Tell Touch – A Digital Health Intervention for the Aged Care Sector
An evaluation pilot

Research Team: Dr Rosemary Fisher, Swinburne University of Technology

Dr Tanya Linden, The University of Melbourne

Ms Thi Kim Cuc Le, Swinburne University of Technology

Mr Antony Linden, Swinburne University of Technology

Swinburne School of Business, Law, and Entrepreneurship
Swinburne University of Technology
Victoria, Australia

December 2022

Executive Summary

This project reports on a pilot evaluation of Tell Touch - a digital communication application. The evaluation had two purposes. Firstly, the developers of Tell Touch wanted to understand the benefits and challenges of instigating a full evaluation of Tell Touch. Secondly, the effectiveness of Tell Touch as a communication platform for complaints and feedback handling in an Aged Care Home was examined from the perspective of the staff who use the application tool.

Tell Touch was developed as a feedback and complaints application tool (app) for use in Aged Care Homes (ACHs). The objective of the app is to improve the quality of care provided to residents by facilitating ACHs to be more consumer-oriented and comply with or exceed the four requirements of the Aged Care Quality and Safety Commission (ACQ&SC) Standard 6.

A review of the literature determined the Technology Adoption Model (TAM) as one of the most effective frameworks used in health care settings to assess the adoption of technology. The TAM has been validated in research as a conceptual model that can predict a substantial portion of the use or acceptance of IT health-related settings. Thus, the TAM was used to develop hypothesis to be explored using quantitative data. Qualitative data was collected to better understand the experience of ACH staff in using Tell Touch; specifically, to understand if Tell Touch was perceived as useful, and if Tell Touch satisfied the needs of ACH management for information that would improve services to residents and meet accreditation requirements.

The data collected came from eight operational and top managers working in six ACHs across Victoria, and was collected over the period April to October 2022.

Findings suggest a full evaluation of Tell Touch is feasible using the research design, tools and methods adopted in this project. Furthermore, early findings from this pilot evaluation indicate Tell Touch does meet the purposes for which it was developed; that is it is an effective IT communication platform for complaints and feedback handling in ACHs.

Table of Contents

List of Abbreviations

ACHs	Aged Care Homes
ABS	Australian Bureau of Statistics
ACQ&SC	Aged Care Quality and Safety Commission
ICT	Information Communication Technology
IoT	Internet of Things
TAM	Technology Acceptance Model
RCACQ&S	Royal Commission into Aged Care Quality and Safety
WHO	World Health Organization

List of Figures and Tables

Appendices

INTRODUCTION

Aged care nurses and consultants, Christine Brodrick and Diana Cooper, developed Tell Touch in 2020 in response to shortcomings they observed in the quality of care provided to residents of ACHs over a 20-year period.

Tell Touch is a digital application (app + web application) developed to enable aged care service providers ensure their complaints and feedback processes are compliant with or exceed the Aged Care Quality and Safety Commission (ACQ&SC) Standard 6. In its design the app uses the key principles of cultural inclusion, accountability, accessibility, and streamlined feedback to collect feedback and complaints from residents of aged care homes and/or their family members/carers, and produce reports that draw on this data. The reports are designed to enable the ACH to meet accreditation report requirements, as well as identify opportunities for improvement in the quality care provided to residents.

The Tell Touch founders invited academics from Swinburne University of Technology to undertake a pilot evaluation of their digital feedback and complaints app. The purpose of a pilot study is to examine the feasibility of conducting a full scale project by identifying potential problem areas. Tell Touch had been implemented in 10 ACHs at the time of the evaluation request and the demand for it was growing. The founders sought independent and rigorous data that would help them better understand the benefits and challenges associated with instigating a full evaluation of the app.

With the approval of Ms Brodrick and Ms Cooper, the intention of this pilot evaluation was modified to become a research thesis submitted by Ms Thi Kim Cuc Le in partial fulfilment of the requirements of the Master of Entrepreneurship & Innovation. Therefore, this pilot provides interpretation of data collected, and is hereafter referred to as an evaluation project.

The evaluation project design commenced 1 December 2021 and finished on 3 March 2022 when approval was received from the Swinburne University of Technology Ethics Committee to conduct the project. Data collection took place over the period April to October 2022, and analysis and initial write up was completed on 28 November 2022.

This report provides information that establishes the need for the app, the evaluation design methodology adopted, findings from the data collected, and a discussion about the findings. It concludes by answering the research questions that guided this pilot evaluation of Tell Touch, including determining if the research method adopted would be suitable for the purposes of an evaluation of Tell Touch.

Background

Globally, the quality of life for the elderly is of concern (Gilbert et al., 2021). In Australia, ACHs, also known as residential aged care facilities, provide accommodation and assisted care living for the elderly. Between 2020 and 2022, approximately 371,000 people were admitted as residents, permanently or for respite care (Australian Institute of Health and Welfare, 2022).

Despite the essential social service residential aged care facilities provide in Australia, there has been an overwhelming amount of damning evidence pointing to failures in the provision of care to residents which has been reported in the media, by academics and policymakers. Documented evidence showed abuse of residents as well as other short comings such as restrictive practices, physical and chemical restraint, restricted mobility, and limited access to health professionals or allied health services. Consequently, these facilities and the personnel employed to work in them have come under intense scrutiny in recent years (Darbyshire & Dwyer, 2021). In a bid to respond to the mounting evidence and address this crisis, in 2018 the Federal Government launched the Royal Commission into Aged Care Quality and Service.

Through a series of studies and submissions, the inquiry found significant flaws within these facilities, chief among them being understaffing in residences, inadequate funding, inadequate ratio of registered nurses to the overall staff, and high staff turnover rates (Eagar et al., 2020). These failings have contributed to a drastic reduction in the contact time between residents and care givers, which in turn reduces the organic development of connections between the providers of care and the residents. The consequences were increased disrespect, ill-treatment, rudeness, and other unpleasant behaviour ultimately reducing the quality of care provided to residents. To use the Commission's specific terms, the incidence of unsatisfactory levels of care became a widespread problem, with estimates indicating that at least 30% of all residents in aged care homes have experienced substandard care (RCACQ&S, 2021b). Ultimately, the Commission concluded that there was a gross lack of personalised care, empathy, and limited emphasis on the needs of the residents receiving care in ACHs.

Collecting complaints and feedback from residents is considered to be one of the most effective methods for identifying substandard care, and raising the quality of care (RCACQ&S, 2021b). However, measuring the extent of quality care provided or substandard care experienced was complex as most approaches neither gave voice to the residents, nor incorporated their perspectives when the standard of care in an ACH was evaluated (Armstrong, 2018). To address this issue, ACQ&SC Standard 6 requires 'an organisation to have a system to resolve complaints...[that] must be accessible, confidential, prompt and fair... [and] support all consumers to make a complaint or give feedback' (ACQ&SC, 2021). However, while the aim was to promote complaint resolution and feedback incorporation internally to improve relationships between residents and the carers, for the most part this system was found to have failed to yield effective outcomes, instead, potentially increasing the rift between residents and care providers, as well as increasing the risk of reprisals in these homes (RCACQ&S, 2021a).

Thus, the evaluation of Tell Touch – even at this pilot stage – is important and potentially critical to the delivery of quality care to residents of ACHs. A successful feedback and complaints app can contribute to addressing a critical problem within the Aged Care industry by enabling improved outcomes for ACH residents including the quality of care provided and therefore quality of life experienced.

The effective development and implementation of an evaluation tool that can overcome the feedback and complaints challenges experienced in ACHs has significant implications for multiple stakeholders. Firstly, the developers of this app will benefit from informed recommendations emerging directly from users identifying the strengths and weaknesses of the app. Next, for residents, their families, and ACH workers, knowing if the app provides an effective platform for communication and accountability may lead to an improved confidence in the ACH and the quality of care provided. Finally, this project also has implications for policymakers and stakeholders with a vested interest in the promotion of aged care in Australia. Given the lack of transparency in the existing systems of complaints handling and feedback implementation, noted in the Royal Commission's report, evaluating the effectiveness of Tell Touch may facilitate an opportunity for wider adoption of this digital communication tool for the benefit of the sector and dignity of the elderly.

Research aims and questions

This evaluation was guided by the following overarching research question (RQ1):

Is Tell Touch an effective IT communication platform for complaints and feedback handling in an ACH?

The project contextualised a well-accepted Technology Adoption Model (TAM) (see Figure 1) to explore the satisfaction and acceptance of Tell Touch in ACHs by examining acknowledged implementation design principles and known predictors of technology acceptance. By so doing, insights into the capacity for Tell Touch to achieve its objectives of enabling ACHs to deliver better care to residents and improving or exceeding compliance with Aged Care Industry standards will be produced.

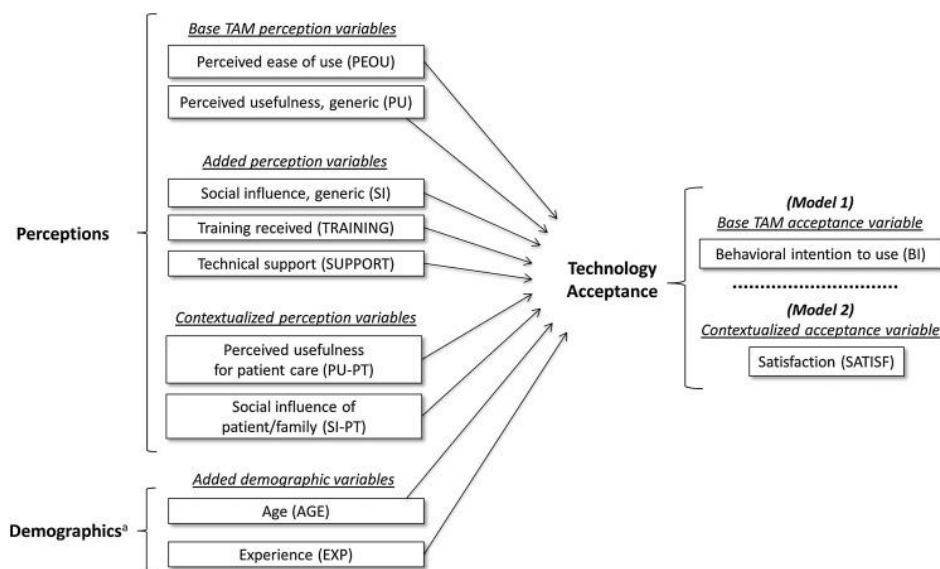**Figure 1**. Conceptual Map of Variables within TAM (Holden et al., 2012)

The TAM has been demonstrated to be an effective framework for guiding the effective adoption of information technology in health settings (Holden et al., 2016). The TAM evaluation process examines the usability, effectiveness and implementation of the technology. These three features have been demonstrated in the literature as key to improving desirable

patient outcomes in the context of health care technology implementation through the adoption of technology by health care professionals.

