Consumer's Response To Telemedicine As A Healthcare Delivery Model In UAE

Sravan Kumar¹, Dr. Kavita Bhalekar², Dr. Pretty Bhalla³

 ¹Research Scholar, Lovely Professional University (LPU), Punjab, India Deputy Director Quality, Zulekha Healthcare Group, Sharjah and Dubai, UAE
²Director of Nursing, NMC Hospital, Abu Dhabi, UAE
³Associate Professor, Lovely Professional University (LPU), Punjab, India

> Received Date: 07 October 2020 Revised Date: 30 October 2020 Accepted Date: 03 November 2020

Abstract – Telemedicine has been widely used as a mechanism for making healthcare accessible to people in places where they don't have access to healthcare services or specialist doctors, medical technology, etc. The purpose of this study is to see how buyers see the incentive of Telemedicine as a social insurance conveyance model in the segment of comfort, ability to utilize, improved conveyance of medicinal services, comprehend the nature of virtual vital consideration, and presumably advocate the utilization of Telehealth as a favored strategy for looking for therapeutic consideration in UAE. A cross-sectional survey was being done. Data was collected using a questionnaire developed through google forms and sent out to respondents through Email and WhatsApp. There were no specific exclusion criteria, and inclusion criteria included all UAE residents above 18 years of age. The total responses collected were 214. The majority of the respondents are willing to use telehealth services for mainly routine care. The respondents agree that Telemedicine will save time and travel, money and improve access to healthcare. The respondents also want the telehealth services to be covered by Insurance for better usability and acceptance of telehealth services in the future.

Keywords: Consumer Perceptions Tele-consultation, Telemedicine, Telehealth, Video consultation

I. INTRODUCTION

Access, equity, quality, and cost-effectiveness are key problems facing health care in each developed and fewer economically developed country. Information and communication technologies (ICTs), like computers, the Web, and cell phones, are revolutionizing; however, people communicate, look for, and exchange data, enriching their lives. Telemedicine uses ICTs to overcome geographical barriers and increase access to health care services. World Health Organization (2009) distinguishes Telemedicine from Telehealth, with the former restricted to service delivery by physicians only. The latter signifies services provided by health professionals in general, including nurses, pharmacists, and others. However, for this study, Telemedicine and Telehealth are synonymous and used interchangeably.

WHO (2009) defined Telemedicine as "the delivery of healthcare services, where distance is a critical factor, by all healthcare professionals using information and communication technologies for the exchange of valid information for the diagnosis, treatment, and prevention of disease and injuries, research and evaluation, and for the continuing education of healthcare providers, all in the interests of advancing the health of individuals and their communities."

The prefix "tele" derives its meaning from the Greek word "Telos," which means "at a distance"; hence Telemedicine is "medicine at a distance" (Craig & Patterson, 2005). In this paper, Telemedicine and Telehealth, although different from each other, are used synonymously as it is easy for healthcare consumers to understand.

A. Purpose of the study: This study aims to understand how consumers view the value proposition of Telemedicine as a healthcare delivery model in the United Arab Emirates. It will explore the component of convenience, willingness, improved delivery of healthcare, understand the quality of virtual medical care, and probably advocate Telehealth's use as a preferred method of seeking medical attention. The study may also provide the physicians/healthcare executives with factual data required to adopt and promote the telehealth system. Strategies to identify cost-effectiveness and efficiency when utilizing these technologies will demonstrate how providers and healthcare facilities benefit from its implementation. Virtual video visits are the recent trend that the global market is moving towards. The integration of communication devices and technologies will increase the opportunities to penetrate further in the market.

As accessing healthcare services by visiting hospitals and healthcare providers is becoming increasingly taxing and time-consuming on the patients, and, mobile devices and the internet currently became an integral part of our lives, it is natural that customers need to leverage telehealth/telemedicine services to boost care, provide convenience, promote access and support the property. Telehealth services vary from consultation and video conference sessions to text electronic communication and ondemand supplier education. The worldwide sector, referred to as Telemedicine or Telehealth, was priced at \$23bn in 2015 and is anticipated to grow to \$66bn by 2021, consistent with a recent report by leading research practice Mordor Intelligence. One of the biggest telehealth suppliers within the USA, Doctor on Demand, celebrated usurping its fourhundredth employer- client in January of this year - transfer the quantity of staff lined by the service to Associate in Nursing calculable forty-five million. Businesses, each big and small throughout the United States of America - together with American Airlines, Delta, and General electrical square measure taking advantage of virtual doctors to boost worker care and build substantial health care price savings (MacLaren, 2017).

