Telehealth and the Digital Divide: Identifying Potential Care Gaps in Video Visit Use

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Appendix

Table S1: Patient and staff interview schedule

Interview date (each interview 30 mins)	Interviewee	Interviewers
6.17.21	Staff participant #1	A, B, C
6.18.21	Staff participant #2	B, C, D
6.23.21	Staff participant #3	A, B, C
6.24.21	Staff participant #4	A, B, C
7.6.21	Patient participant #1	A, B, C
7.6.21	Patient participant #2	A, B, C
7.7.21	Patient participant #3	A, B, C
7.7.21	Patient participant #4	A, B, C, E
7.7.21	Patient participant #5	A, B, C, E
7.7.21	Patient participant #6	A, B, D
7.8.21	Patient participant #7	A, B, C
7.8.21	Patient participant #8	A, B, C
7.8.21	Patient participant #9	A, B, C

Table S2: Patient Interviews Coding Schema

Category	Sub-category	Code	Code definition
Accessing healthcare	Accessing healthcare at clinic	Transportation is barrier	Transportation is barrier to coming to clinic
		Uses medical transport to/from visit	Uses medical transport service for transportation to/from visit
		Prefers in-person visit	Prefers in-person visit with provider
		Needs to be convinced to do a visit every time	Needs to be convinced to do a visit every time
		Only wants to go to clinic if there's a reason	Only wants to go to clinic if there's a reason to be seen in-person
		Negative experiences with medical transport	Negative experiences with medical transport
	Interventions	Mailing pamphlet would be helpful	Mailing pamphlet would be helpful
		Most comfortable is pamphlet	Most comfortable is pamphlet
		Most helpful is the mobile to help get technology set up	Most helpful is the mobile to help get technology set up
	Phone visit experiences	Phone visits are helpful	Phone visits are a helpful way to receive care
		Phone coverage is spotty	Phone coverage is spotty and can impact quality of the visit
		Waited for the phone call an hour before	Waited for the phone call an hour before the visit start
		Sent in paperwork prior to phone visit	Sent in paperwork prior to phone visit
		Had phone visit at home	Had phone visit at home
		Had phone visit in car	Had phone visit in car
		Would have preferred video	Would have preferred video
		prefers phone visit	Prefers phone visit
	Virtual visit experiences	Don't recall	Doesn't recall if offered virtual visit when called to schedule appointment
		Virtual visit transitioned to phone	Virtual visit was transitioned to phone due to technical difficulties
		Likes phone visits but something missing	Likes phone visits but something is missing by not seeing the provider's face
		Provider requested a phone visit	Provider requested a phone visit
		Virtual would be okay after first visit	Virtual would be okay after first visit with provider
		Virtual visits are helpful	Virtual visits are a helpful way of accessing care
		Internet access okay	Internet access for visit was sufficient
		Video call with family or friends	Have participated in a video call with family or friends
		Using the video visit technology was fine	Using the video visit technology was fine

		Personal presentation	Concern about personal presentation if doing a virtual visit
	What would influence to try virtual visit	Would do a virtual visit if could use the technology	Would do a virtual visit if could use the technology
		If can't make it to office	If can't make it to office
		If had symptoms to show	If had symptoms to show
		Prefers virtual visit	Prefers virtual visit
		Scared of virtual visits	Scared of virtual visits
		Would only do a virtual visit if after hours	Would only do a virtual visit if after hours
		Would do a virtual visit if provider requested it	Would do a virtual visit if provider requested it
Technology	Confidence with technology	Wish could get help	Wish could get help with technology
		No one to help	No one is available to help with technology
		Seems to be reluctance to ask others for help	Seems to be reluctance to ask others for help with technology
		Not sure how to use technology	Not sure how to use technology
	Experiences with technology	Value technology	Value the benefits of technology
		Want to learn about tech	Interesting in learning about how to use technology
		Family, caregiver or friend can help with technology	Family or friend can help with using and learning about technology
		Using tech can be frustrating	Using tech can be frustrating for some
	MyChart access	Family or friend has access to MyChart	Family or friend has access to MyChart
		No one else has access to MyChart account	No one else has access to MyChart account
		Not set up as proxy MyChart user	Family member not set up as proxy MyChart user
	MyChart awareness	Heard about MyChart through clinic	Patient heard about MyChart through their clinic
		Can't recall how heard about MyChart	Can't recall how heard about MyChart
	MyChart experiences	Used MyChart past week	Used MyChart in the past week
		Yes - have MyChart account	Has a MyChart account
		Like help with MyChart	Patient would like help with installing/using MyChart
		Was not successful in using MyChart	Patient was not successful in installing or using MyChart
		No offer for setting up MyChart	Patient did not receive an offer for setting up MyChart
		Privacy concerns	Privacy concerns related to using technology

