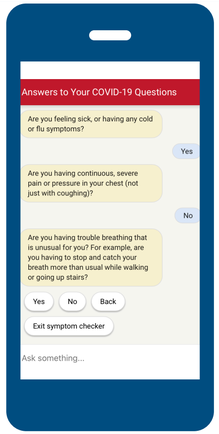
# Reclaiming the Time Between Visits

## Improving Patient-Provider Communication with Asynchronous Technology to Leverage the Time Between Consults

Geri Lynn Baumblatt, MA
gerilynn@mac.com



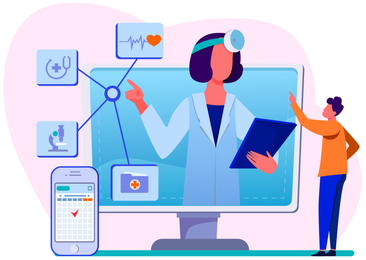

Penn Medicine: COVID-19 bot. Publicly available: https://www.pennmedicine.org/coronavirus/frequently-asked-questions-about-covid-19

COVID-19 has accelerated video visits. But asynchronous communication platforms to leverage the time between visits remain underutilized.

This explores the benefits of chatbots, embodied conversational agents, email, e-prescribing patient education videos and multimedia, and other resources to ensure people get the right information at the right time.

Bi-directional platforms can also be used to ask people about their goals, preferences, solicit questions, and help de-stigmatize communication on topics like depression, abuse, or food security.

## Opportunities



People vector created by pch.vector - www.freepik.com

### Clinician Experience & Education

Few studies assess impact on the clinician experience or their understanding of the benefits of asynchronous communication. In an era of burnout, we should learn how it affects:

- Patient/clinician relationships
- Consults/conversations
- Confidence that patients understand info
- Trust/universal dimensions of social cognition
- Appropriate utilization of Dr. Google

### Family Caregivers

In the COVID-19 era, they often cannot be physically present. Yet, as the population ages, they are increasingly important.

While these platforms make it easier than ever to include family caregivers, both the platforms and how they are implemented need to be proactively designed to support communication, training, and support of the circle of care.

### Content Clearinghouse

Many quality, free and low-cost patient resources exist. Hospitals and clinicians often don't find them as they are scattered across the web. As a result videos, decision aids, and PDFs are underutilized; and organizations often re-invent their own.

An existing free, care communication platform makes it possible to create one place where healthcare orgs can search for, find, and e-prescribe resources.

### Feedback Loop

Asynchronous communication is most successful when paired with quality resources and communication approaches that consider health literacy, decision, behavioral, and online learning science.

These platforms also provide a feedback loop that can be leveraged to help clinicians and content/communication developers understand how to amplify the positive impacts.

**Normalize** 8, 13, 20-21, 44, 59

**Less Decision Conflict** 23, 30, 65

**Safe to Ask/Honest Disclosure** 13, 20-21, 36, 59

More honest online about sex and drug use because the computer didn't judge them 21

Shame and stigma less prevalent in online communication 13

Patients felt emboldened to ask questions in email 36

Patients prefer email to send psychosocial messages 37

**Knowledge** 2-3, 5, 12, 15, 17, 23-24, 28-33, 37, 39, 46, 50, 53-54, 58, 60, 65

**Recall** 18-19

Most felt they gained clarity on disease duration, symptoms, and the time medication takes to start acting 52

Improved knowledge, compliance with diet and bowel prep for colonoscopy 2

Hip surgery patients who viewed multimedia patient ed had significantly better recall & satisfaction 18

**Adherence** ,10-11, 14, 22, 26, 35, 40, 42

**Self Efficacy** 5,10-12, 28-29, 31-33, 37, 50, 57, 60, 66

**Improved Attitude/Confidence** 2-33, 41, 46, 66

**New Health Behavior** 6, 10-11, 42-43

Improved attitude/intention to get colon cancer screening 45

Improved self-management & efficacy for back pain, dyspnea, & heart failure 4

More mammograms, Paps, and flu vaccinations 23

Higher self-efficacy & more use of incentive spirometer & speeding recovery 28

**Patient Exp** 3-5, 18-21, 23, 31, 47, 60

**Clinician Exp** 13, 21, 59

**Improved Consult** 3-4, 20

**Efficiency** 3, 15-17, 21, 33, 45, 48, 52, 56, 59

HCP spent significantly less time on patient ed 44

Surgeons more satisfied w/ visits Patients more confident to ask Q 3

Felt more connected to their healthcare team & better prepared to start convos w/ docs 5