The TAM developed by Davis et al. (1989) was constructed based on the theory of reasoned action (TRA) to measure perceived ease of use (PU) and perceived usefulness (PEU) of a technology. The TAM has been expanded to various models such as the unified theory of acceptance and use of technology (UTAUT) (Venkatesh et al., 2003) and the diffusion of innovation theory (DIT) (Rogers, 2003). In information systems (IS) research, the TAM is found in 10% of publications and is also used to predict technology acceptance in 30-40% of published manuscripts (Lee et al., 2003). Hong et al. (2006) found the TAM is a comprehensive and generic model that can be utilised to investigate the early adoption and continuity of IT adoption.

In healthcare, Holden and Karsh (2010, p. 159) found application of TAM to be widespread, and the variables of the model validated as able to predict a substantial portion of the intention to use and satisfaction with health IT (Holden & Karsh, 2010; Rahimi et al., 2018).

Using the TAM allows the following hypotheses to be examined:

> H1 - Users perceive Tell Touch as easy to use.

> H2 - Users perceive Tell Touch as useful.

> H3 - Users are influenced to use Tell Touch by important others.

> H4 - Users perceive the training received to use Tell Touch as effective.

> H5 - Users found the technical support provided by Tell Touch as effective.

> H6 - Users perceive Tell Touch as useful for providing patient care

> H7 - Users were influenced by patients/families perceptions of Tell Touch.

> H8 - ACH managers have experienced a positive improvement in their insight into resident issues with the ACH service provided as a consequence of the implementation of Tell Touch.

These hypotheses replicate those used in a well cited paper to predict the acceptance by nurses in a health setting of a piece of IT health technology (Holden et al., 2012). In adapting these replicated hypotheses we are allowing ourselves to be guided by best practice literature on how to evaluate technology acceptance.

Additionally, we examined the user experience with Tell Touch by exploring following questions via in-depth interviews:

RQ2 - Do ACH users of Tell Touch perceive it as useful?

RQ3 – What are the issues associated with Tell Touch that ACH users are encountering?

METHODOLOGY

A mixed methods design was adopted for this evaluation. Mixed methods research combines quantitative and qualitative approaches to collect and analyse data.

In recent years, integrating qualitative and quantitative methods has been widely used in social sciences research because it enables researchers to comprehensively understand the research landscape by capturing the trends and details of a phenomenon (Creswell & Plano Clark, 2018). Bryman (2016) found that mixed-methods research was used in the content analysis of 232 social science journal articles. A growing interest in using mixed methods research has also been seen in a wide range of health-related research in the United Kingdom (Dowding, 2013). Therefore, it was determined that incorporating mixed methods into this evaluation is consistent with modern research practice and will help in answering the research questions.

The Tell Touch founders reached out to their key contacts within the ACHs that had implemented Tell Touch to invite their participation in the evaluation of the app. The research team provided a form of communication to the ACH manager that could be used to alert staff to the forthcoming evaluation project (see Appendix A). The ACH provided the research team with a list of email addresses of those staff who used Tell Touch in their work. This was to avoid a situation where someone who did not use Tell Touch participated in the evaluation. The research team subsequently emailed those on the list, and followed up with one reminder email.

Six ACHs located in Victoria agreed to participate in this pilot evaluation of Tell Touch. The potential sample size was 39 staff eligible to participate in the survey.

Quantitative method

Surveys aim to cover a representative sample of a given population (Evans & Mathur, 2005). The online survey was chosen to collect quantitative data for this study because it is more cost-effective in terms of time and resources than other forms of data collection (Schonlau et al., 2002). This method can capture data that describes, compares, and explains the knowledge, attitudes, and practices of a respondent's behaviour (Wilson & Laskey, 2003). In this study, the online survey was considered the most reasonable method to use because the respondents worked in differently located ACHs and in time pressured work environments. The time constraint is one factor the online survey can overcome.

In addition, the use of an online survey enhances the reliability of the study because the questionnaire is self-administered and consists of many different items (Evans & Mathur, 2005). However, some of the known limitations of online surveys are the low response rate, privacy and trust issues, and ambiguous instructions (Ilieva et al., 2002). The privacy and trust issue was addressed through careful explanation contained within the informed consent.

Qualitative method

Semi-structured in-depth interviews are a popular qualitative data collection method in social sciences research (Creswell, 2013; DeJonckheere & Vaughn, 2019) and are the most frequent source of qualitative data in health service studies (Barnett-Page & Thomas, 2009). This method frequently involves one-on-one semi-structured interviews where a researcher starts with asking open-ended questions uncovering the interview

, 2011). The flexibility of the semi-structured in-depth interview provides the researcher with the ability to extend questions, probe comments, and allow participants to explore their personal views and share insights (Brinkmann, 2013). Compared with other research methods, qualitative interviews offer respondents the opportunity and time to exchange emerging ideas (Brinkmann, 2013). These ideas can generate new ways of thinking and contribute to developing new   , 2011).

This study applied the framework method developed by Gale et al. (2013) for qualitative data analysis in multi-disciplinary health setting. This method allows researchers on the team to compare, contrast and connect the themes that have been coded in a study. This open, critical and reflexive approach from research team members to   , 2016).

To increase the reliability of the encrypted data, the two project researchers (AT and KL) conducted the subject encoding process independently based on a common strategy. Following Gale et al. (2013), the data analysis was conducted in seven steps.

In the first step, the interviews were transcribed. Both coders (AT and KL) were responsible for transcribing the two interview video files by different methods. In the second step both investigators carefully read and reread each transcript to become familiar with the entire dataset to identify emergent initial concepts and ideas. In the third step, initial coding that aims to capture the core ideas and initial concepts emerging from the dataset is undertaken. The fourth step develops a working analytical framework drawing on a second round of coding focused on iteratively   -
                      , 2016). In the fifth step, a more refined code set allows themes to emerge that provide a framework for reporting analytical observations (Gale et al., 2013). The sixth step re-evaluates each theme to ensure that there was no overlap and subthemes were logical. Once the topics were fully identified, they were re-assessed to see whether they provided a level of resolution to the research questions (Braun & Clarke, 2012).

The Survey

The anonymous online survey was implemented using Qualtrics® survey tool. See Appendix B for the online survey questions. A pilot of survey demonstrated it would take less than   A
remained open from mid-April 2022 to mid-July 2022 (see Appendix A for the email to potential participants).

A participant information statement was provided to participants on the landing page of the online survey (see Appendix C). By actively reviewing the information statement and selecting   "I   "   x
participate in the interview and were able to progress to the survey.

The survey was based on a standardised TAM tool contextualised to the ACH setting (see Table 1). To this were added eleven demographic questions, such as age, gender, job title, years of living in Australia and years of working in ACH. The TAM comprised 10 variables captured by between 1 and 6 items each using 7-point Likert   '   '
         '). The 7-item Likert scale belongs to the attitude and evaluation scale system and is widely used in sociology, psychology, information systems and other fields of research (Taherdoost, 2019).

*Table 1. **Items based on TAM model***

Items	Source
Perceived ease of use (6 items) Clear and understandable Easy to use Requires a lot of mental effort (reverse score) Easy to get it to do what I want Easy to learn Easy to navigate	Holden et al., (2016)
Perceived usefulness, traditional (4 items) Improves job performance Increases productivity Enhances effectiveness in job Useful in job	Holden et al., (2016)
Perceived usefulness for patient/family involvement, contextualised (4 items) Improves patient/family interaction I , I , Improves family engagement in res ,	Holden et al., (2016) and adapted to the study context
Perceived usefulness for care delivery, Contextualised and expanded (5 items) Culturally inclusive of residents and family members Improves addressing individual resident needs Improves customising service delivery for individual residents Improves sharing information provided by the residents on care team I , manner	Holden et al., (2016) and adapted to the study context
Social influence (4 items) ACHs thinks I should use it Supervisors think I should use it Colleagues think I should use it Residents/families like that I use it	Holden et al., (2016) and adapted to the study context
Perceived training on system (2 items) Received adequate training Training was clear	Holden et al., (2016)
Satisfaction with system (2 items) Satisfied with system Would recommend it to others	Holden et al., (2016)
Intention to use system (2 items) Intend to use in next 6 months Want to use	Holden et al., (2016)
Complete use of the system (2 items) Use all available features Skip/ignore parts (reverse scored)	Holden et al., (2016)

The Interviews

Two survey participants expressed their interest to proceed to an interview. Each interview took approximately 45 minutes and was conducted via Zoom. The interviewer emphasised the rights of the participant contained within the consent information statement, and asked the interviewees to affirm their consent. Oral consent was recorded prior to the commencement of the interview. The same interviewer conducted both interviews. See Appendix D for the interview schedule.

FINDINGS

This section reports the results of the analysis of the data collected.

Quantitative findings

Descriptive research is applied to summarise characteristics of the quantitative data by identifying or describing a particular aspect, such as the demographic profile of respondents or characteristics of the responses (Saunders et al., 2019). This study used the statistics package SPSS20 to generate a descriptive analysis for each variable using frequency distribution (Given, 2008). A measure of central tendency was employed to describe the results and evaluate the 7-item likert-scale (Sullivan & Artino, 2013).

Demographics of participants

Eight people participated in the online survey (rr = 21%). All respondents were female (n=8, 100%) and aged over 40 (100%). English was reported as the primary language of seven participants (87.5%). Five participants were Australian born (62.5%), and three born in other countries (37.5%). Most respondents have lived in Australia and worked in ACH for more than ten years (n=6, 75%). A range of professional titles was reported among respondents: home manager (n=3, 37.5%), divisional therapist (n=1, 12.5%), registered nurse (n=1, 12.5%), national quality business partner (n=1, 12.5%) and other (n=1, 12.5%). Two types of ACHs were reported: church-owned (n=4, 50%) and privately-owned (n=4, 50%). The ACHs were located in the country region (n=3, 37.5%), the suburbs (n=3, 37.5%), the central business district (n=1, 12.5%), and other (n=1, 12.5%). See Table 2 for demographic data.

*Table 2. **Participant demographics***

Characteristics	n (%)
Age (years)	
41-59	2 (25%)
51-60	2 (25%)
61-70	2 (25%)
71 or older	2 (25%)
Gender	
Female	8 (100%)
Language	
English	7 (87.5%)
Other languages	1 (12.5%)
Ethnicity	
Australian	5 (62.5%)

Characteristics	n (%)
Other	3 (37.5%)
Number of years living in Australia	
1 to 3 years	1 (12.5%)
4 to 10 years	1 (12.5%)
More than 10 years	6 (75%)
Number of years working in ACH	
1-3 years	1 (12.5%)
4 to 10 years	1 (12.5%)
More than 10 years	6 (75%)
Job title	
Home manager	3 (37.5%)
Divisional therapist	1 (12.5%)
Registered nurse	1 (12.5%)
Resident liaison officer	1 (12.5%)
National quality business partner	1 (12.5%)
Tell Touch admin	1 (12.5%)
Type of ACH	
Privately-owned	4 (50%)
Church-owned	4 (50%)
Location of ACH	
Central business	1 (12.5%)
Suburbs	3 (37.5%)
Country region	3 (37.5%)
Other	1 (12.5%)

Perception, acceptance, and use of Tell Touch

The TAM variables were collapsed into constructs of perception of Tell Touch, acceptance of Tell Touch and use of Tell Touch. See Table 3 for means and standard deviations for the constructs and their indicators.