One of the foremost notable reports on Telemedicine's costeffectiveness, the Geisinger Health telemonitoring program in 2014, has significantly reduced hospital readmissions and cost of care to its members diagnosed with a heart failure condition. This program implemented a blue tooth and an interactive voice response solution that has improved healthcare providers' efficiency delivering a return of 3.3 on investments, i.e., return on investment of around \$3.3 in price savings for each \$1 spent (MacLaren, 2017). The UAE government is awake to the potential Telemedicine needs to save each life and cash within the country, as proven by their sturdy and public backing for virtual doctor initiatives. For instance, the govt is about rolling out all-out health information and self-care recommendation services, like Scotland's NHS twenty-four - which can provide smartphone health observance and phone medical recommendation. And it appears that each patient and businesses alike square measure taking to the new services - inside some months, 200,000 individuals had signed up for the governmentbacked health program launched in 2014. Therefore, the UAE leads the means in telemedicine adoption within the Middle east. The quality of video and voice health services is considerably higher - around 30per cent - than the worldwide average (MacLaren, 2017).

II. METHODS

A. Methodology: This study was designed as a crosssectional survey using a self-administered questionnaire, conducted between June and August 2019, to gather healthcare consumers' perceptions of telemedicine/telehealth. Research Instrument: A structured, self-administered survey questionnaire was developed, referencing the Telehealth Usability Questionnaire (TUQ) developed by Parmanto (2016). The questionnaire had in total of 14 questions. It was divided into 2 sections; section 1 - demographic details and section 2 - questions related to telehealth services' usability. All questions were close-ended with a Likert scale used to grade the responses on a 5-point scale of agreement, from strongly disagree to agree strongly. The questions were designed with short statements and simple words using Google Forms software to minimize misunderstanding and increase responses. The questionnaire was evaluated and reviewed for the first 20 respondents to validate and evaluate questions and structure's appropriateness accordingly. A few minor changes were made to the questionnaire.

B. Sampling: In the present study, non-probability convenience sampling was used. This survey was targeted to assess the consumer's response to the utilization of telehealth services. The eligibility criterion for the participant was adult consumers residing in the United Arab Emirates. There were no specific exclusion criteria for this study. The electronically generated survey form was then further distributed through Email and social media channel - WhatsApp for ease in gathering many responses. Upon receiving the survey link through social media, the respondents were provided with information regarding the survey. The right to close the survey was un-responded, and the data did not collect any personal information to reveal identity. On submission, "response has been successfully recorded" was displayed.

C. Data Analysis: Descriptive statistics were conducted to analyze the data. The Google forms software used helped categorize the collected data and presented the same in graphs for easy analysis and interpretation.

III. RESULTS

A. Respondent characteristics: About 51.4per cent (110) respondents were between the age group of 25-34 years, 38.7per cent (83) were in the age group of 35-44 years, 8.8per cent (19) were in the age group of above 45years while only 0.9per cent (2) were in the age group of 18-24 years. Of these, 66.8per cent (143) respondents were females, and 33.2per cent (71) was males. The majority of the respondents were Indians with 59.3per cent (127), Filipino respondents were 28.9per cent (62), Egyptians were 2.3per cent (5), British, Jordanian, Palestine was 0.9per cent (2) each, and the remaining nationalities had a single representation. 91.5per cent (196) respondents had more than 5 years of experience in using the internet, whereas 7per cent (15) and 1.4per cent (3) had 3-5 years and 1-2 years, respectively, in the usage of the internet.

About 54.2per cent (116) respondents have never used telehealth services earlier, whereas 40.2per cent (86) have reported having used telehealth services sometimes, and 5.6per cent (12) respondents use telehealth services always.

Willingness to use - 44.3per cent (95) respondents were

willing, 37.3per cent (80) were somewhat willing, 7.9per cent (17) were completely willing whereas, only 10.2per cent (22) were unwilling to use telehealth services for routine care. Cumulatively 89.7per cent (192) was willing to use telehealth services for routine care. In the case of emergency care, 6.5per cent (14) respondents were completely willing, 41.1per cent (88) were willing and 28.5per cent (61) were somewhat willing to use telehealth services, whereas 23.8per cent (51) were unwilling to use telehealth services for emergency services. Cumulatively 76.1per cent (163) was willing to use telehealth services for emergency care.

