Video for Knowledge Translation: Engaging Older Adults in Social and Physical Activity*

Callista A. Ottoni, ¹ Joanie Sims-Gould, ^{1,2} and Heather A. McKay^{1,2}

RÉSUMÉ

Une vaste majorité des Canadiens âgés ne pratiquent pas suffisamment d'activité physique. Le développement de stratégies originales et innovantes encourageant et appuyant les modes de vie actifs est donc urgent. La vidéo est un outil prometteur pour l'application de connaissances (AC) visant l'engagement de divers publics dans la discussion et l'adoption de comportements favorisant la santé. L'Approche systématique pour les vidéos fondées sur des données probantes (*Systematic Approach to Evidence-informed Video*, SAEV), qui fournit un cadre pour guider et structurer le développement de vidéos ayant pour objectif l'AC, a été utilisée pour la création et la diffusion d'un documentaire de 19 minutes, *I'd Rather Stay* (https://vimeo.com/80503957). Quarante-huit participants âgés de 60 ans et plus ont visionné la vidéo, participé à des groupes de discussion et rempli des questionnaires concernant cette vidéo. Les données ont été recueillies après le visionnement et lors d'un suivi organisé six mois plus tard. La vidéo a éduqué, encouragé et mobilisé les personnes âgées sur les questions liées à l'autonomie, à l'activité physique et aux liens sociaux. Nous encourageons les chercheurs à adopter des stratégies d'AC auxquelles les personnes âgées peuvent s'identifier, qui sont accessibles et par lesquelles elles peuvent s'engager à un niveau critique, autant sur le plan émotionnel qu'intellectuel, comme les vidéos basées sur des preuves scientifiques.

ABSTRACT

Most older Canadians do not engage in sufficient physical activity. There is an urgent need for outside-the-box strategies that encourage and sustain active lifestyles. Video is a promising knowledge translation (KT) tool to engage diverse audiences in discussion and action around health promoting behaviours. We adopted a KT framework to inform a structured process of video development we have named *systematic approach to evidence-informed video* (SAEV). This guided the creation and dissemination of a 19-minute documentary video: *I'd Rather Stay* (https://vimeo.com/80503957). Following screenings, we collected focus group and questionnaire data from 48 participants aged 60 years and older at baseline and 6-month follow-up. The video educated, encouraged, and activated older people around issues such as independence, physical activity and social connectedness. We encourage researchers to adopt KT strategies – and to use evidence-informed video – that older adults can relate to and critically engage with on an accessible, emotional, and intellectual level.

- 1 Active Aging Research Team, Vancouver
- 2 Department of Family Practice, Faculty of Medicine, University of British Columbia, Vancouver
- * We wish to thank the older adults and content experts who generously shared their stories in the documentary film, *I'd Rather Stay*. The Active Aging Research Team received funding from the Peter Wall Institute of Advanced Studies at the University of British Columbia to conduct this research (Project grant number 20R22565). Sims-Gould is supported by a Canadian Institutes of Health Research New Investigator Award and a Michael Smith Foundation for Health Research Scholar Award.

Manuscript received: / manuscrit reçu : 28/06/18 Manuscript accepted: / manuscrit accepté : 30/01/19

Mots-clés: vieillissement, application de connaissances, vidéo, activité physique, changement de comportement, environnement social

Keywords: aging, knowledge translation, video, physical activity, behaviour change, social environment

La correspondance et les demandes de tirés-à-part doivent être adressées à : / Correspondence and requests for offprints should be sent to:

Dr. Joanie Sims-Gould Robert H. N. Ho Research Centre 2635 Laurel St. Vancouver, BC V5Z 1M9 (simsg@mail.ubc.ca)

Introduction

Physical activity and social connectedness confer a myriad of health benefits in later life (Carlson et al., 2012; Nelson et al., 2007). Accordingly, neighbourhood-built and social environments significantly influence our well-being as we age (Hanson, Ashe, McKay, & Winters, 2012; Ottoni, Sims-Gould, Winters, Heijnen, & McKay, 2016; Rosso, Auchincloss, & Michael, 2011). Yet social isolation is on the rise (Findlay, 2003; Nicholson, 2012), and the global pandemic of sedentary behaviour persists (Ding et al., 2016). Taken together with the unprecedented escalation in the proportion of older adults across North America, there is an urgent need for outside-the-box strategies that encourage and sustain active lifestyles. We know surprisingly little about why older people choose to be – or not to be – physically active, and connect with others. We also have much to learn about effectively engaging older adults as informed partners in constructive dialogue. Tailored knowledge exchange tools are important to facilitate learning and catalyze action in community-based settings. Evidenceinformed documentary style videos are one such knowledge translation product.