The means for perceptions of Tell Touch were above 4 on the 7-point scale, indicating users had a positive perception of Tell Touch. Overall:

- High means were found for the indicators of: ease of use (M=5.73), usefulness for care delivery (M=4.63), social influence (M=5.10), and training on Tell Touch (M=4.94).
- Moderate means were found for the indicators of: perceived usefulness in job (M=4.47), and social influence of residents/family (M=3.75).

With respect to the individual indicators, no means were below the midpoint on the 7-point scale which would suggest users did not have a positive perception of Tell Touch, and only four of the indicators achieved a mean of less than 4 suggesting a moderate but positive perception of Tell Touch:

- Improves resident/family interaction (M=3.75)
- Improves communications with families (M=3.63)
- Improves sharing of information provided by the residents with others on the care team (M=3.75)
- Believes residents or families like that Tell Touch is used (M=3.75)

The acceptability of Tell Touch was confirmed through high means: satisfaction with Tell Touch (M=5.19) and intention to use Tell Touch (M=5.63). Equally, users indicated they use a lot of the features of Tell Touch (M=5.38).

*Table 3. **Perception, acceptance, and use of Tell Touch***

(a) Perceptions (N = 8)	Mean (SD)
Perceived ease of use	5.73 (1.02)
Clear and understandable	6.13 (0.99)
Easy to use	5.75 (1.28)
Does not require a lot of mental effort*	5.50 (1.31)
Easy to get it to do what I want	5.50 (1.20)
Easy to learn	5.75 (1.17)
Easy to navigate	5.88 (0.99)
Perceived usefulness in job	4.47 (1.64)
Increases productivity	4.50 (1.69)
Improves job performances	4.38 (1.60)
Enhances effectiveness in job	4.38 (1.60)
Useful in job	4.63 (1.77)
Perceived usefulness for residents/family involvement	4.06 (1.26)
Improves residents/family interaction	3.75 (1.75)
Improves sharing of resident information with family members	4.13 (1.46)
Improves communication with families	3.63 (1.77)
I ,	4.75 (1.49)
Perceived usefulness for care delivery	4.63 (1.59)
Culturally inclusive of residents and family members	5.25 (1.75)
Improves addressing individual resident needs	4.75 (1.49)
Improves customising service delivery for individual residents	4.38 (1.99)
Improves sharing of information provided by the residents on care team	3.75 (2.32)
I ,	5.00 (1.51)
Social influence	5.10 (0.98)
ACH thinks I should use it	5.75 (1.28)
Supervisors think I should use it	5.88 (1.36)
Colleagues think I should use it	5.00 (1.85)
Residents/family think I should use it	3.75 (1.39)
Training on Tell Touch	4.94 (2.24)
Received adequate training	5.00 (2.27)
Training was clear	4.88 (2.23)
(b) Acceptance (N = 8)	**Mean (SD)**
Satisfaction with Tell Touch	5.19 (1.62)
Satisfied with Tell Touch	5.38 (1.41)
Would recommend Tell Touch to others	5.00 (1.85)
Intention to use Tell Touch	5.63 (1.03)
Intend to use Tell Touch next 6 months	6.00 (0.76)
Want to use Tell Touch	5.25 (1.58)
(c) Use (N = 8)	**Mean (SD)**
Complete use of Tell Touch	5.38 (1.19)
Use all available features	5.00 (1.51)
Skip/ignore parts of Tell Touch	5.75 (1.39)

Qualitative findings

This section reports on the qualitative findings centred on the three main themes emerging from interview data: the overview of Tell Touch usage, the usefulness of Tell Touch, and the challenges and recommendations. Three tables are provided to describe the main themes, sub-themes and coding examples.

Tell Touch app usage

Overall, the interviewees found using Tell Touch in their work to be highly acceptable to them. They had a positive feeling towards this technology, and preferred using Tell Touch over a paper-based system (see Table 4). They identified the useful features of the app, commented on limitations they found with it, and suggested improvements that could be incorporated into Tell Touch in the future.

Regarding acceptability, users definitely had positive feelings towards Tell Touch:

> *I really like it* (P1).
> *It is very positive, and I am happy using this platform* (P2).

After using this app for a while, both became more familiar with the technology and increasingly used its features relevant to their work:

> *I have been using Tell Touch for nearly a year now and I really liked it (P2).*
> *I can say I'm using all the features…there's nothing that I haven't used yet (P2).*
> *I have been using all the features that's probably needed for my role (P1).*

Users indicated the paper-based system was not as effective for collecting feedback as was Tell Touch:

> *....20% of the feedback within last year, I would say was paper version…I would say 80% of my feedback comes through Tell Touch (P1).*
> *It was paper based. I can say that they didn't use it much (P2).*

Staff valued the T   T   ' user-friendliness and ease of use. They reported that Tell Touch was simple and designed with tailor-made functions for the older generation such as the   x   "   " and multi-language functions. These app features help them communicate better with residents having cognitive impairments or communication difficulties.

> *The faces, smiley and angry faces. That's easy for them to understand and express their feelings about the question I'm asking them (P2).*
> *It's tough for them to understand even with sign language or using body language. So, I just changed it to their language. This is really, really helpful (P2).*

A   T   T   ' feedback data. Collecting   '   q   otes, summarising and identifying the data trends, and categorising information are among the reported themes.

> *For me, the way they are caring allows me to put some internal notes or send out regarding the old feedback and following up the feedback, and that's really, really good (P2).*

The push notification function of the app was also emphasised as a useful feature that benefits staff and residents. The email and message notifications allow staff to promptly act upon he tasks. Staff also think that by sending the automatic reminders, residents are encouraged to put more feedback; thus, to the app facilitates the culture of staff listening and residents being heard.

> *It does remind people to provide their feedback...they are encouraged and they tend to put more feedback (P1).*

A number of comments were related to limitations of Tell Touch. Two recurring sub-themes related to missing features and pain points. The participants commented that Tell Touch needs the interactive functions which could foster staff communications with residents and their families.

> *That really upset me because I can get in touch with their relatives and family. I think that's a weak point of Tell Touch (P2).*

Staff recognised that the app's prompt message function also annoyed some residents as it constantly requested them to put feedback.

> *They do get a lot of prompts ...which can actually annoy them at times because they think that they are obligated to put a feedback in where it's not needed (P1).*

There were suggestions to develop the interactive functions of Tell Touch so staff can easily communicate with residents and their families. This two-way communication would help them in addressing the feedback quickly and efficiently while engaging residents and their families in the process of care delivery easily.

> *I couldn't get anything after I'm sending the solutions and all the things with all the actions that we've done. I think that's needed to be improved (P2).*

In general, staff expressed a positive feeling towards the app. Key to this were the useful functions of the apps which helped staff communicate effectively with residents and help them manage their tasks.

*Table 2. **Emergent Themes: usage***

Themes	Sub-themes	Codes examples
Acceptability	Overall satisfaction	"...I really liked it." [P1] "It's very positive and I'm really happy with using this platform." [P2]
	Technology familiarity	"So I have been using tell touch for nearly a year now and I really liked it." [P1] "... I think it's been one year or maybe more than one year, I'm using this..." [P2]
	Resident's acknowledgement	"Now, residents are getting used to it and they know the purpose of doing this..." [P2] "...But now they know it's not about it, it's just about improving our services." [P2]
	Use all features for job	"I can say I'm using all the features. Yeah, there's nothing that I haven't used yet." [P1] " I " [P]
	Preferable to use versus paper-based system	"...It was paper based. I can say that they didn't use it much." [P2] " % I …I would say 80% of my feedback comes through a tell touch" [P1]
App useful features	Ease of use	"The most I like about it is really user friendly and it's really easy for that generation to understand." [P2] "... this is quite user-friendly system. That's what I found and said it's easy to use." [P1]
	Tailor-made functions for communicating with residents	"The faces, smiley and angry faces. That's really easy for them to understand and express their feelings about the question I'm asking them." [P2] "The language. Because we are in a multicultural age care here and sometimes it's really hard for them to understand even with sign language or using body language. So, I just changed it to their language. This is really, really helpful." [P2]
	Data management	"...You can collect data easily shows you trend that will be helpful..." [P1] "For me, the way they are carving allows me to put some internal notes or send out regarding the old feedback and following up the feedback and that's really, really good." [P2] "... it's easy to see the trends, so you can actually look into the trends and if there's areas that need an attention..." [P1] "...is easy to run reports and see which areas are of main concern easy to identify trends which probably is required for accreditation purposes. " "... it's quite specific if it's a food related, if it's a care cleaning or communication related. So it's differentiated into different categories..." [P1]
	Reminders	"...when someone puts in a feedback, it actually sends me an e-mail to alert me that there's feedback has been put in and so that's what I think it's just brings to my attention immediately..." [P1] "...It does remind people to provide their feedback...they are encouraged and they tend to put more feedback ..."[P1]
App limitations	Missing features	"...that really upset me because I can get in touch with their relatives and their family. I think that's a weak point of Tell Touch." [P2] "... I am not able to have communication with them through Tell Touch, I need to go to their room and have a discussion with them." [P2] "...I think this is one-way interaction. I couldn't get anything after I'm sending the solutions..." [P2]
	Pain points	"...they do get a lot of prompt ...which can actually annoy them at times because they think that they are obligated to put a feedback in where it's not needed." [P1]

Themes	Sub-themes	Codes examples
Suggestions for improving Tell Touch	Develop two-way interactive functions	"I couldn't get anything after I'm sending the solutions and all the things with all the actions that we've done. I think that's needed to be improved" [P2] "… e I can't get in touch with their relatives and their family... I think this point really needs to be improved..." [P2]

Usefulness of Tell Touch

Three critical themes related to the usefulness of Tell Touch are presented in this section, including addressing feedback management for accreditation purposes; enhancing job efficiency and improving care delivery (see Table 5).

Feedback management for accreditation purposes was considered to be inefficient with the paper-based system, but well facilitated by Tell Touch. The app enabled staff to receive first-hand feedback on the outcomes for the scheduling of care tasks, improving the timeliness of feedback and allowing issues to be addressed before they escalated.

> *I receive first-hand feedback and then I'll just transfer it to the people in charge and they always try to take it into action and then change it in the way that's the best (P2).*

O "*reduced pressure*" P) resolve a problem and prevent an escalation. They had not used Tell Touch for accreditation purposes but agreed that the data elicited from this app would be useful for running the accreditation report.

> *I have not experienced any accreditation since I have used the Tell Touch, but I think what I found is it's really good to run reports because you can go as far as you know, I mean one year, two years… (P1).*

The app is useful in increasing job efficiency as it reduces staff time in retrieving, documenting and arranging feedback data.

> *It's easy to manage in terms of then you know then a paper-based feedback form. A lot of time-saving. I found it up quite a time saving too (P1).*

They also highlighted the immediacy of access to information reduced their chance of missing residents' feedback and supported improvement of the decision-making process and efficient distribution of tasks among the care team members.