Use of telehealth services for specialists care - the respondents cumulatively, 77.5per cent (166) agree to use telehealth services for specialist care. In contrast, only 22.4per cent (48) were unwilling to use telehealthcare services for specialist care. 65.8per cent (141) of the respondents cumulatively agree and strongly agree that telehealth services will save time and travel, whereas 5.1per cent (11) cumulatively disagree and strongly disagree that telehealth services will save time and travel, and 28.9per cent (62) were neutral in their response.

Regarding improved access to healthcare, about 8.4per cent (18) & 52.8per cent (113) of respondents strongly agree and agree, respectively, that Telemedicine will improve access to healthcare, 29.4per cent (63) were neutral. In contrast, only 7per cent (15) & 2.3per cent (5) respondents disagree and strongly disagree, respectively. *Telemedicine/telehealth helps in saving money*. About 54.2per cent (116) cumulatively agree that telehealth services will save money, whereas 12per cents (26) cumulatively disagree, and 33.6per cent (72) were neutral in their response regarding the cost-saving aspect of telehealth services.

Quality of consultation in Telemedicine vs. in-person hospital consultation - 30.8per cent (66) respondents agree, 4.2per cent (9) respondents strongly agree that the quality of telehealth consultation is the same as in-person hospital consultation, 30.8per cent (66) gave a neutral response, whereas 7per cent(15) strongly disagreed and 27.1per cent (58) disagree that telehealth consultation is same as in-person hospital visits. *Ease of use* - 48.1per cent (103) cumulatively agree and strongly agree that telehealth services are easy to use and can easily communicate with the doctor. 30.8per cent (66) are unsure about the ease to use of telehealth services whereas, 21per cent (45) cumulatively disagree that telehealth services are easy to use and cannot easily communicate with the doctor.

Coverage by Insurance - 57per cent (122) respondents agree to use telehealth services only if it is covered by Insurance, whereas, only 14.9per cent (32) respondents disagree that they will use telehealth services only if it is covered by Insurance and 28per cent (60) were neutral in their response. *Acceptance of telemedicine/telehealth as a healthcare* *delivery model* - 59.8per cent (128) respondents consider that future healthcare delivery models will be telehealth services instead of only 9.3per cent (20) respondents disagree that telehealth services can be used to deliver healthcare. 30.8per cent (66) was neutral. Regarding meeting all healthcare needs, 26.1per cent (56) agree, 5.1per cent (11) strongly agree that Telehealth can provide for all healthcare needs, 29.9per cent (64) disagree, 7per cent (15) strongly disagree that Telehealth can provide for all healthcare need, whereas 31.7per cent (68) were neutral in their responses.

B. Testing of Hypothesis:

H1 - *There is a high level of agreement in the willingness to use Telemedicine among consumers.*

As mentioned above, 89.7per cent (192) of the respondents cumulatively were willing to use telehealth services for routine care, 76.1per cent (163) were willing to use telehealth services for emergency care, and 77.5per cent (166) agree to use telehealth services for specialist care, indicating a strong willingness to use telemedicine services. The result is in line with the study of Turner, Thomas & Galliun (2001), where most consumers exhibited a willingness to use Telemedicine majorly for emergencies. With this, the hypothesis related to consumers' agreement in the willingness to use Telemedicine is accepted.

H2 - There is a high level of agreement related to access, quality, and cost related to Telemedicine among the consumers.

As indicated above, 65.8per cent (141) of the respondents cumulatively agree that telehealth services will save time and travel, 61.2per cent (131) agree that Telemedicine will improve access to healthcare, 54.2per cent (116) agree that telehealth services will save money and 35per cent (75) agree that quality of telehealth consultation is same as in-person hospital visits, as this is supported by a study conducted by Joseph (2015) where he demonstrated that Telehealth saves money and improves patient outcomes. Thus, suggesting that hypothesis related to a high level of agreement related to access, quality, and cost related to Telemedicine among the consumers can be accepted.

