and vice versa), rather than on technical issues.
4. **DIFFICULTY:** How hard of a question is this to answer, and why is it hard or easy
5. **MEDSTUDENT:** What does MEDSTUDENT answer (in 3 sentences). Give only specifics, not general answers. When I read the answer, I know exactly what to think, what to say, what to do. Make the answer three sentences long, to describe the exact thing to say and the exact thing to do. When the answer is given, I know precisely what has to be said and done.
6. **DRNEWDOC:** What does Dr. NEWDOC answer… Same specifics as given to MEDSTUDENT
7. **DRFELLOW:** What does Dr. FELLOW answer… Same specifics as given to MEDSTUDENT
8. **DRFIFTEEEN:** What does Dr. FIFTEEEN answer… Same specifics as given to MEDSTUDENT
9. **DRFORTY:** What does Dr. FORTY answer… Same specifics as given to MEDSTUDENT
10. **MEDIINSURANCE:** What does MEDINUSRANCE answer… Same specifics as given to MEDSTUDENT
11. **SUMMING UP:** This question and the answers are going to be in the hospital guidebook. Please sum up this question and the different answers and tell me what it all means to a layperson.

Table 5A: Question — What steps do you take to really get to know your patients?

QUESTION A: What steps do you take to really get to know your patients?
THINKING: "I want to make sure my doctor sees me as an individual, not just a medical case."
IMPORTANCE IN THE DR-PATIENT-RELATIONSHIP: This question is important as it helps build trust between the doctor and patient, leading to better communication and ultimately better healthcare outcomes.
DIFFICULTY: This question is relatively easy to answer as it focuses on the foundation of the doctor-patient relationship.
MEDSTUDENT: "I try to actively listen to my patients and ask open-ended questions to understand their concerns and goals."
DRNEWDOC: "I schedule longer appointments to really get to know my patients and their medical history."
DRFELLOW: "I use empathy and mindfulness techniques to connect with my patients on a deeper level."
DRFIFTEEN: "I have developed an intuition over the years that helps me read between the lines of what my patients are saying."
DRFORTY: "I have seen many different patients with varying backgrounds, which has given me a broad perspective on how to connect with each individual."
MEDIINSURANCE: The hospital's medical insurance specialist answers, "Building strong doctor-patient relationships can lead to fewer misunderstandings and potentially reduce the risk of medical errors."

SUMMING UP: Understanding the patient is key to providing personalized and effective care. By actively listening, asking questions, building trust, and incorporating empathy, doctors can better understand their patients' needs and provide the best possible treatment. This information is crucial for patients to feel valued and cared for in their healthcare journey.

Table 5B: Question — How do you approach building trust with a patient?

QUESTION B: How do you approach building trust with a patient?
THINKING: "I want to feel comfortable and understood by my doctor."
IMPORTANCE IN THE DR-PATIENT-RELATIONSHIP: Trust is the foundation of a strong doctor-patient relationship, leading to better communication and care.
DIFFICULTY: Moderate, as building trust takes time and effort.
MEDSTUDENT: Emphasizes active listening and empathy in building trust.
DRNEWDOC: Dr. NEWDOC stresses the importance of being transparent and honest with patients.
DRFELLOW: Dr. Fellow highlights the significance of continuity of care in building trust.
DRFIFTEEEN: Dr. Fifteen emphasizes the importance of mutual respect and understanding in trust-building.
DRFORTY: Dr. Forty reflects on the role of experience and professionalism in establishing trust.
MEDIINSURANCE: The medical insurance specialist underscores the importance of trust in ensuring smooth healthcare transactions and patient satisfaction.
SUMMING UP: Trust is essential in the doctor-patient relationship, requiring active listening, honesty, continuity of care, mutual respect, experience, and professionalism to build strong, lasting connections with patients.

Table 5C: Question — How do you personalize treatment plans for individual patients?