> *I'll just transfer it to the people in charge, and they always try to take it into action and then change it in the way that's the best (P2).*

The effect on the delivery of quality care was demonstrated through sub-themes such as improving daily care practices, increasing timely- feedback, improving care plans, enhancing relationships between staff, ' f performed tasks and improving the listening and acknowledgment of residents' . Staff revealed that the information captured in the app and the way information was categorised enabled them to see prominent issues that needed to be addressed.

An example described by P2 is that the food services were improved immediately after negative ' received, which made residents *"really happy"* P highlighted the ability of the app to differentiate the specific categories such as food, care or communication field, which allows her to pay attention to the necessary aspects.

> *For example, last week, sorry, last year we had some issues. One of the residents brought it up about the voice and the loud sound at night...So, we had a meeting, a training meeting with them and asked them not to do that. That's really helped us with improving. Very little, but very important issues for residents and for us (P2).*

With constant feedback provided by residents, staff can improve their care plans:

> *So you can end of the month you look at the reports as any you know trends then you raise your action plan, and then you can put an improvement plan as required (P1).*

Various perspectives were expressed concerning the relationship between care staff, residents, and their families. Tell Touch enabled positive feelings among residents as their feedback has been welcomed and acted upon. In turn, the families of residents were happy with these improved interactions and care for their relative:

> *I can say it's been I've got two family relatives; they are so happy with this kind of interaction (P2).*

Staff commented that Tell Touch had shifted the provision of care to a more positive footing:

> *Because when I collect all the feedback, this really helps people who are in charge of the staff to change the way they are doing their tasks (P2).*
> *They know that we are actually ready to assist with any queries or concerns they have so they will bring it to our attention rather than taking it to Commission (P1).*
> *You know letting people know that they have an opportunity to put a feedback in and there's yes we are ready. To listen and acknowledge, that's quite important (P1).*

In summary, the usefulness of Tell Touch was found in its ability to manage feedback for accreditation purposes while enhancing job efficiency and care delivery.

*Table 5. **Emergent Themes: usefulness***

Themes	Sub-themes	Codes examples
Improve feedback management for accreditation purposes	Encouraging residents to put feedback	"...It does remind people to provide their feedback...they are encouraged and they tend to put more feedback ..."[P1] ".... I think that's quite important because if people are encouraged to put a feedback in ..." [P1]
	Receiving first-hand feedback	"I receive first-hand feedback and then I'll just transfer it to the people in charge and they always try to take it into action and then change it in the way that's the best." [P2]

Themes	Sub-themes	Codes examples
	Stop escalating the issues	"...they are you know that we are actually ready to assist with there any queries or concerns they have so they will bring it to our attention rather than taking it to Commission." [P1] "...to listen and acknowledge, that's quite important. So that might you know that probably stops users from going to Commission." [P1] "... So that makes them happy and they don't need to escalate or to take another step to put complain about the issue." [P2]
	Reduce pressure	"...but I can say it reduces the pressure. It helps to not escalate the issues and the problems. Because with these kinds of things, we just try to take action as soon as possible. " [P2]
	Run reports for accreditation purposes	"So that's what I mean is easy to run reports and see which areas are of main concern easy to identify trends which probably is required for accreditation purposes." [P1] " T … I for accreditation." [P1] "...So as I mentioned previously, so it does run reports. You can collect data easily shows you trend that will be helpful. You know that will be required...for accreditation" [P1]
Improve job efficiency	Time-saving	"… -based feedback form. A lot of time saving. I found it up quite time saving too." [P1]
	Reduce missing feedback	" I oes remind me that there's a feedback that you have to act on. It's still open. I ” [P1]
	Improve decision-making process	"...because this is a system where the feedbacks come in, you just respond, it's an, it's like an e-mail responding to an e-mail, whereas it goes straight back to the person who put the e-mail in whereas you know and it does tell you whether the person wants written response or they want just a phone call. " [P1]
	Easily assign the tasks	"...I usually after getting their feedback, try to understand and send an email to the person who is in charge..." [P2] "...I'll just transfer it to the people in charge and they always try to take it into action and then change it in the way that's the best." [P2]
Improve care delivery	Improve daily care practices	"... that's easy to look into the areas Umm which require attention because it's quite specific if it's a food related, if it's a care cleaning or communication related. So it's differentiated into different categories..." [P1] "...We have improved our food services just regarding the feedback we get from the old houses in my age care. So, I can say and now I'm asking those questions about foods, and they are really, really happy with the old changes that happened." [P2]
	Increase timely-manner feedback	"...I do receive a immediate message saying that you have received a feedback. So I can quickly act on it rather than...there's a delay..." [P1] "...we just try to take action as soon as possible." [P2] "For example, last week, sorry, last year we had some issues. One of the residents brought it up about the voice and the loud sound at night...So, we had a meeting, a training meeting with them and asked them not to do that. That's really helped V ” [P2]
	Improve care plan	"...So you can end of the month you look at the reports as any you know trends then you raise your action plan and then you can put an improvement plan as required." [P1]

Themes	Sub-themes	Codes examples
	Improve care staff - residents/residents' ,	"I can say it's been I've got two family relatives; they are so happy with this kind of interaction" [P2] "That is very first-hand information that I have from residents without anyone between us. We have improved our food services just regarding the feedback we get from the old houses in my age care. So, I can say and now I'm asking those questions about foods, and they are really, really happy with the old changes that happened." [P2]
	Improve listening and acknowledging	"..they are you know that we are actually ready to assist with there any queries or concerns they have so they will bring it to our attention rather than taking it to Commission." [P1] "...you know letting people know that they have an opportunity to put a feedback in and there's yes we are ready. To listen and acknowledge, that's quite important." [P1]

Challenges and recommendations

Several challenges were identified with Tell Touch: the technology, resident cognitive capacities, and training of staff (see Table 6).

From the perspective of care staff, even though Tell Touch was purposely designed to be easy to use and user-friendly for aged people, it is still a challenge for most residents to use the app independently.

> *50% of the elderly population still struggle to use the simple iPad functionality of Tell Touch (P1).*
> *It's quite simple to use, but probably not for an aged population (P2).*

Residents with limited cognitive functions were reported to rely on their families or care staff to give feedback:

> *It's really hard for them to understand even with sign language or using body language (P2).*

Cultural perceptions of giving feedback were not necessarily overcome by Tell Touch:

> *There was an issue that they were concerned at first because of their generation. They were so concerned about putting someone in trouble (P2).*

There were indications staff may not have had enough training on Tell Touch:

> *I don't know, maybe it's about training because I'm not trained enough to use this feature and maybe it's already there, but I don't know about it (P2).*
> *I'm not sure these are the only features I'm aware of so I'm using those features. But I'm not sure about the other features (P1).*

Staff also made specific recommendations for the education and training of residents on app usage. Different methods, such as a paper-based system, kiosks or tablets, should be available to enable the collection of feedback from residents with different cognitive and physical abilities.

Unless I've got quite a few residents who can, who got an access to an iPad computer, their personal. So, they use Tell Touch, but others, if they can, they'll just go to the kiosk where it's all set up...They'll use the Tell Touch. But if they can't, they if they can write (P1).

Along with that, they also recommended incorporating the introduction of Tell Touch into the admission process to introduce the feedback system to residents and family members:

So as soon as they come in, this is as part of our admission process, there's a pamphlet in there that tells the, which obviously tells the representatives or consumers that this is the system we use for feedback purposes (P2).

More importantly, the involvement of residents'   T   T considered:

Actually, I'm working on communication with relatives and with their families, and I think that is the big thing that we need to work out and have more interaction with families (P2).

*Table 6. **Emergent Themes: Challenges and Recommendations***

Themes	Sub-themes	Codes examples
Challenges	Technology	...obviously not everyone's good with technology...I found as a challenge because um not everyone find it that even though it's quite simple to use...] [P1] "... 50% of the elderly population still struggle to use the simple iPad functionality of Tell Touch." [P1] "...it's quite simple to use, but probably not for an aged population." [P2]
	Resident cognitive barriers	"...but there's only with the cognition level, especially in an age care with the population, there's limited people who can write." [P1] "...staff does help residents to put their feedback in if they can't do it themselves." [P1]
	Resident concerns	"There was an issue that they were concerned at first because of their generation. They were so concerned about putting someone in trouble." [P2]
	Training of staff's use	"I don't know, maybe it's about training because I'm not trained enough to use this feature and maybe it's already there, but I don' " [P] "...but I'm not sure these are the only features I'm aware of so I'm using those features. But I'm not sure about the other features." [P1]
Recommendation	Education and training	"I think education for elderly, you know, this might be some sort of educations for representatives that should be available..." [P1] "... develop even as some sort of pamphlet with the information that's easy...for everyone can use can use the technology that easily" [P1]
	Different tools to collect feedback	"Unless I've got quite a few residents who can, who got an access to an iPad computer, their personal. So they use tell touch, but others, if they can, they'll just go to the kiosk where it's all set up...They'll use the tell touch. But if they can't, they if they can write." [P1] "That is the kiosks. Everybody can have access. We put it in communal areas, so people really like to use it." [P2]
	Improve admission process	"... So as soon as they come in, this is as part of our admission process, there's a pamphlet in there that tells the, which obviously tells the representatives or consumers that this is the system we use for feedback purposes." [P1]

Themes	Sub-themes	Codes examples
	Increase residents' ,	" Actually, I'm working on communication with relatives and with their families, and I think that is the big thing that we need to work out and have more interaction with families." [P2]

Overall, the qualitative findings captured the essence of the experience of care staff in ACH in using Tell Touch.

Firstly, Tell Touch is highly acceptable to staff as it is easy to use and useful for them although they find some limitations in that it does not have any interactive functions. Secondly, by using Tell Touch, staff improve their ability to collect and manage resident feedback for accreditation purposes. Tell Touch also improves job efficiency by saving time collecting and responding to resident feedback.

More importantly, the app is useful in improving the care delivery in ACHs by facilitating an increase in the quality of daily care practices through the promotion of timely feedback, which enhances care plans. This leads to an improvement in the relationship between care staff and residents and care staff and the families of residents. Another important finding is that staff experience a change in job attitude because they have an efficient mechanism for listening to residents and allowing to acknowledge and act on their feedback quickly.

Challenges that Tell Touch did not overcome related to residents: levels of technology literacy, and cognitive problems. Suggestions related to providing training for residents in using Tell T   ,
                                          ,   feedback loop were made.

Summary of findings

This evaluation was guided by three research questions and proposed seven hypotheses that explored the likelihood that Tell Touch would be adopted by users.

> *RQ 1- Is Tell Touch an effective IT communication platform for complaints and feedback handling in an ACH?*

Both qualitative and quantitative data suggest users find Tell Touch an effective IT communication platform for complaints and feedback handling in ACHs.

Furthermore, the principles that guided the development of Tell Touch (cultural inclusion, accountability, accessibility, and streamlined feedback) appear to be successfully implemented.

Overall, we suggest that Tell Touch would be adopted by other users because current users have demonstrated a high level of acceptance of the technology, and were overall satisfied with it. Table 7 reflects on the hypothesis examined guided by the TAM.

