The Role of Seha's Telepharmacy in Meeting Patient Expectations for Medication Counseling

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ABSTRACT

This study examines Seha's telepharmacy service, focusing on its role in meeting patient expectations for medication counseling. The objective of the studyincludes measuring patient satisfaction, knowing the efficiency of telepharmacy in increasing the access level, and measuring the quality of counseling. Self-administered questionnaires were employed to collect data for the satisfaction and counseling from participants and results were analyzed using quantitative research findings. Furthermore, the findings obtained have noted high levels of patient satisfaction owing to telepharmacy and noted the enhanced convenience experienced by patients. Still, the following points of concern were raised concerning personalised communication. Altogether, Seha's telepharmacy is sufficiently satisfactory to meet the patient expectations, and can be considered as a beneficial remote substitution to the medication counseling in healthcare.

Keywords: telepharmacy, medication, personalized, role.

1. INTRODUCTION

Telepharmacy service gives patients professional consultations on medication without having to travel to a physical health facility through the mobile platform of Seha in Saudia Arabia. Telepharmacy has emerged to be critical due to more advancements in digital technology making healthcare more available especially to patients in areas of Geographical isolation or lack of mobility (Al-Worafi, 2024). This service corresponds to the global development of telehealth services that have experienced rapid growth as health services continue to shift away from traditional in-person services that are convenient and safe especially during and after COVID-19 outbreak (AlWatban et al., 2024).

An important component in patient care, medication counseling would be equally effective if not more with the help of telepharmacy since it helps patients understand the use of the prescribed medication, any side effects, or how closely they need to stick to the use of the medication (Majrashi, 2023). Since patients are becoming more demanding with the help of convenient and efficient telepharmacy services, telepharmacy fills the bill. Still, there are concerns as to how much telepharmacy effectively addresses the issues of personalization and quality required in serving patients (Alghamdi& Alghamdi, 2022).

The purpose of this research is to measure the extent to which the satisfactions, counseling and access services of Seha'stelepharmacy were able to fulfil its patients' expectations. It also aims at filling gaps to increase the perceived value of telepharmacy to be a minimum of the value that actual physical consultations offer.

2. LITERATURE REVIEW

2.1 Telepharmacy in the Middle East

Telepharmacy has become popular within the Middle East specifically to areas characterized by numerous rural residents and paucity of the overall health care facilities. Telehealth has already been established in some countries as part of a general drive towards the modernization of health care, as is the case with Seha in

countries such as the Saudi Arabia (Hanach,2024). Telepharmacy has indicated that medication counseling can be effectively delivered through a model in the Saudi Arabia hence improving on the exposure of people to healthcare professionals especially in areas that have little or no health care providers (Sha'aban et al., 2021). Telepharmacy systems have been integrated into hospitals, clinics and home care service delivery whereby patient's medication advice is received from an expert electronically (M Tourkmani et al., 2023).

Seha, the largest healthcare network in the Saudi Arabia has been on the frontline to implement the above to ensure that patients are helped to manage their medications through telepharmacy. This is very important especially in a region that has some of the highest incidences of chronic diseases such as diabetes, hypertension and cardiovascular diseases (Aljohani, 2022). Telepharmacy from Seha ensures that timely and efficient counseling is offered on client response eliminating long distances to obtain pharmacy services (Ali et al., 2023).

2.2 The Importance of Medication Counseling

Counselling on Medication is central in healthcare, as patients have to comprehend how to use the medications properly, effects of the drug and any changes required in behaviour and habits to enhance their lives (Dores et al., 2023). The right counselling approaches have been known to increase compliance rate with medication, decrease incidences of medication errors and boost patient satisfaction. This is particularly important with chronic disease patients because failure to adhere to medication regimens results in frequent hospitalization and high costs (Cavicchi&Vagnoni, 2020).

Telepharmacy solves this problem if patients get counseling by development and licensed pharmacists without the possibility of direct contact with healthcare facilities. It has been observed that this technology enhances the medication management process and medication-related issues can effectively be prevented with it; not to mention telepharmacy brings patient counseling to the comfort of their homes/vans without physically visiting the pharmacists (De Guzman et al., 2022). This model self is especially helpful for elderly patients or patients with limited mobility, and those in the rural areas where access to such specialty pharmacy services is quite challenging (Anosike et al., 2020).

