

Telehealth Services in Long Term Care (LTC):
An Alternative Healthcare Delivery Model to
Provide Treatment in Place and to Mitigate
COVID-19 Related LTC Health Outcomes

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About Me



- BSN- 2015
– College of Saint Scholastica
- Will obtain my DNP
May of 2021
- Cardiac RN at Abbott Northwestern Hospital
- 2 years of Home Care RN experience



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Objectives

- DNP Project Journey through a Pandemic.
- Telehealth Perceptions in the Literature.
- Telehealth and the Technology Acceptance Model (TAM).
 - Poll.
 - Future implications for measuring Telehealth sustainability in practice.



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DNP Project Journey

- Before COVID-19:
 - Attempted to do a post-discharge telehealth project for Acute Coronary Syndrome patients.
 - Low #s & No interest.
- Then COVID-19 happened...
 - Connected with MAGIC through a school faculty member to evaluate telehealth in LTC remotely.



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Telehealth Perceptions

- **Study Aim:** To survey a nationally representative sample of LTC physicians & APPs to measure perceptions and desired functionality of telemedicine in LTC to reduce potentially avoidable hospitalizations.
- 428 surveys; 7-point Likert scale (1=strongly agree, 7=strongly disagree).
 - "Telemedicine may increase overall efficiency" n(422), mean score= 2.68.
 - "Telemedicine may fill an existing service gap" n(428), mean score = 1.95.
 - Telemedicine may help avoid resident transfers to the emergency department/hospital." n(422), mean score =2.13.
 - "Telemedicine takes too much information technology expertise to implement." n (426), mean score = 4.46.

• Driessen et al. (2016)



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The Technology Acceptance Model

Perceived Usefulness (PU)

Perceived Ease of Use (PEU)

Question	Negative impact	Not at all	Some what	Moderately	Very
Using telehealth enhances my effectiveness in performing patient care	1	2	3	4	5
Using telehealth makes my job easier	1	2	3	4	5
I find telehealth services useful in my job	1	2	3	4	5
I find telehealth to be useful in patient care management relative to a traditional in-person visit	1	2	3	4	5
Telehealth is useful in providing treatment in place to avoid a transfer to the hospital	1	2	3	4	5

Question	Negative impact	Not at all	Some what	Moderately	Very
Learning to operate telehealth applications is easy for me	1	2	3	4	5
I find telehealth easy to incorporate into my job	1	2	3	4	5
My role in using telehealth for its intended purpose is clear and understandable	1	2	3	4	5
The guidelines and education materials make it easy to execute telehealth for its intended purpose	1	2	3	4	5
The equipment available makes it easy to execute a telehealth visit	1	2	3	4	5



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Time for a Poll!

- Let's assess how this group of experts perceives telehealth's ease of use and usefulness in practice.
- Please answer the 4 poll questions.
- We will discuss the results and what it means for future telehealth implications.



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Poll Results/Future Implications of Telehealth using the TAM tool

- According to the literature measuring these 2 concepts provides insight on how to:
 - Engage staff in making a change.
 - Identify barriers to use.
 - Measure effectiveness of training, knowledge, and policies that ultimately leads to sustainability.



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Thank You!

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References

- Grabowski, D. C., & O'Malley, A. J. (2014). The care span: Use of telemedicine can reduce hospitalizations of nursing home residents and generate savings for Medicare. *Health Affairs*, 33(2), 244–250. <https://doi.org/10.1377/hlthaff.2013.0922>
- Hofmeyer, J., Leider, J.P., Satorius, J., Tanenbaum, E., Basel, D., & Knudson, E. (2016). Implementation of Telemedicine Consultation to Assess Unplanned Transfers in Rural Long-Term Care Facilities, 2012–2015: A Pilot Study. *The Journal of Post-Acute and Long-Term Care Medicine*, 17(11): 1006-1010. <https://doi.org/10.1016/j.jamda.2016.06.014>
- *Institute of Medicine (US) Committee on Evaluating Clinical Applications of Telemedicine*, Field MJ, editor. (1996). *Telemedicine: A Guide to Assessing Telecommunications in Health Care. 2 Evolution and Current Applications of Telemedicine*. <https://www.ncbi.nlm.nih.gov/books/NBK45445/>
- Lewis, J.R. (2019). Comparison of Four TAM Item Formats: Effect of Response Option Labels and Order. *Journal of Usability Studies*, 14(4): 224-236. <https://uxpajournal.org/tam-formats-effect-response-labels-order/>
- Verma, S. (2020, July 15th). Early Impact Of CMS Expansion Of Medicare Telehealth During COVID-19. *Health Affairs*. DOI: [10.1377/hblog20200715.454789](https://doi.org/10.1377/hblog20200715.454789)