IV. DISCUSSION

A. Implementation and effectiveness of Telemedicine: Jaglal, Haroun, Salbach et al. (2013) focused on whether a telehealth chronic disease self-management program (CDSMP) improved the overall health of customers with long term and diseases which are chronic and also their selfefficiency and healthy behaviors in Northern Ontario, Canada. The comparative statistical data showed significant improvement in self-efficiency, cognitive symptom management, communication with physicians, role function, psychological well-being, energy, and self-rated health. Girard (2007), according to that the Department of Defence (DOD) and also the department of Veterans Affairs (VA) use telemedicine technologies to permit physicians and medical

suppliers to supply medical aid, support, and education to traumatic brain injury (TBI) patients each on the field of honor and domestically. This telehealth program has reduced the patient's ER visits, hospitalizations, and the length of hospital stays while improving veterans' quality of life. Hilty, Ferrer, Parish, et al. (2013) conducted a review on the effectiveness of tele-mental health care programs that show tele-mental health to be effective for diagnosing and assessing mental illnesses, similar to the findings of the current study. Bresnick (2014) reported that the telemedicine center commissioned by Sisters of Mercy Health System, based in Missouri, allows physicians and nurses to monitor patients around the clock and check in with patients who may not reach major care centers with ease. 90per cent of Mercy care connects patients to avoid ER visits and hospital stays while on the program. Wingfield, Thomas, and Ableson (2018) rumored within the big apple times that Amazon's Jeff Bezos, county Hathaway's Warren Buffet, and J. P. Morgan chase's Jaime Dimon have teamed up to disrupt health care.

American Well's new consumer Telehealth Index survey (2017) portrayed that 67per cent of consumers delayed seeking care for a health problem due to the following reasons:

- It costs too much (23per cent)
- It takes too long to get in to see a doctor or nurse (23per cent)
- They thought that the problem would go away on its own (36per cent)
- They are too busy (13per cent)

Delaying care for medical health concerns can have costly ramifications for the patient and the healthcare provider with fewer, often far more expensive treatment choices when the diagnosis is delayed. Moreover, by delaying routine care, many consumers miss reminders and doctor's instructions to get preventive exams, vaccinations, or flu shots when they are due. Avoiding routine care for less serious concerns can lead to a patient having more serious issues in the future. And when a consumer doesn't get advice or treatment for a health concern, there can be a significant negative impact on that person's physical and mental health. The survey implies a growing vanguard of consumers willing to switch doctors to get video visits as part of their care. The majority of consumers are increasingly open to video visits. With Telehealth's market value expected to hit \$ 36.2 billion by 2020, the survey highlights consumers' desire to use video visits across various medical needs. Consumers believe that Telehealth is effective for managing minor healthcare concerns like Refilling prescriptions (78per cent), Birth Control (50per cent), Chronic care conditions (60per cent), and Hospital follow-up care (52per cent). 20per cent of consumers would also prefer to have an immediate live video visit with a doctor for the middle of the night care.

B. Telemedicine Approaches in the Middle East:

Egypt – Dahroug, H.S. (2017) describes that while there have been many advances in the Egyptian health ecosystem over the past three decades, many challenges remain unresolved. Child mortality and maternal mortality rates have dropped significantly, and the average life expectancy reached 71 years in 2014. Several noteworthy initiatives by the government have successfully tackled some of the country's major health concerns, such as mandatory immunization, which has eradicated Poliomyelitis in Egypt, established an Egyptian national program to combat tuberculosis, and the near eradication of Bilharziasis. At the Siwa node, a pilot model of the Telemedicine Project, "Tele- Consultation on Child Health," was implemented in the region in 2009 -2012. This was established to assist in the reduction of child morbidity and mortality in the district. Through a public, private partnership, the Siwa main hospital was connected to the Paediatric Department of El Shatby Hospital in Alexandria. The program had shown that the teleconsultation approach could effectively improve the performance of healthcare providers in Siwa. Regular communication conferences were held, where physicians in Siwa prepared cases requiring consultation from the pediatric department specialists and El Shatby Hospital professors.