Table 7. **Hypotheses results**

Hypothesis	Findings	Supported/not supported
H1 - Users perceive Tell Touch as easy to use.	Tell Touch users perceived the app as easy to use, clear and understandable, and did not require much mental effort to use. The app is easy to learn, to apply to tasks, and to navigate.	Supported
H2 - Users perceive Tell Touch as useful.	The Tell Touch users perceived the app as useful because it helped increase their productivity, performance and effectiveness.	Supported
H3 - Users are influenced to use Tell Touch by important others.	Supervisors, colleagues and residents/families have a positive influence on staff use of Tell Touch.	Supported
H4 - Users perceive the training received to use Tell Touch as effective.	Most users thought the training received was effective.	Supported
H5 - Users found the technical support provided by Tell Touch as effective.	Data did not emerge that addressed this hypothesis.	Not supported
H6 - Users perceive Tell Touch as useful for providing residents with care	The cultural inclusiveness of the app was rated highest followed by the alibility to facilitated responses to feedback in a timely manner. Users did perceive Tell Touch as useful in providing residents with care.	Supported
H7 - Users were influenced by patients/ ' perceptions of Tell Touch.	Families of residents were reported as only moderately influential on the decision by staff to use Tell Touch.	Marginally supported

RQ 2- How do users feel about the app?

Overall users are very satisfied with the app.

RQ3 – What are the issues that issues users are encountering with the app?

Users indicated some challenges with the app that provide an opportunity for the developers to expand on or improve the app. These issues do not appear to have diminished the usefulness of the app to users.

DISCUSSION

This project sought to pilot an evaluation of Tell Touch as an IT communication platform for feedback and handling complaints in aged care. This project was expanded by incorporating an

'   x

Tell Touch.

Feedback and complaints are considered one of the most effective ways to assess the quality of care provided, and thereby identify substandard care among residential ACHs (RCACQ&S, 2021b). Current collection feedback systems are predominantly paper-based systems. They have been identified as unsuccessful in measuring quality or identifying substandard care,

potentially increasing the substandard care between residents and care providers (RCACQ&S, 2021a).

As part of this evaluation a literature review on digital feedback tools in health care sector was undertaken. The TAM model was identified as a valid tool to guide the exploration of care staff perceptions regarding the usefulness and effectiveness of IT interventions in improving care management. The piloted research design and process did not identify any challenges with the research tool or method adopted. Therefore, we suggest a full evaluation of Tell Touch could be conducted using the research design in this pilot in order to gain a rigorous insight into the behavioural intention to use Tell Touch. Based on the sample in this pilot we found overall that staff perceived Tell Touch as an effective feedback and complaints app.

With respect to the data gathered for this pilot, we present the following discussion.

Tell Touch is effective

The quantitative and qualitative findings confirmed Tell Touch's high acceptability and usefulness in managing feedback and improving care delivery. Findings from these datasets also revealed care staff satisfaction with using data collected via Tell Touch to improve care services to residents and meet accreditation requirements in ACHs.

This study confirms that the real-time approach of Tell Touch in collecting resident feedback potentially increases the quality of care provided by aged care providers. This is consistent with the literature that finds real-time feedback will be transformed into practice, thus enhancing individualised care delivery to support the highly complex care needs (Graham et al., 2018). The data elicited from the Tell Touch feedback system also benefits aged care providers by complying with ACQ&SC 6.

Tell Touch is useful

The capacity for a digital health intervention to improve the quality of care delivery is considered an important factor in evaluating the effectiveness of such interventions (Murray et al., 2016). As recognised in previous studies, feedback and complaints from service users are important indicators of the presence of quality healthcare (Khanbhai et al., 2019). In aged care, harnessing the perspectives of aged care residents has driven quality improvements in ACHs (Gilbert et al., 2021). The responsiveness of care providers to resident ' feedback and their efforts in recognising and transforming their services towards patient-centred care indicates the quality of care from the perspective of residents (Gilbert et al., 2021). Findings from this study confirm that data gathered from residents through Tell Touch enabled care staff to improve daily care practices, practice listening and acknowledging residents'   , design care plans and enhance relationships between staff and residents and their families.

In ACHs care staff spend at least two hours per shift accompanying and assisting elderly adults in managing their daily life, preparing food, and supporting them with outdoor activities (Brimelow et al., 2019). In long-term care facilities, the work burden of care staff is even higher due to the higher care needs and more complex care services provided for elders with cognitive and/or physical impairments (Gibson, 2020). Therefore, digital feedback technology can benefit caregivers by allowing them to better understand the needs and preferences of vulnerable groups, which is the central value of patient-centred care (Wilson et al., 2020).

Regarding the daily care practices, care staff reported that Tell Touch could help support individualised care services to residents on daily issues such as meals, outdoor activities, administration of medication T T ’ uilt-in notifications, and note-taking functions helped by generating resident ’ data trends, categorising and prioritising urgent incidents and identifying cases for follow up. Thus, the Tell Touch app provides a mechanism by which care providers can improve service quality and provide better person-centred care by clearly understanding the needs of residents through feedback (Goh et al., 2017; Hill, 2017; Waycott et al., 2022).

Tell Touch fosters incorporation of feedback into practice; this benefit was identified as an important and successful feature of the app. Using feedback data to transform care practices has been identified by existing studies as an enabler for successful app implementation. Dow et al. (2017) revealed that feedback data was ignored or left out of date due to the limited processing capacity of care organisations. In research on the effectiveness of the mobile app ThoughtCloud, Dow found that despite some staff going to great lengths to collect feedback that feedback in many instances was not reviewed, not responded to, or not used in any way. Whether feedback technology is available in aged care facilities or not, the most important feature is the ability to respond to this feedback and transform it into action (Abujarad et al., 2021; Dow et al., 2017; Ong et al., 2020). Users indicated that Tell Touch provides useful functions for responding to feedback quickly, thus enabling ACHs to quickly transform their feedback into practice. Qualitative findings indicated that the Tell Touch features such as notification, email, and note-taking tools keep caregivers in a feedback loop, enabling staff to monitor, overview and respond to feedback promptly.

T T ’
and their families was rated as moderate. One interviewee supported this quantitative finding saying that Tell Touch had no built-in multi-media functions such as video calling, which might help them communicate better with residents. Text, images, speech, and video functions have been identified as useful multi-communication functions that enriched the experience of service users by offering them a range of choices to communicating their preferences and needs, thus enhancing understanding between them and carers (Abujarad et al., 2021; Miatello et al., 2018; Wilson et al., 2020). For carers, multi-media functions of an app not only provide them with a range of resident information resources for delivering individual support, but also facilitate communication with service providers in multi-cultural language care settings (Brimelow et al., 2019; Wilson et al., 2020).

Brimelow et al. (2019) found that clear summarised information and illustrations representing aids and tools necessary for individual residents were found helpful in increasing “ ”
Wilson et al. (2020) also emphasised the importance of multi-media communication modes, such as on-demand translation tools in addressing language barriers between carers and residents during daily care routines. In aged care, a nurturing resident-care staff relationship reflects quality indicators of a respectful and dignity care service (Wilson et al., 2020). However, building such relationships requires time, skill and effort from carers and residents, which could be challenging in the high-pressure working environment due to time pressure, limited skills and training (Austen & Hutchinson, 2021). Therefore, a communication function within an app used in ACHs could support the shift of the resident-care staff relationship from task-oriented care towards relationship-oriented care (Wilson et al., 2020).

Findings also show that Tell Touch did help staff enhance their ability to listen to and welcome feedback from residents. This suggested Tell Touch facilitated positive changes in staff attitudes. The readiness of care staff and providers to accept both positive and negative comments from residents was seen as a positive change in behaviour. Findings from past studies supported these findings. O'Neill et al. (2018) reported that children changed their attitude towards nurses and doctors in hospitals based on how their feedback was received. Therefore, it is likely that ACHs that implement Tell Touch will experience a similar shift towards positive changes in the attitude of staff because of the feedback mechanism that enables them to   ' feedback in a positive and friendly manner.

Improving job efficiency is evidence of the effectiveness of digital interventions (Murray et al., 2016). A systematic review by Bail, Gibson, Acharya, et al. (2022) evaluated the effectiveness of health information technology in aged care settings through aspects such as time and cost-saving, increasing productivity, increasing job performance, and improving effectiveness and usefulness at work. This project cannot support findings related to job efficiency as examined in previous studies, a finding also reported in research related to digital systems in aged care (Krick et al., 2019).

Qualitative findings from this study reflect that care staff did experience improved job efficiency. Tell Touch helps save time, reduce missing feedback, improve decision-making, and make allocating work in the care team easier. One of the prominent findings from this   " -   " R   ' information when needed, cutting time on allocating tasks and increasing smooth workflow in addressing feedback were reported by Tell Touch users. Compared with paper-based systems, Tell Touch allows staff to save time on quickly collecting feedback and responding to it, thus enabling them to allocate more time to patient care. This is consistent with another study that showed that when paper-based surveys were integrated into mobile apps or iPads, it was easier for residents or their families to give feedback and reduced duplication of data entry (O'Neill et al., 2018).

Recent updates to the Aged Care Quality Standards (to be enacted from 1 October 2023) will require the allocation on average of 200 minutes of staff time to care tasks, including 40 minutes of care provided by registered nurses in residential care homes. Given the findings emerging from this evaluation regarding time-saving, Tell Touch could potentially save ACH staff time on data documentation and administration required by this new update. By saving time in one area, employees have more capacity to focus on other important tasks, or reduce feelings of work pressure, and improve work efficiency.

Another finding is that Tell Touch reduces the possibility of missed, overlooked or delayed feedback. In healthcare, missing resident or patient information is referred to as "   " and defi   "   "
p. 383). Missed basic care, missed communication and lack of timeliness are associated with decreased patient care quality. With Tell Touch users, the app allows staff to access resident information quickly and thoroughly, thus letting staff generate and assign tasks from the feedback data T   T   '   was found to help staff keep track of the feedback loop between themselves and residents. This allows staff to address the residents' needs in a timely way and quickly respond to any incidents that might affect resident safety. Other studies show that not missing information from residents ensures better patient safety (Bail, Gibson, Hind, et al., 2022; O'Neill et al., 2018). Thus, we envisage that adoption of the Tell Touch app could lead to improved patient safety.

Tell Touch's ability to assign tasks in a care team to staff also enhances decision-making. Respondents indicated Tell Touch helped them decide who should be responsible for handling each feedback. Tell Touch was perceived to provide functions that generate, store and extract resident feedback data for it is convenient for data retrieval. Thus, staff decision-making processes were formed more quickly based on data they extracted, addressing concerns related to ineffective care cooperation in managing information (Brimelow et al., 2019) and perceived roles and responsibilities (Ong et al., 2020).

In short, the usefulness of Tell touch was reflected in the increased care delivery and job efficiency experienced by staff. Care staff found Tell Touch helpful in supporting them to provide a better service to residents, which helped improve their work attitude.