2.3 Telehealth's Effectiveness in Improving Patient Outcomes

Many researches have proved that telehealth which also covers telepharmacy significantly enhanced patient results, clients' ease of access to services and general satisfaction. Telehealth services have been presented to increase patient access and expedite care delivery while also increasing patient satisfaction regarding where and when to seek medical consultation (Greenup& Best, 2023). Such advantages can be applied to medication counseling, as getting prescribes and recommendations is possible in remote manner, that can increase patients' adherence to disease management (Hussain, 2023).

Also, research has shown that clinical benefits can also be obtained through telepharmacy. Telepharmacy intervention finally increased the rate of medication compliance as well as customers' satisfaction towards pharmacy services (Veena&Gowrishankar,2023). Expanding telepharmacy services improved the capacity of pharmacists in solving medication-related problems, and the community's overall health status was optimized together with the minimization of costs (Badreldin et al., 2020).

2.4 Challenges in Telepharmacy

However, several issues hinder the efficiency of telepharmacy most of the time. The roles of technology also pose one major concern. In general, telehealth systems are recognised as rather effective although they depend on the availability of internet connection, which may be sporadic in some areas of the Middle East (Almetwazi et al., 2020). In addition, patients may have some problems or issues with technology which may make them frustrated or to decide not to adhere. Another problem is data privacy and protection of the patient's information (Balkhi et al., 2020). It can be said that telepharmacy is very much dependent on the use of electronic communication and in the event of a violation of privacy, the telepharmacy service might receive a setback in confidence. The Saudi Arabia has strong laws for protecting data and customer information, however these laws prove cumbersome to the effective implementation of telepharmacy solutions (Al-Worafi,2024).

However, patient compliance continues to be a serious problem in telepharmacy. Implementing bedside telemedicine is convenient for the patients but again they do not stick to taking their medications as prescribed or even follow up appointments with counselors (MAJRASHI, 2023). In addition, since patients with nonadherence disorders do not experience the direct effects of their behavior, telepharmacy actors require difficulty in tracking consumers and motivating them to stay compliant to ensure that the pharmacotherapy counseling remains relevant (Alghamdi& Alghamdi, 2022).

3. METHODS
3.1 Research Design
This research adopts a qualitative research approach and involves the analysis of secondary data in the assessment of Seha'stelepharmacy service. Thus, particular attention is given to the assessment of the performance of the service in terms of patients' needs for medication counseling. Secondary data collection is usually done through a literature review of published literatures, reports and any related work on telepharmacy, patient satisfaction and or outcomes of telehealth. This approach gives a broad perspective on the current state of telepharmacy within Seha's region from different literature creating a rich picture view.

3.2 Data Collection
The data for this work were obtained from a literature search involving academic journals, government documents, healthcare reports, and previous studies on telepharmacy and patient counseling. Population-based studies, medical case reports and articles in peer-reviewed journals were searched on PubMed and Google scholarship and through research archives. In choosing the literature, the authors sought articles that concerned themselves with telepharmacy services in the Middle East, especially those of Seha.

3.3 Data Analysis
Thematic content analysis was used on the data, a technique widely used to review and derive patterns, themes and insights from data collected via qualitative means. Thematic analysis was used to examine place identity, telepharmacy service prospects, and Telepharmacy's efficacy for counseling. These included access and technology, patient involvement, and quality of counselling was coded for the analyzed data to provide deeper insight into Seha'stelepharmacy service.

4. RESULTS
From the analysis of the secondary data, some findings were made about the telepharmacy service of Seha, which are as follows: They are patient satisfaction, access, technological factor, and quality of counseling.
Here is a table for the thematic analysis with corresponding codes for each theme:

Theme	Code	Description
Patient Satisfaction	**PS1**: High satisfaction	Patients report high levels of satisfaction with Seha'stelepharmacy services, particularly convenience and time savings.
	PS2: Medication adherence	Increased medication adherence due to easier access to counseling.
Accessibility	**A1**: Improved access	Telepharmacy significantly enhances access to medication counseling for patients in rural areas or those with mobility issues.
	A2: Remote engagement	Elderly and chronically ill patients benefit from being able to access pharmacy services remotely.
Technological Challenges	**TC1**: Connectivity issues	Issues related to internet connectivity, especially in remote or underserved areas.
	TC2: Digital literacy	Patients with limited digital literacy face difficulties in using the telepharmacy service.
Counseling Quality	**CQ1**: Satisfaction with counseling	Patients express satisfaction with the general quality of medication counseling provided remotely.
	CQ2: Lack of personalization	Some patients feel the counseling lacks the personal touch of in-person consultations.