Moreover, teaching staff might decide to hold a distancelearning videoconference with their counterparts in Siwa during the regular teleconsultation. Healthcare personnel from Siwa Hospital also participated by videoconference on a biweekly basis in the scientific meetings held in the pediatric department in Alexandria. Another Telemedicine project, the ICT-Trust Fund (TF), was successfully developed and handed over four IT solutions and teleconsultation tools to the Siwa Central Hospital and Al Shatby Hospital, consisting of two telemedicine kits in each governorate and two conference centers in each Hospital. A Centre of Excellence for Remote Consultation at Al-Shatby Hospital in Alexandria governorates was constructed using Internet infrastructure and videoconference facilities. This enabled the live broadcast of regular lectures taking place in Alexandria to their Siwan counterparts. The ICT-TF provides sponsorship with an Internet Service Provider (ISP) to sustain the workable medical development model in Siwa Oasis. More than 50 children have benefited from teleconsultation services. Simultaneously, seven doctors from Siwa Central hospital were trained on Remote-Diagnosis-procedures, in addition to medical eLearning, and using the software for diagnosis. In contrast, three medical staff were trained on how to operate the teleconsultation system.

United Arab Emirates – In the report "Telemedicine on the Rise in the UAE" by global health care insights (2017) in their international short pronounced that using Telemedicine within the UAE is enormously promising however is developing greater slowly than expected. Two of the startups, fitness at hand and smart SEHA, provide patients with video

consultations with physicians. At the same time, the other known as Heydoc! has created casual telemedicine channels to capitalize on doctors' pre-current willingness to talk with patients through WhatsApp and phone calls. Further to virtual consultation platforms, other new healthcare technologies inside the UAE consist of "consult stations" inclusive of those recently unveiled by the Dubai Health Authority (DHA). In a few malls and DHA headquarters, these stations enable patients to conduct their checkups and 18 different tests, together with tests for blood pressure, blood glucose, listening to, and imaginative and prescient. The kiosks will be linked to medical doctors through a computer and print out medical reports and referral sheets for every patient at the end of the consultation session.

Knight, L. (2017), in her article 'Telemedicine, coming together for the UAE?' stated that Telemedicine had been tried and examined for some years inside the UAE. Nothing appears to have set the sector on the fireplace, but within 8 months, 3 new startups have released patient-doctor consultation offerings, believing that now Emirates is probably prepared for it. She also quoted Stephen MacLaren of insurers Al Futtaim Wills, who said that one of the excessively priced regions uses needless trips to health facility emergency rooms. Facts offered to indicate that Emirati residents utilize emergency room services around 12 instances a year, which may be very high, putting a strain on coverage businesses where medical health insurance is mandatory. Still, there's no value to the hospitals spending time on non-pressing instances, to employers who're dropping a group of workers to physician visits, and to humans spending time and money to go to the doctor. MacLaren expected that the average price of these ER visits could add up to, become \$1200. They are taking a conservative approach of 10 visits per year accounts for a needless spend of \$120 per resident per visit. The UAE markets' main carriers are Abu Dhabi Telemedicine center. Fitness to Hand, Trudoc, HeyDoc!, and Altibbi.

In 2014, the Abu Dhabi Telemedicine Centre released the clock telephone provider service that connects patients to nurses and doctors for the duration area; it's a joint mission between the Abu Dhabi authorities' investment arm, Mubadala, and Medgate, a Swiss telemedicine provider. They state their go-back price is about 30 percent. The majority of the patients are mothers and fathers with small kids. What has been surprising for the center is the adoption of the services by Emirati nationals. CEO Mina Hamoodi said preliminary marketplace studies forecast that it would be largely ex-pats choosing the provider, but instead, 80per cent of the users had been UAE nationals. There is 25 full-time personnel in the center who's particularly educated in Telemedicine. The important downside to their service is that the patients have to be insured via Daman, making it inaccessible to different coverage insurance cardholders.

of С. Administration utilization Telemedicine: Telemedicine applications can be characterized into two fundamental sorts, as indicated by the planning of the data transmitted and the communication between the people included-be it well-being proficient to-wellbeing expert or well-being proficient to-understanding (Craig and Patterson 2005). Sanders, Simpson et al. (2014), in an article expressing that a basic deficiency in doctors' supply in the US has required inventive ways to deal with doctor administration conveyance. Telemedicine is a suitable administration conveyance model for an assortment of doctor and well-being administrations. Telemedicine is best when connected where doctor assets are rare, quiet consideration is time delicate, and administration volume perhaps disseminated over a system. Lack of basic consideration and nervous system science authorities have prompted teleemergency unit tele-stroke benefits in clinic settings. These emergency clinic-based telemedicine administrations have picked up acknowledgment and suggestions. Some anticipate that Telemedicine will significantly change well-being administrations in the industrialized world by moving social insurance conveyance away from medical clinics and centers into homes. Heinzelmann, Lugn, and Kvedar (2005) express that customers are responsible for their prosperity with telehealth advancements.