Tell Touch meets accreditation requirements

This section discusses the potential of Tell Touch potential to address ACQ&SC Standard 6, which requires an aged care provider to have a system to handle complaints and feedback. ACQ&SC Standard 6 specifies an organisation have an accessible, confidential, prompt and fair system to handle complaints. Four requirements under this standard include: encouraging residents, families and carers to provide feedback and complaints (ACQ&SC Standard 6a), ensuring residents of any culture, language, and ability easily make a complaint (ACQ&SC Standard 6b), taking appropriate action to handle complaints (ACQ&SC Standard 6c) and feedback used for continuous improvement of aged care quality and services (ACQ&SC Standard 6d).

The purpose of the Tell Touch app is   '

                                            '   T   T   , 2021), thereby helping ACHs improve the quality of care they provide. Tell Touch founders believe it is a solution that can ensure the complaint and responsive processes of ACHs complying with or exceeding ACQ&SCS Standard 6. Findings from this study confirm that Tell Touch appears to satisfy the key requirements of Standard 6 by developing streamlined feedback system that collects data from residents or family members/caregivers in an accessible and prompt manner. However, T   T   '   the confidentiality of data requirements within Standard 6 was not captured in the data collected for this evaluation.

Care staff interviewed noted the features of Tell Touch that facilitated data aggregation, and report generation for the purposes of accreditation. Thus, Tell Touch has satisfied these needs of ACHs. Tell Touch is perceived as simple, accessible, with features tailor-made for the elderly and includes multi-languages to support carers and residents from multi-culture backgrounds. The problem of language challenges in collecting feedback from people is addressed in Tell Touch with its 80 language functions which staff found effective. As Australia is a multi-cultural country with 37% of Australians aged 65 and over born overseas, of whom 20% were born in non-English speaking countries and 18% spoke a language other than English at home (AHIW, 2021). Therefore, this evaluation supports the argument that multi-language function is an essential element for feedback technologies, supporting the findings of Wilson et al. (2020) who suggest that mobile apps include translation functions to better support aged care workers working in a multicultural environment. Overall, Tell Touch
                              6   "
                              "   ACQ&SC Standard 6c, p.139).

Regarding handling complaints, Standard 6d requires: "A

” ACQ&S
Standard 6c, p.144). Findings from this research show that timely and rapidly updated feedback data from Tell Touch has assisted the care staff in identifying negative complaints from residents, allowing staff to intervene appropriately, thus stopping problems or complaints before they escalate. Staff indicated they felt supported in that negative feedback could be captured and handled promptly before an incident escalates.

Using the collected data to improve service quality is one of the requirements for ACHs in
6   A   ACH   "F
used to imp   q   ” ACQ&   6   ) Staff believe
Tell Touch played an important role in supporting staff in the formulation of care plans and in delivering daily care activities to residents. Tell Touch functions summarised data trends allowing staff to categorise and prioritise care tasks. Thus, Tell Touch is a solution that allows ACHs to meet the ACQ&SCS requirement of using feedback data to plan for continuous improvement. Respondents indicated that Tell Touch helped them clearly outline: issues encountered, the action plan to address the issue, the person in charge, and the completion date. The results reporting function that supported this process was identified as useful to ACH staff.

Challenges with Tell Touch

Staff did report that residents who were elderly or had cognitive problems had difficulty using Tell Touch which is consistent with findings in the literature (Bajenaru et al., 2022; Dow et al., 2016; Dow et al., 2017). Only one study of Abujarad et al. (2021) indicated the technology investigated was accepted by the elderly and could be used by many different groups. Cognitive barriers of the elderly and disabled lead to these people being dependent on family members or caregivers to provide feedback on their behalf (Dow et al., 2016; Dow et al., 2017; O'Neill et al., 2018). Results from this evaluation support those findings with some residents needing help from families or carers to respond to the survey embedded in the app.

However, there is research that showed older adults can successfully self-monitor their (mis-treatment via an app. Furthermore, a range of methods for collecting feedback can help residents give feedback more effectively and address some physical and sensitivity barriers for particular groups such as the elderly, vision impaired, and other disability groups (Dow et al., 2016; Dow et al., 2017; Miatello et al., 2018; Ong et al., 2020; Wilson et al., 2020). Tell Touch could consider moving from one form of feedback to a multi communication feedback mode, thus increasing the opportunity for all residents to give feedback.

CONCLUSION

This pilot evaluation project adapted key hypothesis from the TAM about the successful adoption of health IT, and explored three research questions. It further examined perceptions
    ACH   ,   for
the purpose of improving the delivery of care in ACHs. Overall, we conclude that the TAM supported by open-ended interview questions will provide an effective method of evaluation for Tell Touch.

Furthermore, the data collected for this pilot evaluation indicates users perceive Tell Touch to be an effective IT communication platform for complaints and feedback handling in ACHs.

Staff who participated in this project were very satisfied with using the app for complaints and feedback handling, and provided some suggestions for improvement of the app. However, these findings are limited due to the small sample size. Nonetheless, information power may

x   T   "

                                                    "   M   6
p. 1753). Despite the small sample size, the participants in this research comprised a diversified group of Tell Touch users including top managers, therapists, nursing staff and administrative staff. Their experience in aged care homes and with using Tell Touch has provided insightful perspectives into the effectiveness of Tell Touch. This suggests the information collected maybe powerful enough to indicate what works well, and what could be improved, with the Tell Touch app at this early point in its development and implementation journey.

The results of this project are not generalisable to other contexts; however our findings do make a contribution to what is known about digital feedback and complaints apps in ACH settings. Furthermore, our findings suggest that utilising the real-time data gathered from feedback apps could contribute to transforming the aged care service delivery model making it more accountable, patient-centred and compliant with government legislation. The findings from this study may benefit other care organisations considering the adoption of Tell Touch.

REFERENCES

Abujarad, F., Ulrich, D., Edwards, C., Choo, E., Pantalon, M. V., Jubanyik, K., Dziura, J., D'Onofrio, G., & Gill, T. M. (2021). Development and usability evaluation of VOICES: A digital health tool to identify elder mistreatment. *Journal of the American Geriatrics Society*, *69*(6), 1469-1478. https://doi.org/10.1111/jgs.17068

Aged Care Quality and Safety Commission. (2021). *Aged Care Quality Standard, Guidance and resources, standard 6*. Retrieved from https://www.agedcarequality.gov.au/resources/aged-care-reforms-overview-fact-sheet

Aged Care Quality and Safety Commission. (2021). *Aged Care Quality Standard 2021*. Retrieved from https://www.agedcarequality.gov.au/resources/aged-care-reforms-overview-fact-sheet

Aged Care Quality and Safety Commission. (2022). *Aged care reforms: an overview*. Retrieved from

Armstrong, P. (2018). Balancing the tension in long-term residential care. *Ageing International*, *43*(1), 74–90. https://doi.org/10.1007/s12126-017-9284-8

Austen, K., & Hutchinson, M. (2021). An aged life has less value: A qualitative analysis of moral disengagement and care failures evident in Royal Commission oral testimony. *Journal of Clinical Nursing*, *30*(23-24), 3563-3576. https://doi.org/10.1111/jocn.15864

Australian Institute of Health and Welfare. (2022). *Admissions into aged care*. Retrieved from https://www.gen-agedcaredata.gov.au/Topics/Admissions-into-aged-care

Bail, K., Gibson, D., Acharya, P., Blackburn, J., Kaak, V., Kozlovskaia, M., Turner, M., & Redley, B. (2022). Using health information technology in residential aged care homes: An integrative review to identify service and quality outcomes. *International Journal of Medical Informatics*, *165*. https://doi.org/10.1016/j.ijmedinf.2022.104824

B K   D H   A   K P   C M   E   J K z   M O'D   A   B & R   B   ) 'I   ': Q   tion of point-of-care digital management system in residential aged care. *Journal of Clinical Nursing*. https://doi.org/10.1111/jocn.16285

Bajenaru, L., Marinescu, I. A., Tomescu, M., & Draghici, R. (2022). Assessing elderly satisfaction in using smart assisted living technologies: vincy case study. *Romanian Journal of Information Technology and Automatic Control-Revista Romana De Informatica Si Automatica*, *32*(1), 19-32. https://doi.org/10.33436/v32i1y202202

Barnett-Page, E., & Thomas, J. (2009). Methods for the synthesis of qualitative research: a critical review. *BMC Medical Research Methodology*, *9*(1), 59. https://doi.org/10.1186/1471-2288-9-59

Braun, V., & Clarke, V. (2012). Thematic analysis. In (pp. 57-71). American Psychological Association. https://doi.org/10.1037/13620-004

Brimelow, R. E., Gibney, A., Meakin, S., & Wollin, J. A. (2019). Accessing care summaries at point-of-care: Implementation of mobile devices for personal carers in aged care. *Health Informatics Journal*, *25*(1), 126-138. https://doi.org/10.1177/1460458217704251

Brinkmann, S. (2013). *Qualitative interviewing*. Oxford University Press.

Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press.

Creswell, J. W. (2013). *Qualitative inquiry and research design: choosing among five approaches* (3rd ed.). SAGE Publications.

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.

Darbyshire, P., & Dwyer, D. (2021). Monetising your mum: The industrification of aged care. *Journal of clinical nursing*, *30*(5-6), e16-e20. https://doi.org/10.1111/jocn.15525

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, *35*(8), 982-1003. https://doi.org/10.1287/mnsc.35.8.982

DeJonckheere, M., & Vaughn, L. M. (2019). Semistructured interviewing in primary care research: A balance of relationship and rigour. *Family Medicine and Community Health*, *7*(2). https://doi.org/10.1136/fmch-2018-000057

Dow, A., Vines, J., Comber, R., & Wilson, R. (2016). Thoughtcloud: Exploring the role of feedback technologies in care organisations.

Dow, A., Vines, J., Lowe, T., Comber, R., & Wilson, R. (2017). What happens to digital feedback?: studying the use of a feedback capture platform by care organisations.

Dowding, D. (2013). Best practices for mixed methods research in the health sciences. *SAGE Journals*, *12*(4), 541-545. https://doi.org/10.1287/mnsc.35.8.982

Eagar, K., Westera, A., & Kobel, C. (2020). Australian residential aged care is understaffed. *Medical journal of Australia*, *212*(11), 507-508. https://doi.org/10.5694/mja2.50615

Evans, J. R., & Mathur, A. (2005). The value of online surveys. *Internet Research*, *15*(2), 195-219. https://doi.org/10.1108/10662240510590360

Gale, N. K., Heath, G., Cameron, E., Rashid, S., & Redwood, S. (2013). Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Medical Research Methodology*, *13*(1), 117. https://doi.org/10.1186/1471-2288-13-117

Gibson, D. (2020). Corrigendum to: Who uses residential aged care now, how has it changed and what does it mean for the future? *Australian Health Review*, *44*(6), 983. https://doi.org/10.1071/AH20040_CO

A   M K   z L O z   z J & D   B   ) A   '
perspectives on quality of care in care homes: a systematic review of qualitative evidence. *Research on Aging*, *43*(7-8), 294-310. https://doi.org/10.1177/0164027521989074

Given, L. M. (2008). *The SAGE Encyclopedia of Qualitative Research Methods*. SAGE Publications.