Video – both third-person narrative and first-person/ documentary style – has emotionally and intellectually engaged a wide, global audience to communicate key messages, captured the voices of lived experiences, changed behaviours, and inspired action (Dilley et al., 2014; Sandercock & Attili, 2014; Singhal & Rogers, 2004). Video as a fundamental strategy to entertain and educate is increasingly popular (Renes, Mutsaers, & van Woerkum, 2012). This approach has been used to prompt action such as turnout for vaccination, draw attention to the resilience of children with cancer (e.g., http://www.youtube.com/watch?v=ihGCj5mfCk8), and to communicate the substantial health benefits of physical activity (e.g., http://www.youtube.com/ watch?v=aUaInS6HIGo, with upward of 5.6 million hits and counting). However, there has been scarce systematic evaluation of health promotion videos that convey real-lived experiences and reflect body type (e.g., size, shape), age, and ethnic diversity (Everette et al., 2017). In a systematic review of 28 videos used for health promotion (Tuong, Larsen, & Armstrong, 2014), only one focused on the use of video with older adults (Wood, 1996). Further, we need to better understand how dissemination contexts influence knowledge uptake (Armstrong et al., 2013; Greenhalgh & Malterud, 2017).

To address these deficits, we used documentary video to explore the question: Is a picture worth a thousand words? More specifically, we sought to understand the complexity and relevance of information that video can effectively communicate to audiences, and

the influence of the environment in which the video is shared. Thus, we adopted a knowledge translation framework (Estabrooks, Thompson, Lovely, & Hofmeyer, 2006; Wathen, Sibbald, Jack, & MacMillan, 2011) to guide the creation and dissemination of a 19-minute, tailored, evidence-informed documentary video titled *I'd Rather Stay*. The term evidence-informed refers to how choices regarding video content were based on scholarly research findings. We developed *I'd Rather Stay* with the intent to educate audiences and encourage discussion about neighbourhood-built and social environment barriers and facilitators to older adults' physical activity and social connectedness.

Our specific research objective was to describe the knowledge translation (KT) impact of *I'd Rather Stay*, coupled with a facilitated discussion, on older adults. We were particularly interested in how video as a KT product influences (a) learning environment, (b) information transfer/education, and (c) subsequent actions (together defined as "utilization") by older adult participants.

Knowledge Translation and Exchange Framework

We share the common perspective among KT researchers/practitioners that there is no satisfactory overarching knowledge translation theory (Estabrooks et al., 2006). We define KT "as a dynamic process of exchange, synthesis, and ethically sound application of knowledge within a complex system of relationships among researchers and users" (McWilliam, Kothari, Ward-Griffin, Forbes, & Leipert, 2009).

To inform our conceptual framework, we drew on different KT theories and models, and adapted them to the specific context and aims of our study. We principally drew upon the interactive model of knowledge translation and the diffusion of innovation theory (Estabrooks et al., 2006). We posited that KT is not a linear process, but rather comprises multi-directorial influences that occur at different times throughout a given process (Estabrooks et al., 2006).

Effective KT happens via the two-way sharing of information between researchers and participants, where both are active participants, who have opportunity to critically reflect (Wathen et al., 2011). Moreover, learning and knowledge adoption is a social, interactive, dynamic process, influenced by socio-political context, personal values, subjective experience, and emotion (McWilliam et al., 2009).

We framed our analysis as per Kitson et al. who have considered that successful knowledge utilization (the end-stage goal of knowledge translation and exchange processes) stems from a marriage of relationship between evidence, context, and facilitation (Kitson & Harvey, 2016). Further, we positioned knowledge utilization across three degrees of impact:

- (1) Awareness confirm or add to existing knowledge/beliefs;
- (2) Adoption adopt knowledge to share with others; and
- (3) *Action* adopt to propose a new policy or take a new course of personal action (Wathen et al., 2011).

We applied this conceptual frame to our analysis.

Methods

To meet our research objective, we developed the video and then screened the film with older adults (aged 65 years and older) in five communities across British Columbia. We conducted focus groups after each screening, and then followed up with two to three participants from each site six months later to assess the longer-term impact of the video. We received University of British Columbia Behavioural Research Ethics Board Approval to implement this study.

I'd Rather Stay Documentary Video Development

To create *I'd Rather Stay*, our research team worked collaboratively with a film production team for more than a year. We embarked upon a collaborative, structured process we call a *systematic approach to evidence-informed video* (SAEV). Our knowledge broker (KB), who is also a filmmaker, served as a key translational bridge within and between groups. Our research team of three included the KB/filmmaker, a social worker with extensive experience conducting qualitative research with older adults, and a global expert in physical activity and implementation science.