Gittlen (2017) introduced the top advantages of utilizing innovation for patient commitment: (n=595 reactions) Support patients in efforts to be healthy - 67per cent, Provide inputs to providers on how patients are doing when not in the clinic - 60per cent, Create an ecosystem that allows for better predictive analytics around patient health and more timely intervention - 51per cent, Augment current capabilities of the bricks-and-mortar health system - 47per cent, Provide extra motivation to patients since they know clinician will observe data - 29per cent, Replace case management and other personnel-intensive ways of monitoring patient behavior - 19per cent and Create a mechanism that allows people to make high-risk behavior more difficult - 16per cent. The survey respondents say that patient engagement technology tools can create an ecosystem that allows for better predictive analytics around patient health and more timely intervention. Insights Council members also weigh in on the most effective patient engagement technology tools as below: Biometric measurement devices (e.g., wireless scales or glucometers) -85per cent, Apps - 75per cent, Texting - 70per cent, Wearables - 68per cent, Email - 65per cent, Web-based interactive programs (e.g., cognitive behavioral therapy) -63per cent and Portals – 58per cent.

D. Healthcare professionals' perceptions and telemonitoring: Nainggolan (2012), in her article on "telemonitoring by pharmacists boosts BP control," explicit that a cluster-randomized trial listed 450 adults with blood pressure, which is uncontrolled in Minneapolis-St. Paul metropolitan space. Participants in each health professional

intervention and usual care teams were asked to go to a probe clinic for follow-up when 6 months of intervention, at the top of the 12-month intervention amount, and 6 months when the intervention terminated. With 6 months of intervention, the pressure was controlled in 71.8per cent of patients within the telemonitoring cluster and 45.2per cent of these within the usual care cluster. Six months when the intervention terminated, 71.8per cent of patients within the telemonitoring cluster still had controlled pressure, compared with 57.1per cent of these within the usual care cluster. Among the 362 patients, the UN agency attended all 3 follow-up visits, 50.9per cent of these within the telemonitoring cluster had controlled pressure in the slightest degree visits, compared with simply 21.3per cent of usual care patients. Acharva & Rai (2016) evaluated the patients' and doctor's perceptions towards the utilization of Telemedicine in Apollo telehealth services in Asian countries that indicate that concerning 80per cent of patients and 100per cent of the doctors reported their satisfaction with the standard of treatment given through Telemedicine. About 90per cent of the participants found Telemedicine efficient, and 61per cent of the doctors found a rise in patients' flow. Issues encountered in Telemedicine were 47per cent in technical problems and 39per cent in time planning by doctors and 31per cent of patients were uncomfortable facing the camera, and 100per cent had technical problems. In the current study, most participants were comfortable using Telemedicine, which may be due to the participants' average young age. Chambers & O'Connell (2013) demonstrated that incorporating telehealth technology into the practice nurse's everyday practice can enhance clinical management. In their approach, they developed a simple telehealth application, 'FLORENCE,' which uses SMS texting by the patients from their mobiles to the general practice website to be viewed by the practice nurse. The practice nurse can sign up a patient on 'FLORENCE' and select the mutually agreed health plan. This ensures the patient's commitment to their health is in line with goals jointly agreed with their practice nurse. This active engagement between the patient and the nurse helps achieve better health outcomes, adherence, and increased productivity.

E. Consumer's perception of Telemedicine: Current study supports Telehealth as a promising approach to increasing access to worry and rising patient outcomes. However, customer views on Telehealth will influence engagement with interventions and impact health behavior and clinical outcomes. Davis (1993) states that perspective towards technology employment may be a major determinant of whether or not a client can use it. Temperament to use telecare can increase one's perspective to use high and positive. In line with Huang (2013), a user's perspective is highly influenced by the service's perceived quality. A study by Cheema (2015) on Video visits: a closer look at the patient's satisfaction and quality of virtual medical care surveyed 1403 respondents. In which 92per cent tabulated

overall experience with video visits as excellent and very good. Patient participation via video visits justifies the need to continue promoting the use of virtual health technologies. Hsieh (2015) mentioned in his study that once potential users understand associate innovation to be in line with their expected necessity and values, there is a better likelihood that the users would be willing to adopt the innovation. Therefore, understand quality is going to be leading towards the intention to use the technology.