Goh, A. M. Y., Loi, S. M., Westphal, A., & Lautenschlager, N. T. (2017). Person-centered care and engagement via technology of residents with dementia in aged care facilities. *International Psychogeriatrics*, *29*(12), 2099-2103. https://doi.org/10.1017/S1041610217001375

Gustafsson, N., Leino-Kilpi, H., Prga, I., Suhonen, R., & Stolt, M. (2020). Missed care from the patient's perspective - a scoping review. *Patient Preference and Adherence*, *14*, 383-400. https://doi.org/10.2147/PPA.S238024

Hill, N. L. (2017). Person-centered technology for older adults. *Journal of Gerontological Nursing*, *43*(4), 3-4. https://doi.org/10.3928/00989134-20170313-01

Holden, R. J., & Karsh, B.-T. (2010). The Technology Acceptance Model: Its past and its future in health care. *Journal of Biomedical Informatics*, *43*(1), 159-172. https://doi.org/10.1016/j.jbi.2009.07.002

Holden, R. J., Asan, O., Wozniak, E. M., Flynn, K. E., & Scanlon, M. C. (2016). Nurses' perceptions, acceptance, and use of a novel in-room pediatric ICU technology: testing an expanded technology acceptance model. *BMC Medical Informatics and Decision Making*, *16*(1), 145-145. https://doi.org/10.1186/s12911-016-0388-y

Holden, R. J., Brown, R. L., Scanlon, M. C., & Karsh, B.-T. (2012). Modeling nurses' acceptance of bar-coded medication administration technology at a pediatric hospital. *Journal of the American Medical Informatics Association: JAMIA*, *19*(6), 1050-1058. https://doi.org/10.1136/amiajnl-2011-000754

Hong, S., Thong, J. Y. L., & Tam, K. Y. (2006). Understanding continued information technology usage behavior: A comparison of three models in the context of mobile internet. *Decision Support Systems*, *42*(3), 1819-1834. https://doi.org/10.1016/j.dss.2006.03.009

Ilieva, J., Baron, S., & Healey, N. M. (2002). Online surveys in marketing research: pros and cons. *International Journal of Market Research*, *44*(3), 361.

Khanbhai, M., Flott, K., Darzi, A., & Mayer, E. (2019). Evaluating digital maturity and patient acceptability of real-time patient experience feedback systems: Systematic review. *Journal of Medical Internet Research*, *21*(1). https://doi.org/10.2196/jmir.9076

Krick, T., Huter, K., Domhoff, D., Schmidt, A., Rothgang, H., & Wolf-Ostermann, K. (2019). Digital technology and nursing care: a scoping review on acceptance, effectiveness and efficiency studies of informal and formal care technologies. *BMC Health Services Research*, *19*(1), 400. https://doi.org/10.1186/s12913-019-4238-3

Lee, Y., Kozar, K. A., & Larsen, K. R. T. (2003). The Technology Acceptance Model: Past, present, and future. *Communications of the Association for Information Systems*, *12*, 50. https://doi.org/10.17705/1CAIS.01250

Malterud, K., Siersma, V. D., & Guassora, A. D. (2016). Sample size in qualitative interview studies: guided by information power. *Qualitative Health Research*, *26*(13), 1753-1760. https://doi.org/10.1177/1049732315617444

McMillan, J., & Sheehan, M. (2005). Commentary: Ethical review and ethical behaviour. *British Medical Journal (International ed.)*, *330*(7489), 473.

Miatello, A., Mulvale, G., Hackett, C., Mulvale, A., Kutty, A., & Alshazly, F. (2018). Data elicited through apps for health systems improvement: Lessons from using the myexp suite of smartphone and web apps. *International Journal of Qualitative Methods*, *17*(1). https://doi.org/10.1177/1609406918798433

Murray, E., Hekler, E. B., Andersson, G., Collins, L. M., Doherty, A., Hollis, C., Rivera, D. E., West, R., & Wyatt, J. C. (2016). Evaluating digital health interventions: key questions and approaches. *American Journal of Preventive Medicine*, *51*(5), 843-851. https://doi.org/10.1016/j.amepre.2016.06.008

O'Neill, J., Reeks, G. R., & Kearney, L. (2018). Can an interactive application be used to collect meaningful feedback from paediatric patients and their parents in a hospital setting? *Patient Experience Journal*, *5*(2), 69-75. https://doi.org/10.35680/2372-0247.1290

Ong, B. N., & Sanders, C. (2021). Exploring engagement with digital screens for collecting patient feedback in clinical waiting rooms: The role of touch and place. *Health*, *25*(4), 454-474. https://doi.org/10.1177/1363459319889097

Ong, B. N., Hodgson, D., Small, N., Nahar, P., & Sanders, C. (2020). Implementing a digital patient feedback system: an analysis using normalisation process theory. *BMC Health Services Research*, *20*(1), 387-387. https://doi.org/10.1186/s12913-020-05234-1

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). SAGE Publications.

Rahimi, B., Nadri, H., Lotfnezhad Afshar, H., & Timpka, T. (2018). A systematic review of the technology acceptance model in health informatics. *Applied Clinical Informatics*, *9*(3), 604-634. https://doi.org/10.1055/s-0038-1668091

Rogers, E. M. (2003). *Diffusion of Innovations* (5th ed.). Free Press.

Royal Commission into Aged Care Quality and Safety. (2021a). *Final report: - Volume 1 Care, dignity and respect*. Retrieved from https://agedcare.royalcommission.gov.au/sites/default/files/2021-03/final-report-volume-1_0.pdf

Royal Commission into Aged Care Quality and Safety. (2021b). *Final report - Volume 2: The current system.* Retrieved from https://agedcare.royalcommission.gov.au/sites/default/files/2021-03/final-report-volume-2_0.pdf

, J. (2011). *Fundamentals of qualitative research*. Oxford University Press.

, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). SAGE Publications.

Saunders, M. N. K., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.). Pearson.

Schonlau, M., Fricker, R. D., & Elliott, M. N. (2002). *Conducting research surveys via e-mail and the web*. RAND.

Sullivan, G. M., & Artino, J. A. R. (2013). Analyzing and interpreting data from likert-type scales. *Journal of Graduate Medical Education*, *5*(4), 541-542. https://doi.org/10.4300/JGME-5-4-18

Taherdoost, H. (2019). What is the best response scale for survey and questionnaire design; Review of different lengths of rating scale / attitude scale / likert scale. *International Journal of Academic Research in Management*, *8*(1), 1-12.

Tell Touch. (2022). Tell Touch solutions. Retrieved from https://telltouch.com/solutions/residential

Thomas, E., & Magilvy, J. K. (2011). Qualitative rigor or research validity in qualitative research. *Journal for Secialists in Pediatric Nursing*, *16*(2), 151-155. https://doi.org/10.1111/j.1744-6155.2011.00283.x

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS quarterly*, *27*(3), 425-478. https://doi.org/10.2307/30036540

Waycott, J., Zhao, W., Kelly, R. M., & Robertson, E. (2022). Technology-mediated enrichment in aged care: survey and interview study. *JMIR Aging*, *5*(2), e31162. https://doi.org/10.2196/31162

Wilson, A., & Laskey, N. (2003). Internet based marketing research: a serious alternative to traditional research methods? *Marketing Intelligence & Planning*, *21*(2), 79-84. https://doi.org/10.1108/02634500310465380

Wilson, R., Cochrane, D., Mihailidis, A., & Small, J. (2020). Mobile apps to support caregiver-resident communication in long-term care: Systematic search and content analysis. *JMIR Aging*, *3*(1). https://doi.org/10.2196/17136

Appendix A
Provided communiqué from Executive Management to ACH staff

As a user of the Tell Touch system, we have been invited to participate in a research project that examines the effectiveness of Tell Touch digital tool as a communication platform for complaints and feedback.

The aim of this research is to understand the extent to which you find Tell Touch to be a useful digital technology for handling complaints and feedback in this facility.

The research will comprise of an anonymous survey and, if you are willing, an interview with a researcher. If you complete the anonymous survey you can enter a random draw to win a $25 Wish Gift E-card.

The survey will take approximately 15 minutes to complete, the interview will last for approximately 45 minutes.

[Name of ACH] want to reassure you that your participation in this research is entirely voluntary. You do not need to participate, and you may withdraw from participation if you change your mind later. There will be no penalty to you if you do not participate, or if you later withdraw from the research. You will not need to explain why you do not wish to participate, or why you wish to withdraw from the research after it commences. [Name of ACH] will not know if you did or did not participate in the research.

Appendix B

Survey

This anonymous survey asks you for your experience of using Tell Touch in the Aged Care Home (ACH) in which you work.

You are being asked to indicate the extent to which you agree with the question by selecting the box that most closely resembles your opinion.

The answers range from a low level of agreement with the question (ie not at all) to a high level of agreement with the question (ie a great deal).

TASK: *Thinking about your use of Tell Touch, rank your response to each question where 1 is the lowest, 4 is the middle, and 7 the highest.*

Items	Not at all 1	A little 2	Somew hat 3	A moderate amount 4	Pretty much 5	Quite a lot 6	A great deal 7	Not Applicable
To what extent is Tell Touch clear and understandable?								
To what extent do you find Tell Touch to be easy to use?								
To what extent does interacting with Tell Touch require a lot of your mental effort?								
To what extent do you find it easy to get Tell Touch to do what you want it to do?								
To what extent has it been easy to learn to use Tell Touch?								
To what extent is it easy to navigate or get from place to place in Tell Touch?								
To what extent does using Tell Touch in your job increase your productivity?								
To what extent does using Tell Touch improve your performance in your job?								
To what extent does using Tell Touch enhance your effectiveness on the job?								
To what extent do you find Tell Touch to be useful in your job?								
To what extent has using Tell Touch improved your interaction with residents/family?								
To what extent has using Tell Touch improved your ability to share resident information with family members?								
To what extent has using Tell Touch improved your ability to communicate with families?								
To what extent does Tell Touch improve family engagement in ' ?								

To what extent is Tell Touch culturally inclusive of residents and family members?								
To what extent has using Tell Touch improved your ability to address individual resident needs?								
To what extent has using Tell Touch improved you ability to customise service delivery for individual residents?								
To what extent has using Tell Touch improved your ability to share information provided by the resident with others on the care team on rounds?								
To what extent has using Tell Touch improved your ability to , a timely manner?								
To what extent does your ACH think that you should use Tell Touch?								
To what extent do your supervisors or managers think that you should use Tell Touch?								
To what extent do your care team colleagues think that you should use Tell Touch?								
To what extent do your residents (or their families) like that you use Tell Touch?								
To what extent did you receive adequate training on using Tell Touch?								
How clear was the training you received on using Tell Touch?								
To what extent are you satisfied with Tell Touch?								
To what extent would you recommend the Tell Touch to a colleague at another ACH?								
Assuming you continue to have access to Tell Touch, to what extent do you intend to use it in the next 6 months?								
How much do you want to use Tell Touch?								
To what extent do you use all of the available features in Tell Touch?								
How much do you find yourself skipping or ignoring some part of Tell Touch?								