Phase One: Thematic Development

To develop our thematic focus, we used framework analysis to review data acquired from three mixed-methods research studies conducted with older adults (aged 60 years and older) in Vancouver, British Columbia. Studies were conducted in different Vancouver neighbourhoods, each with distinct socio-demographic and built environment characteristics (Chudyk et al., 2015; Franke, Winters, McKay, Chaudhury, & Sims-Gould, 2017; Tong, Sims-Gould, & McKay, 2016). Studies had the same overarching research question: What makes a neighbourhood a good place to grow old?

Framework analysis is designed for research that uses specific questions, with a pre-designed sample (e.g., older adults) and on a priori topics (e.g., built environment and physical activity) (Franke et al., 2013). Researchers describe and interpret what is happening in a particular setting by anchoring and guiding the research within the original accounts and observations of participants (Ritchie & Spencer, 2002).

Further, framework analysis is comprehensive and supports within- and between-case analysis (Srivastava & Thompson, 2009). We sifted, charted, and sorted data based on key issues and themes that emerged using five steps: (a) familiarize; (b) identify a thematic framework; (c) index; (d) chart; and (e) map and interpret (Ritchie & Spencer, 2002; Srivastava & Thompson, 2009). The product of this process was a framework analysis report. The framework analysis report included a summary of key themes and findings, key statistics, video subject profiles that illustrate the diversity of the population impacted, messaging for the film, and target audiences. This report, grounded in our team's existing research, was used internally to guide the development of the film.

Phase Two: Treatment

Our KB used the framework analysis report to create a documentary video thematic script – a treatment. She shared the treatment with the larger research team. The KB then used feedback provided by the research team to refine the treatment.

Phase Three: Recruitment

Through a process of informal interviews with our research team, community stakeholders (South Vancouver Neighbourhood House and West End Seniors Network representatives), and older adults at community-based events, our KB interacted with a wide range of older adults. The identification of potential video subjects was heavily guided by the framework analysis report. We sought individuals with diverse demographic characteristics (men, women, widowed, married, immigrant, and non-immigrant), a range of physical mobilities, with varied levels of social-connectedness, living in neighbourhoods with differing (low, medium, and high) walkability. The KB then provided potential participants with information about the documentary video project. Individuals who were interested in participating contacted the KB via telephone to obtain more information. Four older adults and one urban planning professional who filled video subject criteria volunteered to participate in the documentary. Each participant provided informed consent at the first in-person meeting. Participants were provided a \$50 honorarium to compensate them for their time.

Phase Four: Production

The KB led a four-person video production team through stages of video production (shooting) and post-production (editing). As per theme development, she also used the framework analysis report to draft interview questions that formed the basis of on-camera interviews. The video production team used

the treatment to guide all shooting, location, and content editing decisions. The research team, and key representatives from the South Vancouver Neighbourhood House and West End Seniors Network, were called upon to provide detailed input at a rough-cut screening. Based on feedback, the KB revised video content into a final-cut, 19-minute documentary video (view *I'd Rather Stay* trailer: https://vimeo.com/80503957 and full video: https://vimeo.com/80501182). We developed the following synopsis to accompany the film in promotional materials and screenings:

What makes a neighbourhood a good place to grow old?

I'd Rather Stay shares the intimate stories of five older adults, living in different Greater Vancouver neighbourhoods. From dense urban centres to cardependent suburbs, the film delves into their day-to-day lives and explores personal issues of mobility, vulnerability, and resilience. We begin to understand the love that these older people feel for their homes and neighbourhoods, and their real fear should they lose their independence.

Planners and public health professionals work towards addressing problems presented by the shifting demographic in North America – "a ticking time bomb". The solution may well be found in the words and wisdom of older adults as they consider what makes a neighbourhood a healthy and inclusive place to grow old. More than a call to action, I'd Rather Stay invites us to consider our collective future as a rapidly aging society.

Focus Groups

Initial Assessment

To identify participants for the focus groups, the KB utilized professional networks of community coorganizers across five communities in four British Columbia Health Authorities (Langley and White Rock [Fraser Health], Victoria [Vancouver Island Health], Prince George [Northern Health], and Cranbrook [Interior Health]). Initial contact with potential coorganizers was via email; follow-up was via telephone. Co-organizers were provided a \$100 honorarium (to cover their time commitment) to recruit eight to 12 individuals aged 65 and older to participate in a video screening and facilitated focus group discussion. To recruit participants from within their municipality, the co-organizers, all of whom were already involved in community-based work with older adults, used email lists and gave in-person presentations at community centres. Participant characteristics are included in Table 1.