F. Insurance and legal perspective for services of Telehealth: As per the Telemedicine update by Gever (2015), dynamic compensation models, further payments for remote patient care, and evolving legal tips are slowly moving Telemedicine from a brand new trend to a wellestablished type of provision. Payers need not get hold of a lot of services performed by suppliers. They're willing to get hold of quality care that helps patients improve and keep well, which eventually reduces prices. They can also get hold of on-demand services and see Telemedicine as the simplest way of meeting those goals. Cigna and Aetna give the variable type of compensation for telemedicine services and state that it'll expand its telemedicine reach to cover 20 million enrollees in 2016. The Future Health Index (2018), commissioned by Philips, analyzed sixteen countries, supported many factors to supply insights into the journey to value-based care. The report states that Telehealth is directly coupled to the 3 pillars of value-based care that the 2018 Future Health Index (FHI) has combined within the value live. It enhances access to transferal care among the reach of a lot of individuals. It boosts potency by reducing prices and promoting higher outcomes through permitting care to be delivered quickly across distances and pooling tending infrastructure. And it supports satisfaction by a lot of patients to receive trustworthy care to suit a range of wants on demand. However, telehealth services' recent proliferation has raised issues concerning the method fees levied and split among patients, tending, and platform suppliers. Lack of third-party compensation was viewed as a big challenge to implement telehealth practices, as cited by 59per cent of respondents. One of the most problems is that most compensation models usually reward volume (number of patients served) instead of the worth of a tending interaction.

V. CONCLUSIONS

The majority of the respondents are willing to use telehealth services for mainly routine care. The respondents also agree that Telemedicine will save time and travel, provide improved access to healthcare. Telemedicine also saves money and provides the equivalent experience of consultation as in-person visits. The respondents also want the telehealth services to be covered by Insurance for better usability and acceptance of telehealth services in the future. Despite these compensation challenges, there is a unit of varied advantages to increasing Telehealth's employment to satisfy the nation's demand for health care. The convenience of care, hyperbolic access, improved employee productivity from not requiring time without work and travel appointments, decreased prices, and practitioner time savings area unit some reasons why suppliers, payers, and employers alike area unit moving forward with additional and additional telehealth solutions.

It is simple to assume that telehealth technology will be a key strategy to bring down prices. Owing to remote healthcare's lower prices and hyperbolic employee productivity and satisfaction, organizations can probably request telehealth solutions. Moreover, payers, like employers, could also be

Lured by decreased medical expenditures, and the

REFERENCES

- Acharya, R.V., & Rai, J. J., Evaluation of patient and doctor perception toward Telemedicine in Apollo telehealth services, India. Journal of Family Medicine and Primary Care.,5(4) (2016) 798-803.
- [2] American Well, Telehealth Index: 2017 Consumer Survey; https://static.americanwell.com/app/uploads/2018/03/American_Well _Telehealth_Index_2017_Consumer_Survey.pdf; accessed on May 25 (2019).
- [3] Bresnick, J., Telemedicine case study: remote monitoring in the ICU at Mercy. https://ehrintelligence.com/news/telemedicine-case-studyremote-monitoring-in-the-icu-at-mercy., (2014).
- [4] Chambers, R., & O'connell, P., Florence'aims to improve patient concordance and clinical outcomes. Practice Nurse, 43(1) (2013) 58-65.
- [5] Cheema, S., Video visits a closer look at patient satisfaction and quality of virtual medical care., Applied Research Projects. 30. Doi.org/10.21007/chp.hiim.0018., (2015).
- [6] Craig J, Patterson V., Introduction to the practice of Telemedicine". J Telemed Telecare., 11(2005) 3–9. [PubMed]
- [7] Dahroug, H. S., Telemedicine project in remote and rural communities – Egypt. Journal of International Society of Telemedicine eHealth. 5(5) (2017) 190-194.
- [8] Davis, F. D., User acceptance of information technology: system characteristics, user perceptions, and behavioral impacts. International Journal of Man-Machine Studies. 38(3) (1993) 475-487.
- [9] Geyer, S., Telemedicine update". Managed Healthcare executive. 9(2015) 30-31.
- [10] Girard, P., Military and VA telemedicine systems for patients with traumatic brain injury., Journal of rehabilitation research and development, 44(7) (2007) 1017-1026.
- [11] Gittlen, S., Health Care Providers on the Problems of Patient Engagement Design., NEJM Catalyst, 2017 catalyst.nejm.org., (2017).
- [12] Telemedicine on the Rise in the UAE by Global Healthcare Insights., https://globalhealthi.com/2017/04/21/telemedicine-rise-uae/ accessed, (2017) (2019).
- [13] Heinzelmann PJ, Lugn NE, Kvedar JC., Telemedicine in the future. Journal of Telemedicine and Telecare, 11(8) (2005) 384–390.
- [14] Hilty, D.M., Ferrer, D.C., Parish, M.B., Johnston, B., Callahan, E.J., and Yelloeless, P.M., The effectiveness of telemental health": A 2013 Review. Telemedicine and e-health, 19(6) (2013) 444-454.
- [15] Hsieh, P.J., Physicians' acceptance of electronic medical records exchange An extension of the decomposed TPB model with institutional trust and perceived risk., International Journal of

