

An Examination of the Influence of ICT on Patient Co-Creation in Healthcare Service Delivery at the Micro Level

Kofi Osei-Frimpong, Ghana Institute of Management and Public Administration
Alan Wilson, University of Strathclyde
Fred Lemke, Newcastle University

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Research Question

This study provides an empirical perspective of the influence of online health information search on patient co-creation in healthcare service delivery at the micro level. The study primarily sheds light on the influence of information seeking on the clinical encounter process and how this cumulatively impacts on the expected service outcomes. The following research questions are addressed:

1. How do patients search for information and what motivates them to seek health related information?
2. What impact does online information seeking have on patients' engagement in healthcare clinical encounters?
3. How is co-creation modeled in healthcare to ascertain the cumulative effects of ICT on the expected outcomes at the micro level?

Method and Data

Mixed methods specifically sequential exploratory design was employed in this study, involving a qualitative phenomenological approach in the first phase followed by a quantitative survey design. Semi-structured depth interviews were conducted with 20 outpatients and 7 doctors who were purposively selected in two public hospitals in Ghana. The interview questions aimed at exploring patients' use of online resources in seeking healthcare information and the motivations they have for searching for information prior to their visit to the hospital. Further questions were asked to provide a clear understanding of the consultation process and how their pre-encounter information search influenced such clinical encounters. On average, each interview lasted about 50 minutes. Interviews were audio-recorded with the permission of the respondents, transcribed and analyzed. The findings of the qualitative study together with the literature led to the development of a model that was tested quantitatively employing a survey research design in the second phase of the study. By employing a systematic random technique, a survey involving 360 outpatients from 20 randomly selected public health facilities in the Accra and Tema metropolitan areas in Ghana were interviewed using a structured questionnaire. Data was analyzed using SEM AMOS 21.

Summary of Findings

The study provides insight into the influence of online health information search on the encounter process, examining pertinent variables of interest, which have not been empirically examined in previous research. The qualitative study resulted in the following themes: pre-encounter information seeking, nature of interactions, shared decision-making (SDM), provider-patient orientation, commitment to compliance, and improved service engagement. These themes were categorized into three main stages of the clinical encounter notably; pre-encounter stage (pre-encounter information seeking); encounter process (nature of interactions, shared decision-making (SDM), provider-patient orientation); and expected

outcomes (commitment to compliance, and improved service engagement). This led to the development of a model whose validation was supported by the results of the quantitative survey, highlighting the various important elements in the consultation process. The encounter process elements aided by increased access to online information were found to impact on service outcomes including increased commitment to compliance and service engagement. The results indicate no significant effect of provider-patient orientation on patient's commitment to compliance, which could be a result of the fact that, patients' consider other factors other than just the provider orientation in the consulting room when it comes to compliance.

Key Contributions

The study provides an empirical understanding of how patients are avid for health related information, which is brought to bear in consultations and the effective integration by the doctor. We present a model that integrates multiple research disciplines from a theoretical perspective (e.g., access to information, information seeking and knowledge creation, healthcare consultation models) and extends research on patient integration, participation, and co-creation of value. Our conceptualization and findings suggest that the dependence of technology in promoting healthcare transformations and the participation of patients in consultations is unparalleled. Access to information and knowledge acquisition empowers patients to actively participate in clinical encounters, understand the service orientation, and suggest options in relation to the treatment plan. This suggests that the patients' role in value co-creation is essential leading to possible improved outcomes. It is therefore, incumbent on actors to play their respective roles in service encounters to ensure effective integration of resources. This brings to the fore the importance of understanding the emerging roles of today's patient, and how this could influence the service outcome. Our findings, thus, contribute to the value co-creation literature and further provide an understanding of the influence of technological advancements on healthcare delivery at the micro level.