The KB led data collection at the five focus groups. She explained the structure of the session and asked participants to review and sign an informed consent form.

After signed consent was provided, the KB screened *I'd Rather Stay*. Following the screening, the KB facilitated group conversation with open-ended questions such as What stood out for you? How are the character experiences similar or different to your own? A notetaker took detailed observational field notes. At the end of each session, participants also completed a questionnaire.

We audio-recorded each session, and fully transcribed recordings verbatim. A research assistant de-identified transcripts and assigned participants' pseudonyms (used in this report).

6-Month Follow-up

Approximately six months after each focus group, a research assistant randomly selected two to three participants from each location (using participant number and https://www.randomizer.org/) for a telephone follow-up interview. We followed up only with participants who consented to a follow-up interview at the time of the initial focus group session. Participants were contacted via telephone. A research assistant administered the short survey (see Table 2) and audio-recorded, transcribed, and blinded all responses.

Data Analysis

We used framework analysis to review baseline and follow-up data (Srivastava & Thompson, 2009). During a series of team meetings, we discussed the emergence of common themes. To compare and contrast themes within and across groups, we adopted the constant comparison method (Glaser & Strauss, 1967). This model allowed us to discover similarities and differences in the data (map and interpret). We cross-referenced themes from focus group and questionnaire data, highlighted outliers, and noted themes that were consistent in both focus group and questionnaire data.

Results

To illustrate the impact of *I'd Rather Stay* on older adults, we categorized our findings along the aforementioned KT scale of impact: *awareness* – confirms or adds to existing knowledge/beliefs; *adoption* – shares knowledge with others; and *action* – adopts to propose a new policy or take a new course of personal action. In the following three sections we report on both the initial impact, and results at the six-month follow-up. However, we first discuss the environment for knowledge exchange, as this is the milieu in which the other KT impacts (awareness, adoption, and action) occur.

Environment for Knowledge Exchange

I'd Rather Stay contributed to the learning environment in a number of ways. For more than half of participants, I'd Rather Stay was a major motivator for them to attend

Table 1: Demographic characteristics

Characteristic	Total $(n=48)$	Characteristic	Total (n = 48)	
Age, mean (years)	75.3	Education		
Sex		Primary	3 (6.3%)	
Male	9 (18.8%)	Some or Completed Secondary	9 (18.8%)	
Female	38 (79.2%)	Some or Completed Trade	17 (35.4%)	
Unknown	1 (2.1%)	Some or Completed Undergraduate	11 (22.9%)	
Born in Canada		Some or Completed Graduate	8 (16.7%)	
Yes	34 (70.8%)	Residence Ownership		
No	12 (25.0%)	Rent	10 (20.8%)	
Unknown	2 (4.2%)	Own	35 (72.9%)	
If no, yrs. lived in Canada, mean	1.8	Other	2 (4.2%)	
Race/Ethnicity		Unknown	1 (2.1%)	
White/European Descenta	42 (87.5%)	Employment		
Black/African Descent	1 (2.1%)	Retired & Not working	36 (75%)	
Metis/Inuit/First Nations	2 (4.2%)	Full-time	3 (6.3%)	
Unknown ^b	3 (6.3%)	Part-time	6 (12.5%)	
Marital Status		Other	3 (6.3%)	
Single	3 (6.3%)	Mobility Aid Use		
Married	19 (39.6%)	Yes	18 (37.5%)	
Widowed	16 (33.3%)	No	30 (62.5%)	
Separated	1 (2.1%)	Valid Driver's License		
Divorced	8 (16.7%)	Yes	41 (85.4%)	
Unknown	1 (2.1%)	No	6 (12.5%)	
Living Arrangements		Unknown	1 (2.1%)	
Alone	26 (54.2%)	Falls in the Past 6 Months		
Spouse/Partner	18 (37.5%)	Yes	18 (37.5%)	
Family Member	2 (4.2%)	No	27 (56.3%)	
Friend/Roommate	0 (0.0%)	Unknown	3 (6.3%)	
Other	2 (4.2%)	Number of falls, mean	1.1	

Note. ^a All individuals who identified as "Canadian" or specified a specific European ethnicity were categorized as of European Descent. ^b Individuals who identified as "adopted" categorized as Unknown.

the focus group discussion and made it easier for them to open up about their experiences. Below we provide one example from the focus group discussion where *I'd Rather Stay* served as a springboard for conversation:

Participant: But I'd like to back up a little bit and remark on the woman who was living alone; that was not very realistic.