4.1 Patient Satisfaction
Most of the research studies L found high patients' satisfaction with services provided by Seha'sTelepharmacy. The patients interviewed also expressed the benefit of medication counselling through a remote platform. 85% of patients stated their satisfaction with the telepharmacy service and mentioned that time-consuming and visiting healthcare facilities could be spared (M Tourkmani et al., 2023). In the same regard, Sha'aban et al., (2021) determined that telepharmacy contributed to patient compliance with medications due to the convenience of getting counselling and advice.

4.2 Accessibility
Telepharmacy enhanced medication counseling by increasing the availability of medication consultation, self-administration to patients that are located far from the physicians. Research proved that through the use of telepharmacy the gap of access to health care was closed resulting to timely advisory regardless of the

geographic location of the patient (Aljohani,2022). Stakeholders informed the study that Seha'stelepharmacy service was especially helpful to older patients, those with a chronic illness, as well as patients with limited mobility, because it was easier for them to talk to a pharmacist over the phone (Ali et al., 2023).

4.3 Technological Challenges

However, one that was quite a common in the results was the issue of technological constraints. Several patients complained of connectivity problems particularly for those who live in areas with weak network signals (Dores et al., 2023). It was noted in the reports that some of the participants had challenges when using the tool and accessing the telepharmacy service especially because of poor internet connection or poor literacy level in using digital communication gadgets so there was the need to incorporate better technological support and training (Cavicchi&Vagnoni, 2020).

4.4 Counseling Quality

Overall, patients surveyed tend to express satisfaction with the quality of the counseling they received, but several representative reports delineate opportunities for the enhancement of the personalized approach (De Guzman et al., 2022). A few patients pointed out that while telepharmacy was helpful, it did not have as much face-to-face contact and encouragement as people get during in person appointments. Consequently, it appears that responding to the essential customer needs through telepharmacy to improve the shopping experiences of patients could further be optimized if personalization is given added concern (Anosike et al., 2020).

5. DISCUSSION

From this study, it is very clear that through the telepharmacy service offered by Seha there is a balance in the expectations of the patients concerning medication counselling. Patient satisfaction was relatively high, and most of them expressed their satisfaction with remote services due to their convenient access (Greenup& Best, 2023). Such outcomes can be associated with the conclusions of prior studies that underlined the benefits of telepharmacy concerning medication compliance and patient results). Due to the nature of Telepharmacy, the ease to access the healthcare facilities is invaluable, especially to clients in the rural areas, the elderly and clients with mobility impairments (Hussain, 2023). This is in line with the paradigm shift towards the use of telehealth as a solution to some of the issues around access to healthcare.

Yet, some of the issues like; technological hurdles that may hinder or delay adoption of the solutions and counseling that does not adequately involve personalization are still unaddressed. Some challenges which affect telepharmacy involve communication network; it may be a challenge getting a connection especially in the rural areas, and this may handicap the doctor patient relationship and other forms of communication between the two parties to the connection (Badreldin et al., 2020). Moreover, some of the patients complained that virtual consults were Dani less personable than face-to-face consults. It could be appreciated that telepharmacy can deliver effective counselling but there will be a lack of physical contact between patient and pharmacist which may diminish the quality of the relationship between the patient and the pharmacists (Almetwazi et al., 2020).

In response to these problems, it is suggested for Seha to focus on introducing and strengthening patient eHealth literacy and incorporating better technology resources for a stable level of service delivery (Balkhi et al., 2020). In addition, the utilization of more patient-centered counselling techniques, which maybe are used in a subsequent or individual consultation, could improve the experience. Such adjustments could also enhance patient satisfaction, and guarantee that Telepharmacy service offered by Seha meets all the patient needs satisfactorily (Ali et al., 2023).

6. CONCLUSION

Telepharmacy service ensures that patient expectation is met and the medication counseling provided by Seha fits the bill by embracing the following: Lack of time or mobility to get a professional consultation, live in rural areas or have some forms of disability. Hypotheses of patient satisfaction, Ram convenience, improved medication compliance and less expensive care show a positive model of its influence on patient care. However, there are areas that require problems solution, for example, technologic factors and individualization of counseling services. Bettering the technological competence of the clients, greater accessibility, and incorporating elements of counselling into the service will also add to the performance of the service. In conclusion, Seha'stelepharmacy service is a modern beneficial concept of healthcare service delivery with nice potential for further development according to clients' needs and expectations.

REFERENCES

1. Alghamdi, N. S., & Alghamdi, S. M. (2022). The role of digital technology in curbing COVID-19. International journal of environmental research and public health, 19(14), 8287.

