Level Of Satisfaction Among Adult Patients on Online Medical Consultation Amidst Pandemic

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Abstract: As a consequence of the COVID-19 pandemic, the healthcare system was greatly affected. Online Medical Consultation (OMC) was introduced as an alternative to traditional face-to-face healthcare services to reduce viral exposure for both patients and healthcare practitioners. However, in the Philippines, telemedicine services such as OMC are still a young modality. Thus, determining patient satisfaction is critical for the enhancement of OMC to be a viable mode of service delivery. This study aimed to determine the level of satisfaction with online medical consultations of adult patients during the COVID-19 pandemic. A descriptive non-probability convenience sampling was employed in this study. On a 4-point Likert scale, respondents were asked to rate their degree of satisfaction based on formulated statements about communication quality, system design, convenience, and perceived effectiveness. A statistical tool Pearson's Chi square test, patient satisfaction on OMC was observed to be associated with the level of educational attainment. Those who have completed their tertiary education are said to be significantly associated ($p = 0.003$) with OMC patient satisfaction. This shows that people with higher education have a significant causal effect on their health, particularly in terms of their understanding of the doctor's language, and technology literacy, and are more welcoming to the idea of OMC.

Key Words: —*COVID-19, Pandemic, Patient Satisfaction, Online Medical Consultation, Telemedicine.*

I. INTRODUCTION

The COVID-19 pandemic caused a detrimental impact on the healthcare sector. Thus, quarantines were implemented to reduce the transmission of the virus; however, it also made face-to-face consultation difficult, increasing the demand for healthcare services. Telemedicine services have been emphasized to aid the provision of medical care. A service belonging to telemedicine called Online Medical Consultation (OMC) is defined as the real-time audio-visual engagement between the physician and the patient. In the Philippine setting, the Department of Health (DOH) issued a joint memorandum circular no. 2020-0001, or the "Guidelines for the Use of Telemedicine in Response to COVID-19", to set guidelines on the practice of telemedicine.

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Specifically, OMC provides quality healthcare service while reducing infection risks. Improving this modality requires the consideration of patient satisfaction through their feedback and recommendations, in which this study designed a paradigm that will determine the patient satisfaction with OMC.

II. METHODOLOGY

2.1 Study Design

A descriptive correlational research design is used to determine the relationship between the socio-demographics of the patient and their level of satisfaction with OMC.

2.1.1. Survey Instrument

The modified study questionnaire is based on Telemedicine Satisfaction And Usefulness Questionnaire (TSUQ) (Bakken.et.al) and Telehealth Usability Questionnaire (TUQ) (Parmanto.et.al).

2.1.2. *Respondents of the Study*

The target respondents are adult Filipino patients (18+

years). The calculated minimum sample size is 267 respondents, based on Cochran's formula with a 6% margin of error.

2.1.3. Sampling Technique

Non-probability convenience was used since OMC practice is not yet widespread in the country and there is no definite population.

2.1.4. Collection of data

Survey questionnaire was distributed via Google Forms. Data is then automatically aggregated by google spreadsheet for structurization of the respondents' responses.

2.1.5 Statistical Treatment

The raw data were processed and analyzed using percentages, weighted mean, and Chi-square test.

2.1.6. Ethical Approval

The study protocol gained approval on March 21, 2022, from CEU – REO Institutional Ethics Review Board to conduct this study.