86% of hospitals improved doc communication & 100% improved aggregate HCAHPs top box % 46

**Improved Health** 1, 9, 16, 24, 26-28, 34, 37-8, 55, 58, 61-62

**Less Anxiety** 7-8, 15, 56-7, 61, 64

**Better QoL** 2, 12, 15, 22, 24, 48

Children had less asthma symptom days (81 vs 51/year) & used significantly lower daily dose of inhaled steroids 24

Less anxiety day of colonoscopy 15

Improved health in 12 studies: A1C and FEV 38

**Readmits** 11, 25, 49-50

**Fewer Visits** 1,9,16, 24-5, 37, 51-52

**Quality & Safety** 2, 12, 15, 22, 24, 48

**Length of Stay** 9, 11, 60

44% reduction 30-day readmits in Medicare population 48

14% reduction in total cost of care due to reduced ED and physician office visits 50

Patients needed less sedation med & had shorter procedures 15

**Emerging Impacts**

Clinician Understanding 13
Family Caregiver Efficacy 11
Patient Activation 30 & 64
Less Lonely/Isolated 7-8
Self Advocacy 30
Improved Social Support 57
Improved doc-patient relationship 59
Psychosocial outcomes 37

Clinicians became aware of patient issues they hadn't considered significant & informed changes to conversations & patient ed 13

1. Meneghini, LF et al, 1998 2. Cho, YY et al, 2015 3. Bozic, KJ et al, 2013 4. Boudreault DJ, et al 2016 5. Zan, S et al, 2015 6. Crawford, AG et al, 2005 7. Seavy, K n.d. 8. Weinert et al, 2011 9. Lorig, KR et al, 2002 10. Mahler HI, et al, 1999 11. Mahler HI, et al, 1998 12. Tongpeth, J et al, 2018 13. Das, A et al, 2015 14. Carolan-Olah, M et al, 2019 15. Parker, S et al, 2018 16. Meneghini, LF et al, 1998 17. de Leeuw, RA et al, 2019 18. Dallimore, RK et al, 2017 19. Cornoiu, A et al, 2011 20. Rose, G et al, 2016 21. Mackenzie, S et al, 2007 22. Hayat, U et al, 2016 23. Smith, SK et al, 2010 24. Krishna, S et al, 2003 25. Pierce, LL et al, 2009 26. Kwon, HS et al, 2004 27. Ralston, JD et al, 2009 28. Murray, E et al, 2005 29. Solomon, M et al, 2012 30. Hoffman, AS et al, 2017 31. Denny, MC et al, 2017 31. Lo, SF et al, 2011 33. Lo, SF et al, 2010 34. Steinberg, DM et al, 2014 35. DeKoekkoek, T et al, 2015 36. Houston, TK et al, 2004 37. de Jong, C. et al, 2014 38. Velázquez-López, L t al, 2017 39. Wonggom, P et al, 2020. 40. Muller, AM et al, 2016 41. King, AC et al, 2013 42. Orr, JA & King, RJ, 2015 43. Sebastian, J, et al, 2017 44. Sim, B & Galbraith, K , 2020 45. Meppelink, CS et al, 2015 46. Emmi Solutions, 2015 47. Forster, AJ et al, 2007 48. Graham, J et al, 2012 49. Boyde, M et al, 2018 50. Newman, ED et al, 2019 51. Roswell, RH, 2019 52. Lopez-Olivo, MA et al, 2018 53. Matsuyama, RK et al, 2013 54. Bond, G et al, 2007 55. Cheng, C et al, 2020 56. Weinert, C et al, 2008. 57. Armstrong, AW et al, 2011 58. Choy, MA et al, 2020 59. Melin, M et al, 2018 60. Rathbone, AL et al, 2017 61. Andrade, AD et al, 2014 62. Bickmore, TW et al, 2018 63. Utami, D et al, 2017. 64. Zhan, Z et al, 2018