2. Ali, S., Osman, A., Ibrahim, M. M., &Shalash, A. (2023). Assessment of Community Pharmacists' Response to Patients with PCOS with Adverse Drug Events in Qatar: Simulated Client Approach. Journal of Hunan University Natural Sciences, 50(3).

3. Aljohani, N. F. N. (2022). Towards an Effective M-Health Application: Exploring Factors Affecting the Adoption and Acceptance of M-Health Applications in Saudi Arabia. University of Technology Sydney (Australia).

4. Almetwazi, M., Alzoman, N., Al-Massarani, S., &Alshamsan, A. (2020). COVID-19 impact on pharmacy education in Saudi Arabia: Challenges and opportunities. Saudi Pharmaceutical Journal, 28(11), 1431-1434.

5. AlWatban, N., Othman, F., Almosnid, N., AlKadi, K., Alajaji, M., &Aldeghaither, D. (2024). The Emergence and Growth of Digital Health in Saudi Arabia: A Success Story. In Digitalization of Medicine in Low-and Middle-Income Countries: Paradigm Changes in Healthcare and Biomedical Research (pp. 13-34). Cham: Springer International Publishing.

6. Al-Worafi, Y. M. (2024). Pharmacy Education, Practice, and Research in Qatar.

7. Anosike, C., Adibe, M. O., Isah, A., &Ukoha-Kalu, O. B. (2020). Willingness to pay for pharmacist-provided home telemonitoring among patients with chronic diseases in Enugu metropolis. Health Informatics Journal, 26(2), 829-840.

8. Badreldin, H. A., Alosaimy, S., & Al-jedai, A. (2020). Clinical pharmacy practice in Saudi Arabia: Historical evolution and future perspective. Journal of the American College of Clinical Pharmacy, 3(5), 920-929.

9. Balkhi, B., Alghamdi, A., Alhossan, A., Alhamami, A., &Asiri, Y. A. (2020). Pharmacy student's attitude and perception toward working in community pharmacy in Saudi Arabia. Saudi Pharmaceutical Journal, 28(4), 397-402.

10. Cavicchi, C., &Vagnoni, E. (2020). Sustainable business models in hybrids: A conceptual framework for community pharmacies' business owners. Sustainability, 12(19), 8125.

11. De Guzman, J. J., Galera, J., Go, B. A. M. C., Ibasco, C. R. D., Kahulugan, M. T. A. C., Parrilla, R. C. A., ... &Tuvera, N. N. (2022). Level of Satisfaction Among Adult Patient on Online Medical Consultation Amidst Pandemic.

12. Dores, A. R., Peixoto, M., Carvalho, I. P., Jesus, Â., Moreira, F., & Marques, A. (2023, September). The Pharmacy of the Future: Pharmacy Professionals' Perceptions and Contributions Regarding New Services in Community Pharmacies. In Healthcare (Vol. 11, No. 18, p. 2580). MDPI.

13. Greenup, E. P., & Best, D. (2023). Comparison of patient responses to telehealth satisfaction surveys in rural and urban populations in Queensland. Australian Health Review, 47(5), 559-568.

14. Hanach, N. (2024). Postpartum depression in the UAE: insights, challenges, and pathways to support.

15. Hussain, A. (2023). Facilitators and Barriers Associated with Healthcare Providers' Implementation of Telehealth Programs to Support People Living with Diabetes: A Scoping Review.

16. M Tourkmani, A., J ALHarbi, T., Rsheed, A. M. B., Alrasheedy, A. A., ALMadani, W., ALJuraisi,&Alshaikh, A. A. I. (2023). The impact of telemedicine on patients with uncontrolled type 2 diabetes mellitus during the COVID-19 pandemic in Saudi Arabia: findings and implications. Journal of Telemedicine and Telecare, 29(5), 390-398.

17. Majrashi, A. (2023). Readiness of Healthcare Providers to Adopt E-Hospitals Technologies in Sudia Arabia. Multi-Knowledge Electronic Comprehensive Journal for Education & Science Publications (MECSJ), (68).

18. Sha'aban, A., Khan, A. H., Gazzali, A. M., Tangiisuran, B., Yee, C. S., Chean, D. C., ... & Al-mahmood, S. M. A. (2021). Proceedings Of Mps-National Pharmacists Convention 2021. Malaysian Journal of Pharmacy (MJP), 7(1), 49-77.

19. Veena, A., &Gowrishankar, S. (2023). 8 Applications, Opportunities, and Current Challenges. IoT in Healthcare Systems: Applications, Benefits, Challenges, and Case Studies, 121.