BRIEF REPORT

DIRECT-TO-CONSUMER CARE IN COVID-19 AND OTHER PUBLIC HEALTH CRISES

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KEYWORDS:

COVID-19

Direct-to-Consumer Care

Pandemic

Public Health

ABSTRACT: Direct-to-consumer care (DTC) is a popular subset of telemedicine ideal for delivering large volumes of health care during a pandemic or other public health crisis conditions. DTC has the potential to relieve the burden of health care shortages and improve patient safety and outcomes during widespread disease. Below is a brief discussion exploring perspectives and evidence for DTC as a business modality, including the advantages and disadvantages of using DTC for providing health care during a pandemic.

INTRODUCTION

Direct-to-consumer care (DTC) is a new modality of providing telemedicine care based on patient preferences and needs. It is grounded mainly in the private sector and has evolved into a multibillion-dollar industry.

In a 2018 survey, before telemedicine's current noted value, 100 hospital executives from the U.S. placed Amazon and telehealth as the most significant disruptors of the health care market with reimbursement rates thought to be the largest setback to further incorporation and usage.[1] For companies that adopted the DTC model despite lower reimbursement rates than in-office visits, the model has been a tremendous success. HIMS, a company specializing in men's health, grew to a value of $1.1 billion after just two years of opening, resulting in 550% growth.[2] As the model continues to gain traction, understanding its basic functions and potential in pandemic medicine becomes increasingly important.

DTC caters to the general population, is hailed as the most popular form of telemedicine and offers an array of services ranging from specialty companies for contraceptives or men's health to comprehensive primary care from companies like Lemonaid.[3,4,5] The results of a recent study of 2,216 patients over two years provides insight into patient demographics and utility statistics. In the study, 71% of participants were female, 84% had a registered PCP and 8% chose to self-pay. Sinusitis was the most common complaint in the population, comprising 21% of visits.[6] Providers spent a median of 7.4 minutes with patients during the virtual encounters and generated a prescription 77% of the time; the prescription rates were similar to in-office visit prescription rates of 73%.[6] Over 70% of visits in the study occurred on a Monday through Friday schedule between 8:00 am and 6:00 pm, challenging the idea that DTC provides care primarily during abnormal times.[7]

DTC as a basic health care modality has the potential for further use in pandemics and other public health crisis as demonstrated by the significant growth in usage during COVID-19; one analysis revealed a 14% increase in telemedicine visits in a system already regularly utilizing telemedicine.[8] The analytics company, Forrester, predicts telemedicine visits to exceed one billion in the U.S. in 2020 due to current conditions—an unprecedented number in the history of telemedicine.[9]

ADVANTAGES

Primary advantages for telemedicine during a pandemic include decreases in costs, hospital stays and mortality rates with an increase in accessibility, quality of care and patient satisfaction. Additionally, advantages include usefulness in treating infectious disease and providing mental health care.

DTC has the potential to triage patients, keeping valuable hospital space available for patients in dire need during a public health crisis, while maintaining primary health care for less serious conditions. The U.K. Department of Health reported a 15% reduction in emergency room visits, a 20% reduction in emergency admissions, a 14% reduction in elective hospital stays, a 14% reduction in length of stay and an overall 45% reduction in mortality from appropriately incorporated telehealth and telecare modalities in 2011.[10]

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 Print ISSN: 1877-573X
DOI: 10.33181/12054

Beyond DTC directly, telehealth initiatives for paramedics and first responders, including Emergency Telehealth and Navigation (EThaN), have decreased ambulance transportation to emergency departments by 56%, providing a wealth of opportunities for incorporating telehealth modalities into public health disaster care.[11] DTC telemedicine can now be offered at competitive prices during the COVID-19 pandemic, as demonstrated by insurance company Aetna's decision to offer a zero co-pay telemedicine visit. Other insurance providers echoed the decision in an attempt to improve access to care for patients.[12]

Medicare's decision under the Coronavirus Preparedness and Response Supplemental Appropriations Act, 1135 WAIVER, and Coronavirus Aid, Relief, and Economic Security Act (CARES) to reimburse telemedicine visits at equal rates and in the absence of pre-established care with a provider additionally improved access to telemedicine.[13,14] The various legislative changes enumerated in the above bills are setting a precedent for telemedicine's use in future public health crises. Broader usage of the technology is feasible and more sustainable with increased funding. A direct-to-consumer method of delivering the care would further improve patients' access to appointments.