Part B: This section collects demographic information about you and the ACH in which you work.

Please answer each of the following by writing your response, or indicating the best option with a tick or circle.

1. What title is given to your role in the ACH that employs you?

   _____

2. What purpose do you use Tell Touch for in your work?

   _____

3. Which of the following do you prefer for gender:
   Female, male, other (_____), prefer not to answer

4. Which age group do you fit into?
   - o 18-20
   - o 21-30
   - o 31-40
   - o 41-50
   - o 51-60
   - o 61-70
   - o 71+
5. How many years have you worked in Aged Care Homes?   _____
6. Is English your first language? Yes/No
7. If no, please specify your first language.   _____
8. How many years have you lived in Australia?
   - o Less than 1 year
   - o 1 to 3 years
   - o 4 to 10 years
   - o More than 10 years
9. Which is your ethnicity? Australian, other:_____
10.

Thinking about the Aged Care Home you are working in, select the most correct answer, or write the answer in the space provided:

11. This ACH is: privately owned, community owned, Church owned, charitable home, State Government home, other: _____
12. This ACH is located in the central business district, suburbs, country region, other: _____ _____.
13. The residents of this ACH are mainly from the following ethnic groups (circle all that apply): Australian, Greek, Italian, Dutch, German, Polish, Maltese, Serbian, Macedonian, Croatian, other:_____
14. This ACH has _____number of beds

THANK YOU!

Appendix C

Project Consent Information Statement – Random Survey

Project: Tell Touch - Evaluation of a Digital Health Intervention

Investigators

Chief Investigator: Dr Rosemary Fisher – Swinburne University of Technology
Co-Investigators:

      Dr Tanya Linden, University of Melbourne

      Dr T. Leroy Machirori, Swinburne University of Technology

      Mr Antony Linden, Swinburne University of Technology

Introduction to Project and Invitation to Participate

You are invited to participate in a research project that evaluates the efficacy of Tell Touch, a digital platform for the collection of complaints and feedback from residents of Aged Care Homes (ACH).

You are being invited to participate because in role/employment you have used the Tell Touch system in some way and therefore have experience in using Tell Touch.

What this project is about and why it is being undertaken

This project seeks to conduct an evaluation of the efficacy of Tell Touch. The founders of Tell Touch believe they

ACH'   q

of care they provide to residents, as well as assist the ACH in complying with Aged Care industry standards.

Effective collection of complaints and feedback from ACH residents has been identified as critical to the provision of best practice care by ACH staff and management. Therefore understanding the efficacy of a digital tool designed to improve this process is critical.

Funding for this project comes from Swinburne University of Technology and Tell Touch.

Project and researcher interests

The researchers will use the results of the study to produce peer reviewed journal publications in the discipline fields of Entrepreneurship & Innovation, and Information Systems.

The research data will not identify any individual research participant, resident or ACH, and therefore this information will not be identifiable in any published outcomes from this research.

The founders of Tell Touch have sought this research. Therefore, we will provide them with a report that evaluates and concludes the efficacy of Tell Touch for its purpose, without providing them or any ACH management with any information about who participated in this research. No names of participants or of ACHs will be used in any report or publication arising from this project. Pseudonyms will be used.
What participation will involve

To participate in this project, you will be asked to complete a survey (approximately 15 minutes) and a 45-minute audio recorded interview (optional). The survey will be completed on-line. The interview will be completed face to face at a location of your choosing, or online, whichever you prefer, and subject to any public health regulations in place at the time of the interview, in the context of COVID-19.

Participants in this project can:

- Choose to enter a random draw to win a $25 Wish Gift E-Cards redeemable at any Woolworths or partner store
- Receive a $25 Wish Gift E-Cards if they participate in the voluntary 45-minute interview.

Participant rights and interests

No risks of participating in this project are anticipated for you. Your involvement will be limited to the amount of time you spend completing the survey and/or participating in the interview, which may inconvenience you.

If you choose not to consent to participate in the project, there will be no consequences or penalties for you. No one will be informed as to whether or not you have participated. If you do consent to participate, you have the right of withdrawal at any time without any consequences or penalties. If you withdraw after you have completed and submitted the survey, it will not be possible to identify your data to remove it, as all surveys are anonymous. If you withdraw after participating in an interview, your data can be withdrawn at any time up to the point when the interview data has been analysed and submitted for publication.

Furthermore, participation in this research will be cognizant of religious observances or cultural practices and flexible in regards to time commitment.

Benefits of participation for you include that you may:

- enjoy participating in a research project that aims to address a nationally significant problem for Australia, that of increasing the quality of care in ACH and therefore the quality of life for ACH residents;
- be interested to contribute to the improvement of Tell Touch through sharing your experiences and observations;
- benefit because you will know if you have access to an effective tool that enables you to identify and then act on the complaints and feedback of your residents and target your attention to matters important to the quality of care the ACH is providing.

Participant rights and interests – Free Consent/Withdrawal from Participation

Participation is voluntary and you may withdraw at any time without explanation or penalties. There will be no effects to you (personal or workplace related) by either participating in or withdrawing from this project.
Participant rights and interests – Privacy & Confidentiality

Your data will be securely managed at Swinburne University of Technology via encrypted password protected files stored on a secure server, and secure lockable cabinets in a locked office. It will be retained for a period of 5 years after any publications/published outcome then securely destroyed.

Access to your data will only be available to the research team named at the top of this consent form. Any researcher engaged in this project who has a perceived or actual relationship with you, or any of the ACH management, will be excluded from accessing any identifiable data. Data collected will not be reused in future projects, or made available for use by other researchers in future projects. Raw data will not be provided to

your employer or to Tell Touch, thus your comments cannot be identified by either your employer or Tell Touch.

Research output

Aggregated data will be used for analysis and individuals will not be identifiable. Aggregated data provides an overview of what everyone said about Tell Touch, it does not show what individuals said about Tell Touch. The aggregated data will be used to write a professional report, journal publications, and conference presentations. The aggregated data may also be used for the purposes of further developing a commercial product (Tell Touch) that seeks to positively influence the collection of complaint and feedback from ACH residents. Additionally, the results may be used in applications for future research grants. Publications and a final report will be made available to project participants via their ACH communication channels; we stress any publications or reports will not identify individual participants.
Further information about the project

If you would like further information about the project, please do not hesitate to contact:

Dr Rosemary Fisher, Swinburne University of Technology, 03 9214 5479, rlfisher@swin.edu.au

Concerns/complaints about the project – who to contact:

This project has been approved by o   ' H   R   E   C
(SUHREC) in line with the *National Statement on Ethical Conduct in Human Research*. If you have any concerns or complaints about the conduct of this project, you can contact:

Research Ethics Officer, Swinburne Research (H68),
Swinburne University of Technology, P O Box 218, HAWTHORN VIC 3122 Australia.
Tel (03) 9214 3845 or +61 3 9214 3845 or resethics@swin.edu.au

Appendix C

Consent Form

Project: Tell Touch - Evaluation of a Digital Health Intervention

Principal Investigator: Dr Rosemary Fisher

1. I consent to participate in the project named above. I have been provided a copy of the project consent information statement to which this consent form relates and any questions I have asked have been answered to my satisfaction.

2. ***In relation to this project, please circle your response to the following as applicable:***

   ▪ I agree to be complete a survey   **Yes**   **No**

   ▪ I agree to be interviewed by the researcher   **Yes**   **No**

   If you ***agree to the interview***, please give your name, and contact email or phone number here:

   _____

   ▪ I agree to allow the interview to be audio and/or video recorded by electronic device **Yes**   **No**

3. I acknowledge that:

   (a) my participation is voluntary and that I am free to withdraw from the project at any time without explanation;
   (b) once I submit the survey I know my data cannot be withdraw from the project as all surveys are anonymous
   (c) the Swinburne project is for the purpose of research and not for profit;
   (d) any identifiable information about me which is gathered in the course of and as the result of my participating in this project will be (i) collected and retained for the purpose of this project and (ii) accessed and analysed by the researcher(s) for the purpose of conducting this project. Such information will not be provided to anyone outside of the research team in any form;
   (e) I understand the length of time researcher/s will have access to this information;
   (f) my anonymity is preserved and I will not be identified in publications or otherwise without my express written consent.

By signing this document, I agree to participate in this project.

Name of Participant: …………………………………………………………………………

Signature & Date: …………………………………………………………………

Interview Schedule

- A   …   *Thanks very much for taking the time to speak with me today X. We appreciate you doing this, particularly when I know you are so busy.*
- Tell them a bit about the research. Eg *As you know, we are evaluating Tell Touch with a view to understanding to what extent Tell Touch does for its users what it is intended to do.   We want to understand where the users find Tell Touch beneficial and what they think about the tool. Whilst the developers of Tell Touch have engaged us to do this evaluation, we are independent of them and our findings will not be shaped in any way by the founder's preferences or beliefs….we will tell it like we see it.*
- Tell them what will happen in the interview. Eg *Today, I am going to ask you a series of questions which will largely be the same questions I ask everyone who has agreed to be interviewed. I will make sure we take no longer than 45 minutes, but it could be that we only speak for 30 minutes.*
  - *The interview gives us an opportunity to hear a user's personal experience, whereas the survey you completed was focussed on particular aspects of the tool. The survey was not intended to get an insight into the individual's experience of the application.*
  - *I would like to record our interview….is this ok with you if I record the interview? I want to assure you that neither your employer nor the Tell Touch founders will receive this recording or a transcript of the recording. No one except the Swinburne researchers in this project will view or have access to this recording.*
- A   q   A   "*I'll have to get back to you on that one*" You can always phone me 0488 465 646 if an immediate answer is prudent.
- Ask them if they are ready, and that you will now begin the interview.
- Turn on the recording and *For the purposes of the recording X, could you say yes to the following questions: Do you consent to this interview? Do you consent to the interview being recorded?*

Please ask these questions:

1. How would you describe your overall experience with the Tell Touch app?
2. Does the Tell touch app meet your needs?
3. What did you like the most and least about using this product?
   1. Do you use all the features of Tell Touch; if not which features do you not use and why?
   2. Which features do you like most and why?
4. What is your experience in using Tell Touch for accreditation purposes?
5. Does Tell Touch lack any information that could be helpful for accreditation process?
6. What is your experience in using Tell Touch for service improvement for residents?
7. Which features of, or information available through Tell Touch, do you think are particularly helpful?
8. What, if anything, about Tell Touch causes you frustration?
9. Do you think Tell Touch saves time in doing the work of the Aged Care Home? If so how?
10. Do you think the use of Tell Touch at your Aged Care Home will help stop problems before they get escalated (for example escalated to the Commission)? If you have seen an example of this happening, can you tell me about it?
11. Is there anything else you would like to share about Tell Touch?

At the end, thank them again for their time, and tell them you will organise a $25 Wish Gift e-card for them as a token of our appreciation that they took the time to participate in this interview.

Ask them if they have any questions of you.

Farewell them & hang up.