QUESTION C: How do you personalize treatment plans for individual patients?
THINKING: "I want a doctor who sees me as an individual, not just another case."
IMPORTANCE IN THE DR-PATIENT-RELATIONSHIP: Personalized treatment plans consider the unique needs and preferences of each patient, enhancing the effectiveness of care.
DIFFICULTY: Challenging, as it requires understanding each patient's background, values, and goals.
MEDSTUDENT: Discusses the importance of considering patient preferences and lifestyle in treatment planning.
DRNEWDOC: Dr. NEWDOC advocates for shared decision-making with patients to tailor treatment plans.
DRFELLOW: Dr. Fellow focuses on the role of evidence-based medicine in guiding personalized treatment approaches.
DRFIFTEEEN: Dr. Fifteen emphasizes the importance of taking into account a patient's history and experiences in treatment planning.
DRFORTY: Dr. Forty reflects on the evolution of personalized medicine in improving patient outcomes.
MEDIINSURANCE: The medical insurance specialist highlights the benefits of personalized treatment in optimizing healthcare resources and patient satisfaction.
SUMMING UP: Personalized treatment plans involve considering patient preferences, lifestyles, histories, and evidence-based practices to provide individualized care that promotes better outcomes and patient satisfaction

Table 5D: Question — How can doctors better understand a patient's cultural background and beliefs?

QUESTION D: How can doctors better understand a patient's cultural background and beliefs?
THINKING: "I want my doctor to be able to understand my beliefs and practices so they can provide more personalized care."
IMPORTANCE IN THE DR-PATIENT-RELATIONSHIP: This question is crucial in fostering a strong doctor-patient relationship and ensuring that patients receive culturally competent care.
DIFFICULTY: This question may be challenging to answer as it requires doctors to be aware of their own biases and actively seek to learn about different cultures.
MEDSTUDENT: Emphasizes the importance of cultural competence in medical training and the value of empathy in understanding diverse patient populations.
DRNEWDOC: Discusses the role of cultural competency training in medical school and how it has impacted their approach to patient care.
DRFELLOW: Highlights the ongoing need for cultural humility and the importance of listening to patients' unique perspectives.
DRFIFTEEN: Shares insights on how they have developed cultural competence over their years in practice and the benefits it has brought to patient care.

DRFORTY: Reflects on the evolution of cultural competence in medicine over their extensive career and how it has enriched their interactions with patients.
MEDIINSURANCE: Explains how cultural competence can lead to better health outcomes and lower healthcare disparities among diverse patient populations.
SUMMING UP: Understanding a patient's cultural background and beliefs is essential in providing personalized and effective healthcare. The doctors' responses highlight the ongoing importance of cultural competence in medicine, ultimately benefiting patients in Midwestchester and beyond.

Table 5E: Question — How do doctors approach difficult conversations with patients, such as end-of-life care or sensitive medical issues?

QUESTION E: How do doctors approach difficult conversations with patients, such as end-of-life care or sensitive medical issues?
THINKING: "I want to know how doctors handle tough topics so they can communicate effectively and support me through challenging medical situations."
IMPORTANCE IN THE DR-PATIENT-RELATIONSHIP: This question is critical in building trust between doctors and patients, especially when discussing sensitive topics that may impact a patient's well-being.
DIFFICULTY: This question may be complex to answer as it involves emotional intelligence, empathy, and effective communication skills in navigating difficult conversations.
MEDSTUDENT: Emphasizes the importance of active listening, empathy, and compassion in approaching challenging discussions with patients.
DRNEWDOC: Shares insights on their experiences with difficult conversations in residency and how they are continuously learning to communicate more effectively.
DRFELLOW: Discusses the value of interdisciplinary collaboration and patient-centered care in addressing sensitive topics with patients.
DRFIFTEEN: Reflects on their years of experience in handling difficult conversations with patients and the importance of building a supportive patient-doctor relationship.
DRFORTY: Shares wisdom gained over four decades of medical practice in navigating tough conversations with patients and providing compassionate care.
MEDIINSURANCE: Explains how effective communication strategies can improve patient satisfaction and health outcomes, especially in challenging medical situations.
SUMMING UP: Addressing difficult conversations with patients requires doctors to demonstrate empathy, active listening, and compassion. The doctors' responses underscore the importance of communication skills in providing high-quality care and supporting patients through sensitive medical issues.

Table 5F: Question — How do doctors ensure a patient's preferences and values are incorporated into their treatment plans?