convenience and promptness of care could also impel customers that it offers.

Disclosures: The authors have no commercial associations that might be a conflict of interest in relation to this article.

ACKNOWLEDGMENT

We want to thank all those who helped us complete this work. Special thanks to Dr. Ketan, Dr. Mishal, and Safeya, who kept me motivated throughout the study.

Medical Informatics. 84(1) (2015) 1-14.

- [16] Huang, J. C., Innovative healthcare delivery system- A questionnaire survey to evaluate the influence of behavioral factors on an individual's acceptance of telecare., Computers in Biology and Medicine. 43(4) (2013) 281-286.
- [17] Jaglal, S.B., Haroun, V.A., Salbach, N.M., Hawker, G., Voth, J., and Lou, W., Increasing access to chronic disease self-management programs in rural and remote communities using Telehealth". Telemedicine and e-Health, 19(9) (2013) 652-657.
- [18] Joseph, G., Telehealth saves money, improves patient engagement and outcome., Health data management. https://web.b.ebscohost. Com., (2015).
- [19] Knight, L., Telemedicine, coming together for the UAE? https://www.wamda.com/memakersge/2017/04/telemedicine-uae., (2017).
- [20] MacLaren Stephen., A virtual doctor will see your UAE employees now". Gulf Business, Healthcare, (2017) 04. https://gulfbusiness.com/virtual-doctor-will-see-uae-employees-now/
- [21] Nainggolan, L., Telemonitoring by Pharmacists boosts BP control". News heartwire from Medscape. (2012) 10
- [22] Parmanto, B., Lewis, A. N., Graham, M.S., and Bertolet, M. H., Development of the Telehealth Usability Questionnaire (TUQ)., International Journal of Telerehabilitation. 8(1) (2016) 3-10.
- [23] Philips releases 2018 Future health Index Report, https://www.medgadget.com/2018/11/philips-releases-2018-futurehealth-index-report.html, accessed on May 10(2019).
- [24] Sanders, R. B., Simpson, K.N., Kazley, A.S., Giarrizzi, D.P.. New hospital telemedicine services: the potential market for a nightime telehospitalist service. Telemedicine and e-Health. 20(10) (2014) 902-908.
- [25] Turner, J.W., Thomas, R.J., & Galliun, M., Consumer response to virtual service organization: the case of Telemedicine. International Journal of Medical Marketing, 1(4)(2001) 309-318.
- [26] Wingfield, N., Thomas, K., Abelson, R., Amazon, Berkshire Hathaway, and JP Morgan team up to try to disrupt health care. The New York Times., 2018).
- [27] World Health Organization., Telemedicine: Opportunities and Developments in the Member States, Report on the Second Global Survey on eHealth 2009. Switzerland: WHO Press; (2009). [Last cited on (2015) Available from: http://www.who.int/goe/publications/goe_telemedicine_2010.pdf.
- [28] Dr. X.S. Blessing NimaSajai, "A Study To Assess The Knowledge Regarding Application Of Informatics In Community Health Nursing Among B.Sc.Nursing Students At Applied Medical Science College In Alnamas., SSRG International Journal of Nursing and Health Science 5(2) (2019) 6-11.