	MyChart setup	Clinic staff helped with MyChart setup	Clinic staff helped with MyChart setup
		Setup MyChart on own	Patient setup MyChart on their own
		No help setting up MyChart	No help setting up MyChart
Typical week	Activities	Basic needs	Typical week includes a focus on basic needs
		Raising children	Typical week involves raising children
		Caretaking	Typical week focuses on caretaking
		Medical needs	Typical week focused on medical needs
		Volunteering	Typical week focuses on volunteering
		Recreation	Typical week focuses on recreation
	Caregiver status	No caregiver	No caregiver for help with day-to-day tasks
		Yes caregiver	Caregiver for help with day-to-day tasks
	Grocery transportation	Walk or bike	Walk or bike for getting food
		Drive	Drive for getting food
		Caregiver	Caregiver gets food
	Living situation	Rent room	Renting room as living situation
		Extended family	Extended family in living situation
		Lives in home	Lives in home or mobile home
	Worries	Note safe in neighborhood	Worry - does not feel safe in neighborhood
		Worry about money	Worried about if enough money to cover expenses
		Worry about care for partner	Worry about care for partner if I'm not around
		Worry about health	Worry about health
		Worry about meanness in the world	Worry about meanness in the world
		Worry about home upkeep	Worry about whether can continue +A4:D79to upkeep home

Table S3: Staff Interviews Coding Schema

Category	Code	Code definition
Patient barriers	Trouble setting up MyChart	Some patients are having trouble accessing MyChart
	MyChart challenges - new updates	Some patients might be having challenges with MyChart due to the new update - not able to find things
	Older patients NOT having challenges with tech	Some say that older patients are NOT having challenges with the tech for virtual visits, at least to the degree that many think
	Barrier - remembering MyChart password	Barrier for patients can be remembering their MyChart password
	Barrier - pre check-in process	Pre-check in process barriers include updating info if needed, answering Medicare questions, finding e-signature

	Barrier - turning off pop-up blockers	Some patients not sure how to turn off pop-up blockers
	Takes a while for patients and clinics to get used to changes	Can be challenging for patients and clinics to work through any changes, such as adding in pre-check-in
	Not enough time precheckin	Patients are not allowing enough time for pre-check-in
	No computers	Lots of patients don't have personal computers
	Internet access challenges in rural areas	In rural areas, internet access can be challenging for patients
	Tech barriers - challenging to describe	Patients sometimes have a very hard time explaining the technology barrier they're encountering
	Pre-check-in - not skipping meds	Prefer that patients cannot skip the medication names in the pre check-in process
	unreliable devices or data plans	Patient smartphone devices or data plans can be unreliable
Modality considerations	Older patients - need help with technology	Older patients need help with technology
	Marginalized patients - challenges with virtual visits	Marginalized patients, such as those who need psychiatric help, are having lots of challenges with virtual visits
	Patients deciding about modality	Clinics decide on if modality will be virtual or phone based on patient preferences
	Switch to phone visits - due to patient technology challenges	A switch from a virtual visit to a phone visit is often due to patient technology challenges (internet connection not strong enough, can't figure out apps, etc.)
	Older patients want phone due to transportation	Older patients want phone visits due to how challenging it can be in getting transportation to the clinic
	Tech barriers discovered through prior experiences	Clinics sometimes know a patient has had a previous challenging virtual visit experience, so this is how they identify they might experience challenges again
	Some conditions not a good fit for virtual visits	Some medical conditions, such as related to psychiatry (e.g. paranoia), lead patients to not want virtual visits
	Young people not able to do virtual visits	Some young people are not able to do virtual visits, such as those with low resource access and those who have not experienced the internet much
Clinic staff interventions	Prep call ahead of visit - mixed value for patients	Some patients had positive experiences, while others didn't want, a prep phone call ahead of a virtual visit
	MAs important role	MAs play an important role in helping patients prepare for virtual visits
	MA's logging into MyChart	MAs find that they need to log into MyChart to "see" what the patient is seeing
	Clinics using algorithm	Clinics are using an algorithm for scheduling that matches visit type with the appropriate modalities. Virtual is often what's first
	Calling patients more helpful	Calling patients for help with virtual visits is better than providing them with resources
	Want algorithm for troubleshooting	Want a workflow/algorithm for helping patients troubleshoot through technology issues
Support considerations	Troubleshooting difficult over the phone	Troubleshooting virtual visit access issues can be difficult when doing so over the phone
Future intervention ideas	Can provide resources during in-person visits	Clinics can provide resources for virtual visits during in-person visits

	Home visits helpful	Home visits to help patients get their technology working would be helpful
	Help in clinic	Would be helpful to help patients with tech issues in the clinic, so they could then do a virtual visit on their own
	Patients feel isolated	Some patients feel isolated from the community, a home visit to help with tech and other sDOH would help with isolation
	Kiosks in local libraries	Setting up kiosks in local libraries for patients in rural areas, for conducting virtual visits, might help patients
	Share resource guide during their visits	Most helpful to mention and share resource guide during in-person visits
	How many patients experience barriers?	Would be helpful to know what proportion of patients are experiencing barriers. Is there a large enough proportion to warrant time and energy to addressing barriers?
	Flag in Epic not helpful	Flag in Epic - to identify patients who might be at risk of not having a successful virtual visits - would not be helpful
	Flag could be helpful	Flag in Epic - to identify patients who might be at risk of not having a successful virtual visits - could be helpful
	Trial run could help	Trial run of a virtual visit could help prepare some patients
	Call day ahead could be helpful	Calling a patient the day ahead to help with virtual visit set up could be helpful
Resource guide	Resource guide helpful	Resource guide for patients with info about how to access devices and broadband, could be helpful
	Resource guide as a brochure	Resource guide as a brochure for patients would be helpful
	Not sure if resource guide helpful	Not sure if resource guide would be helpful - don't serve many patients who are not able to do virtual visits
	Share resource guide during scheduling call	Could patients to explain the resource guide during a scheduling call, if time can be allocated for this