In a meta-analysis of telemedicine's use in infectious disease medicine, six of seven studies demonstrated patient satisfaction rates above 97%. The same analysis demonstrated mixed results in patient mortality over in-person visits and called for more research on the efficacy of telemedicine over clinic medicine. Readmission and compliance rates were found to be statistically similar between telehealth and in-person visits.[15]

Additional work investigating telemedicine in infectious disease treatment showed favorable results in antimicrobial stewardship programs for HIV and HepC patients, demonstrating as much as a 30% increase in appropriate antibiotic prescribing in some populations.[16] Treating infectious disease without the need for exposing uninfected individuals or for placing infected individuals at further risk during a public health crisis and improving the quality of care for infectious disease is supported by telemedicine's positive success.

During the initial stages of the COVID-19 pandemic this year, telehealth served to offload the immediate shortage of health care, with Massachusetts General Hospital reporting rates 10–20 times higher than normal telemedicine utilization.[17] As the COVID-19 pandemic progressed, telemedicine visits plateaued in some populations. In contrast, in-person visits began to climb, demonstrating the viability of telemedicine as an acute answer to the health care crisis.[3]

COVID-19 specific mental health symptoms at the population level, including anxiety-driven panic buying and paranoia about attending community events, need mental health care beyond the previous community needs and are perfect candidates for aid from DTC, traditional telemedicine or telepsych encounters. Telemedicine is supported as an effective modality for aiding in the treatment of mental health conditions and is encouraged to handle the increasingly large volumes of mental health patients in need of psychiatric care.[18] Other mental health benefits of DTC include telemedicine being used to bring back the intimacy of home visits that many patients value and to integrate physician-patient relationships with quality care.[19] DTC takes the benefit one step further by allowing patients to choose their appointments on their own time, enabling them to play a more active role in their care.

DISADVANTAGES

Disadvantages for the use of telemedicine include the considerable concerns of quality of care and at-risk funding in the future. Teledoc, a DTC primary care company that provided over two billion DTC telemedicine visits to the public, has been criticized after research discovered poorer performance and lower diagnostic care in a California-based population.[20] Quality issues with the telemedicine model explain the slowness for its adoption by most health care organizations (HCOs) as, during the early stages of the pandemic, only 24% of HCOs in the U.S. had virtual care programs in place.[9]

Underutilization during emergencies has been prominent since the advent of telemedicine, as documented during a period of 17,000 public health emergencies between 1980 and 2013, in which only 19 articles documented the use of telemedicine in the use of public health care.[21] Some underutilization may be attributed to a lack of funding on the parts of Medicare and other insurance providers that have only recently provided additional funding.

Balancing the physician requirement of requiring adequate reimbursement with former ideologies of DTC effectively reducing cost will be a challenge that must be overcome, particularly in light of the current $3.6 trillion annual health care expenditure budget and the need for large-scale quality health care on demand.[22] The continuation of increased funding beyond the pandemic and patient response to quality concerns remain in question and will directly impact the usability of telehealth for general use and future public health emergency use.

CONCLUSION

Direct-to-consumer care and telemedicine are valuable options for providing additional health care options during an acute crisis in a variety of capacities. Extensive research into quality improvement and long-term reimbursement will be required to incorporate DTC into public health crisis planning appropriately.

AUTHOR DISCLOSURE(S):

The author(s) declare no relevant financial affiliations or conflicts of interest.

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