III. Results and Discussion

3.1 Socio-demographic Variable

Results showed that 88.97% of our respondents are young adults, 83.82% were female, 60.3% lived in urban places, 64.34% achieved tertiary education, and 23.9% have an average monthly income of 22,000 to 44,000 pesos. The younger generation and in urban areas are predominant as they have more time and access online. Moreover, women are more likely to engage in a web-based online survey (Becker et.al.2019), High level of education has a significant impact on personal health. ***See table 1***

3.2 Patient Engagement on OMC

A high percentage (44.12%) have experienced OMC only once. The top reason for conducting OMC during pandemic is COVID-19- related cases (26.68%). Cellphones, smartphones, and laptops are the prevalent virtual care devices for conducting OMC due to their convenience (Neves et al. 2021). ***See table 2***

Table.1. Socio-demographic Variable of respondents

SDV		
Age	*f*	%
Young Adults	242	88.97
Middle Age adults	24	8.82
Geriatric	6	2.21
Gender		
Male	37	13.6
Female	228	83.82
Others	7	2.57
Place		
Rural	108	39.7
Urban	164	60.3
Educational Attainment		
Primary	5	1.84
Secondary	92	33.82
tertiary	175	64.34
Average Household Income in PHP		
below 11,000	39	14.34
11,000 - 22,000	51	18.75
22,000 - 44,000	65	23.9
44,000 - 77,000	50	18.38
77,000 - 132,000	39	14.34
132,000 - 220,000	17	6.25
above 220,000	11	4.04

3.3 Four components of OMC

Quality of communication ($\bar{x}$=3.37) strongly satisfied the respondents with the therapeutic relationship over OMC. System design ($\dot{X}$=3.32) showed a strong satisfaction result for its user-friendliness (Almathami HKY et.al. 2020). Convenience ($\bar{x}$=3.31), interpreted as strongly satisfied with the how they could save time by using video visits in OMC. Perceived effectiveness ($\bar{x}$=3.31) showed strong satisfaction

on health service even without physical contact (Atanasova 2018). ***See table 3***

Table.2. Patient's Engagement in OMC

	f	%
Number of Times Respondents Experienced OMC		
Once	120	44.12
Twice	65	23.9
Several	87	31.99
Top Five Reasons of Online Medical Consultation		
COVID-19	78	28.68
Skin	73	26.84
Follow up consultation	63	23.16
Eyes, Ears, Nose, Throat Disorder	61	22.43
Psychological Disorder	31	11.4
Device Used to Communicate with Healthcare Provider		
Cellphone	131	48.16
Smartphone	126	46.32
Landline	16	5.88
Tablet	22	8.09
Desktop	18	6.62
Laptop	100	36.76
Response Rate on How Patients knew about Online Medical Consultation		
Recommendation from Family and Friends	91	33.46
From social media	82	30.15
Recommendation by my doctor	81	29.73
From an Advertisement	8	2.94

3.4 The association of sociodemographic variables and level of patient satisfaction with OMC

Percentages show "highest educational attainment" a significant association with the respondent's level of satisfaction (p=0.003) comparable to the findings of Adams' (2021) on patient satisfaction and acceptability with telemedicine. Higher levels of education are more likely to use OMC and is shown to have a substantial causal effect on their health, affecting the quality of communication in terms of their understanding of the doctor's language and their technological literacy. ***See table 4.***

Table.3. Level of patient satisfaction based on the Online Medical Consultation component

Components	**Weighted Mean**	**Verbal Interpretation**
Quality of communication	3.37	Strongly satisfied
System Design	3.32	Strongly satisfied
Convenience	3.31	Strongly Satisfied
Perceived Effectiveness	3.31	Strongly Satisfied

Table.4. Association of the respondent's socio-demographic and the level of patient satisfaction with the online medical consultation component.

Sociodemographic Variable	**Level of Satisfaction on OMC**		Verbal Interpretation
	(x2)	**p-value**	

Age	3.379	0.497	No Significant Association
Gender	2.113	0.715	No Significant Association
Place of Residence	1.717	0.424	No Significant Association
Highest Educational Attainment	**16.024**	**0.003**	**Significant Association**
Average Monthly Income	6.305	0.9	No Significant Association

IV. Conclusion

The following conclusions are presented based on the results:

- Respondents expressed strong satisfaction with the four components of OMC.
- A significant association is found between the level of educational attainment and the four components of OMC

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