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# [AP2-E2-2-04] A Survey of Patient Opinion on the Role of Telehealth in Sri Lanka

\*Gumindu G.A.K Kulatunga<sup>1</sup>, Roshan H. Hewapathirana<sup>2</sup>, Rohana Basil Marasingha<sup>3</sup>, Vajira H.W. Dissanayake<sup>2</sup> (1. Postgraduate Institute of Medicine, University of Colombo, Sri Lanka, 2. Faculty of Medicine, University of Colombo, Sri Lanka, 3. Faculty of Medical Science, University of Sri Jayewardenepura, Sri Lanka) Keywords: Consumer Informatics, Health Informatics, Healthcare Services, Sri Lanka, Telehealth

Telehealth is one of the world' s fastest-growing healthcare sectors. Its growth has been accelerated by the COVID-19 pandemic. Ageing populations with chronic diseases are highly susceptible to COVID19 and were encouraged to receive remote healthcare. For a telehealth programme to sustain, it should be designed and implemented to cater to the community telehealth requirements in any situation. The main objective of this study was to assess the attitudes of Sri-Lankan telehealth consumers/patients. Characteristics of consumers registered with telehealth service providers were studied using a web-based trilingual voluntary selfadministrated questionnaire. Results from 235 respondents were analysed. Average age of the consumer was 35.4 years (SD+/-10.6). Only 5 % were above 60 years. Average consumer age was similar to other countries. Majority were males (77%) compared to high female predominance in other countries. Only 79% had previous personal user experience in telehealth. 71% of them were residing near the capital. Overall consumer satisfaction was 61% with a score of 3.88 which were comparably low. Majority 71% agreed it helped to save travel time and waiting time. 71% agreed that the ability to get an internet-based prescription is very important and 46% used the service to obtain medication for chronic diseases similar to the global trends. Only 56% claimed that they were able to reduce health expenditure by using the service. However, about 69% of those who had used the service were willing to reuse it. Telehealth is not popular amoung the elderly and the females. Overall telehealth client benefits were average compared to the needs. The elderly population and rural community who are unable to travel and need long term treatment must be empowered to use telehealth. More are likely to embrace telehealth once particular features are provided.

# A Survey of Patient Opinion on the Role of Telehealth in Sri Lanka

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#### Abstract

Telehealth is one of the world's fastest-growing healthcare sectors. Its growth has been accelerated by the COVID-19 pandemic. Ageing populations with chronic diseases are highly susceptible to COVID-19 and were encouraged to receive remote healthcare. For a telehealth programme to sustain, it should be designed and implemented to cater to the community telehealth requirements in any situation. The main objective of this study was to assess the attitudes of Sri-Lankan telehealth consumers/patients. Characteristics of consumers registered with telehealth service providers were studied using a web-based trilingual voluntary self-administrated questionnaire. Results from 235 respondents were analysed. Average age of the consumer was 35.4 years (SD+/-10.6). Only 5 % were above 60 years. Average consumer age was similar to other countries. Majority were males (77%) compared to high female predominance in other countries. Only 79% had previous personal user experience in telehealth. 71% of them were residing near the capital. Overall consumer satisfaction was 61% with a score of 3.88 which were comparably low. Majority 71% agreed it helped to save travel time and waiting time. 71% agreed that the ability to get an internet-based prescription is very important and 46% used the service to obtain medication for chronic diseases similar to the global trends. Only 56% claimed that they were able to reduce health expenditure by using the service. However, about 69% of those who had used the service were willing to reuse it. Telehealth is not popular amoung the elderly and the females. Overall telehealth client benefits were average compared to the needs. The elderly population and rural community who are unable to travel and need long term treatment must be empowered to use telehealth. More are likely to embrace telehealth once particular features are provided.

#### Keywords:

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#### Introduction

'Social distancing' is the main message heard globally in the COVID-19 pandemic, with undetected cases accelerating transmission. Majority of health care consumers drastically changed their patterns of traditional health care service usage and embraced online health services [1]. Even in a non a pandemic situation, telehealth is known to improve healthcare and make a positive impact on the well-being of the elderly with

chronic diseases [2]. The digital health reforms in healthcare delivery originated not only due to a matter of advancement in technology, but also due to changes in user needs and attitudes. Therefore, the foremost essential is to understand the characteristics of telehealth patients or rather consumer needs in planning telehealth services.