QUESTION F: How do doctors ensure a patient's preferences and values are incorporated into their treatment plans?
THINKING: "I want my doctor to consider my individual preferences and values when creating a treatment plan that best suits my needs."
IMPORTANCE IN THE DR-PATIENT-RELATIONSHIP: This question emphasizes the importance of patient-centered care and shared decision-making in ensuring that healthcare decisions align with a patient's values and goals.
DIFFICULTY: This question may present challenges as it requires doctors to actively involve patients in their care and respect their autonomy in decision-making processes.
MEDSTUDENT: Highlights the significance of shared decision-making, informed consent, and respecting patient autonomy in tailoring treatment plans to individual preferences.
DRNEWDOC: Discusses the importance of building a trusting relationship with patients to understand their values and preferences, ultimately leading to more personalized care.
DRFELLOW: Emphasizes the role of patient education, communication, and empathy in incorporating patient preferences into treatment plans.
DRFIFTEEN: Shares insights on their experiences with patient-centered care and how they have honed their skills in aligning treatment plans with individual values over their years in practice.
DRFORTY: Reflects on the evolution of patient-centered care throughout their career and the profound impact of incorporating patient preferences into treatment decisions.
MEDIINSURANCE: Explains how patient engagement and shared decision-making can improve treatment outcomes and patient satisfaction in healthcare settings.
SUMMING UP: Involving patients in treatment decisions and respecting their values is fundamental in providing personalized and effective healthcare. The doctors' responses underscore the significance of patient-centered care and shared decision-making processes in ensuring that treatment plans align with individual preferences and goals.

Table 5G: Question — How can doctors better communicate with patients who speak different languages?

QUESTION G: How can doctors better communicate with patients who speak different languages?
THINKING: Resident A says publicly that "I often have trouble understanding my doctor because English is not my first language. I wish there was a way for doctors to better communicate with patients like me."
IMPORTANCE IN THE DR-PATIENT-RELATIONSHIP: This question is important because effective communication is crucial for a successful doctor-patient relationship, especially when language barriers exist.
DIFFICULTY: This question may be challenging to answer as it requires implementing language interpretation services and cultural competency training for doctors.
MEDSTUDENT: Suggests implementing interpreters and utilizing technology for translation services.
DRNEWDOC: Emphasizes the importance of cultural sensitivity and developing communication skills to bridge language gaps.
DRFELLOW: Discusses the benefits of having multilingual staff and cultural competency training programs within the medical practice.
DRFIFTEEEN: Highlights the need for comprehensive language services and building trust with patients from diverse backgrounds.
DRFORTY: Shares experiences of working with interpreters and adapting communication strategies throughout their career.
MEDIINSURANCE: Talks about the coverage policies for language interpretation services and resources available to assist patients.
SUMMING UP: Effective communication with patients who speak different languages is essential to providing quality healthcare. The hospital should prioritize language access services and cultural competency training to ensure all patients feel heard and understood.

Discussion and Conclusion

The medical industry has been influenced by financial considerations, leading to a shift towards transactional approaches, resulting in patients feeling like mere numbers on a chart. This has led to rising healthcare costs, increased risk of misdiagnosis, and increased malpractice cases. Trust in healthcare providers has been eroded, leading to communication breakdowns and lack of transparency in medical decisions. Generative AI technology is revolutionizing medical education by providing realistic simulations to practice communication skills. Two new approaches are presented: asking questions, getting answers, and creating new questions based on those answers, and using a town hall meeting with experts to discuss the importance of the doctor-patient relationship. However, future improvements could include more interactive elements, flexible response formats, and patient-centered discussions.

Acknowledgements

The authors acknowledge the help of Ms. Vanessa Marie B. Arcenas for her ongoing support to create these papers, and her enthusiastic participation in the project of AI-enhanced Mind Genomics. The authors also wish to thank Ms. Isabelle Porat for her help in preparing this manuscript for publication.

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Cite this article: Howard R. Moskowitz, Sunaina Saharan, Stephen D. Rappaport, and Sharon Wingert. (2024) Exploring by Generative AI the Issues Involved in Teaching Young Doctors about the Minds of Patients 5 (1): 185-197.

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