

HI, I'M DR. CHATBOT!

EXPLORING THE RELATIONSHIP BETWEEN CHATBOTS AND CUSTOMERS IN THE HEALTHCARE CONTEXT

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Abstract

This paper investigates the role of chatbots in the healthcare and wellbeing realm, focusing on how chatbot design elements affect customer interaction, trust, and satisfaction. Using a mixed-method approach, the study first employs focus groups to explore users' perceptions and expectations of health chatbots. The insights from these focus groups will guide two experimental studies for examining how specific chatbot attributes, such as anthropomorphism and perceived empathy, influence education, activation, engagement, and empowerment along the life-long journey of people. The research contributes to the emerging literature on digital marketing, providing actionable guidelines for healthcare and wellbeing services' providers on optimizing chatbot design to improve customer experience and enhance satisfaction, loyalty and outcomes.

Keywords: health, chatbot, trust, mixed-method

1. Context and aim of the research

Digital health, encompassing AI, IoT, telemedicine, and self-service technologies like chatbots, has revolutionized healthcare interactions, improving access and communication between patients and providers. Common patient engagement platforms (PEPs) include mobile apps, portals, and chatbots, enabling users to connect via smartphones, tablets, and computers. Chatbots, specifically, can facilitate healthcare access, assist with remote services, and support tasks like medication adherence and teleconsultations (Ramesh & Chawla, 2022; De Rosis et al., 2016; De Rosis, 2018). Despite their growing use in sectors like healthcare, the role of chatbots in enhancing patient-provider relationships remains under-researched. Key areas for further study include chatbot communication roles, design impacts on user trust, and criteria for evaluating chatbot interactions.

2. Theoretical background and hypothesis development

Modern health emphasizes overall wellness, focusing on education, activation, engagement, and empowerment to encourage individuals' active role in managing their health (Pennucci et al., 2022). This framework promotes experiential learning, daily health behaviors, involvement in health decisions, and autonomy through social support. By centering on users' needs and long-term relationships, healthcare services aim to enhance preventive care and well-being outcomes. Digital tools, like chatbots, may play a role in facilitating these goals, fostering collaboration between individuals, providers, and communities for sustained health improvement.

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This study aims to explore which design cues (like anthropomorphism) and perceived attributes (such as usefulness and empathy) enhance chatbot-customer relationships in healthcare. Using Pennucci et al.'s (2022) framework, it examines how these chatbot features can support health education, activation, engagement, and empowerment to improve well-being. Additionally, the study investigates how these design elements affect customer trust and satisfaction during chatbot interactions.

3. Methodology and preliminary results

The study adopts a mixed-method design, beginning with a focus group (Study 1) to explore customer willingness to interact with health chatbots and identify characteristics that either support or inhibit these interactions. This qualitative approach leverages group dynamics for richer insights into complex factors influencing user trust, satisfaction, and experience. Findings from Study 1 will inform two experimental studies (Studies 2 and 3) to test specific chatbot features that impact health education, activation, engagement, empowerment, trust, and satisfaction, as well as potential mechanisms like perceived warmth, competence, and empathy.

The preliminary results of Study 1, based on an online focus group with seven participants (average age 26.7), reveal a general willingness to use chatbots for simple tasks like booking appointments but hesitation for complex medical advice. Participants were open to using chatbots for preventive care, common symptoms, and even chronic condition monitoring, suggesting potential peer-to-peer influence in promoting chatbot use. Key factors for trust and satisfaction included design (serious for healthcare, stylized for wellness), flexibility (especially voice commands for older adults), ease of use, immediate responses, transparency about information sources, and personalization. Concerns about privacy and finding the right balance between warmth and competence were also highlighted.

4. Conclusions and implications

This research explores key factors, such as design, personalization, and trust, that influence customer responses to health chatbots, particularly around trust, satisfaction, and user experience. Study 1 highlights the need for tailored chatbot designs, transparency, and flexible interaction styles to improve customer interactions. These findings offer healthcare providers actionable insights on integrating chatbots effectively to boost patient engagement and satisfaction, providing guidelines to optimize chatbot use without compromising user experience.

References available upon request