The main objective of this study was to assess the attitudes of Sri-Lankan telehealth consumers towards telehealth services.

#### Methods

To assess the characteristics of telehealth consumers in Sri Lanka, a web-based anonymous voluntary self-administered questionnaire, prepared in Sinhala, Tamil and English languages, pretested and validated, was emailed to telehealth consumers through the telehealth institutes following their agreement, during November-December 2018. The questionnaire was made using open-source LimeSurvey<sup>TM</sup> software.

#### Results

Only 235 out of 411 consumers who opened the email-link had completed the questionnaire fully with a completion rate of 57%. The average consumer age was 35.4 years with SD+/-10.6. The majority (72 %) of the sample was between 24- 41 years of age. However, only 5% were above the age of 60 years. Only individuals above 18 years were able to register as consumers for the services.

The majority were males (77%). Only 79% (n=185) of the registered had previous personal user experience and selected for further analysis. Most of them (71%) were residing near the capital in Western province.

More than half (56%) of consumers claimed to be overall benefited by telehealth services obtained and it had helped to reduce expenditure. The overall satisfaction agreement level for telehealth consultations was 61% and the mean satisfaction score value was 3.88 (out of a 1-5 satisfaction agreement Likert scale). However, a high percentage (71%) agreed that telehealth helped to save travel time and waiting time when accessing health care services and 69% were hoping to use telehealth services again in the future.

Further, 71% agreed to the statement of 'ability to get an internet-based prescription is very important in a teleconsultation'. Types of online prescriptions that consumers thought it is important were; prescriptions for the continuation of currently taken medication (64%), prescriptions for antibiotics (56%), prescriptions for a chronic disease such as asthma, hypertension, diabetes (47%) and prescriptions for suitable contraception (35%). Telehealth service provision in the English language alone or combination with other languages was preferred by 114 (62%). However, Sinhala language alone is favored by 60 (32%) and Tamil language alone by 11 (6%).

### Discussion

Telehealth usage showed some difference in demographic and user experience pattern compared to the rest of the world.

Most of the telehealth consumers in Sri Lanka were males (77%) similar to previous studies in the country [3]. However, research from other countries demonstrates a female predominance with 65% in United Kingdom [4], 59% in USA [5] and 74% in Sweden [6]. Telehealth consumer mean age of 35.4 years in Sri Lanka was similar to values of 38-39 years in Europe [4], [6].

Internet-based prescription is given high importance in USA similar to Sri Lanka. One research showed that 70% of consumers prefer online teleconsultation to obtain a prescription [7]. Another showed that 69% of teleconsultations ended up with an internet-based prescription [5]. However, in Europe, only 37% use telehealth [8] to receive prescriptions. United Kingdom showed a lower internet prescription issue rate of 7% [4].

Both in USA and Sri Lanka, internet-based prescriptions are used commonly for the continuation of currently taken medication with consequent percentages of 60% and 64% [7]. Other online prescription medications that US consumers need were; contraception (42%), antibiotics (42%), drugs for chronic conditions such as asthma and hypertension (30%).

In Sri Lanka, around 56% claimed that they were overall benefited by telehealth services obtained and it leads to reduction of healthcare expenditure. However, in USA, a higher percentage of 88% agreed that telehealth helped to improve their health status, and 79% agreed that telehealth helped to reduce healthcare expenditure [9]. A systematic review [10] records an overall customer satisfaction rate of 92% (n=38 research papers) in teleconsultations and it is also much higher than Sri Lanka.

Sri Lankan mean satisfaction score of 3.88 was lower than 4.4 for USA [11]. However, Sri Lankan consumer preference to reuse telehealth services was 69% and similar to contemporary study value of 75% from USA [12].

## Conclusion

Telehealth is not popular amoung the elderly, the females as well as the rural community. Overall satisfaction and benefits claimed by the Sri Lankan consumers were less compared to the West. Telehealth providers should identify telehealth demand and plan future services. The elderly population and rural community who are unable to travel and need long term management, must be empowered to use telehealth. Also, telehealth needs to be popularized more amoung females in Sri Lanka who commonly take care of health matters of the family. Services must be planned to reduce consumer healthcare expenditure. More patients are likely to embrace the telehealth once particular features are provided.

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Ethical approval for this research was obtained from the Ethical Review Committee Postgraduate Institute of Medicine, University of Colombo Sri Lanka.

The authors declare no potential conflicts of interest concerning the research.

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