Facilitator: OK.

Participant: I mean, she was depending on her neighbours. She wasn't looking ahead. And we chose [where we live] because my husband and I were president of [a seniors' organization]. And one of our mandates was housing. So we knew this is what we were going to do eventually is choose an assisted living ...

This exemplifies how *I'd Rather Stay* provoked conversation on issues that participants identified as important. The documentary springboarded topics for conversation that arose from points of both similarity and difference. Chris commented, "I notice there's a lot of things in the film that I can relate to. The neighbours looking after each other, helping out." Whereas, Karen underscored a point of difference:

Table 2: Questions asked of participants and their responses with respect to factors related to the learning environment

	Responses $(n = 48)$					
Questions	Not at All	Not Much	Neutral	A lot/Mostly	Very Much	No Response
On a scale of 1–5, how much did <i>I'd Rather Stay</i> :						
Motivate you to come to this — focus group discussion	3 (6.3%)	5 (10.4%)	11 (22.9%)	17 (35.4%)	12 (25.0%)	0 (0.0%)
Make it easier for you to open up — about your experiences?	2 (4.2%)	0 (0.0%)	7 (14.6%)	22 (45.8%)	16 (33.3%)	1 (2.1%)
On a scale of 1–5, how would you rate your:						
Overall enjoyment of the focus group discussion	0 (0.0%)	0 (0.0%)	1 (2.1%)	23 (47.9%)	24 (50.0%)	0 (0.0%)
Overall enjoyment of the documentary I'd Rather Stay	0 (0.0%)	1 (2.1%)	5 (10.4%)	21 (43.8%)	20 (41.7%)	1 (2.1%)

One thing with some of the people you were interviewing, they have facilities close by. They're not necessarily car-dependent which might impact some of us in this community. And they have sunshine and good surfaces most of the year which is something we do not have.

KT Scale of Impact

Awareness – Confirming or Adding to Existing Knowledge/Beliefs

Most participants learned something new from the documentary. This was underscored in focus group discussions. Many participants deepened their understanding of the challenges and opportunities of growing older in different social and environmental contexts with varying physical-mobility levels. One focal area of discussion was the importance of adaptability to maintain health and wellness in the face of physical decline. Ted stated:

I think one of the prominent things that this movie showed, and also which we all learn as you get older, is the word "change" and "adaptability." And some of us have had a lot of changes ... At 92 years of age, I had problems with the nervous system which has put me into a walker ... I gave up my license voluntarily ... the main thing is how we adapt to these things.

For Nina, *I'd Rather Stay* reinforced the relationship between maintaining physical mobility and aging in place:

I found that the movie was telling me how important mobility is. If you don't have mobility, then you become stagnant and you're in your own home but then that'll only last so long. And then, like [focus group participant's name] said, you'll have to go to a care facility. And I think that's what most people fear is going to a care facility. They'd rather stay at home.

Nina made the important connection between maintaining physical mobility and older adults' independence. This was described by Nina as one's ability to live at home for as long as one desired. Gerald commented in his questionnaire response that *I'd Rather Stay* confirmed the importance of planning for the future: "housing, transportation, physical capacity, health, etc."

Participants also reported an increased awareness of social isolation and, conversely, social connectedness. Karen suggested that she was isolated in her experience of aging. For her, *I'd Rather Stay* was "a reminder that I am not alone in this challenge of getting older." Participants underscored a deeper understanding of the importance of being part of activities that contribute to well-being. For some, those activities were directly linked to social interaction. When asked about

the most significant learning she'd taken away from the documentary, Nora said:

For me it was the 88-year-old widow that she was still able to reach out, because at that age, sometimes you just curl up and get into a deep depression, whatever, when you lose your husband or vice versa. But she chose instead to reach out, to re-integrate and do the Zumba, the samba, whatever she was doing. And I think that's great.

Her statement also suggests that for many participants, physical activity and social connectedness are inextricably linked.

Adoption - Sharing Knowledge with Others

Initial Assessment

Twenty-nine participants planned to share information they learned at the session with someone else. Many participants were motivated to improve the health and well-being of themselves or others. Most expressed a desire to share *I'd Rather Stay* with family members or older adult peers who are sedentary and at risk of isolation. Lisa expressed an awareness of inactive seniors in her social network:

[The character in the documentary] is doing the salsa ... I admire that ... I know some of the opposite type of people, that they just stay in the house. They watch TV, their health is just – you know, you disintegrate and you regress into – you become older a lot sooner.

Judy wrote, she wanted a "couple of friends" to watch it "who need to learn a different perspective on life per se (sic)."

Four participants wanted to share the documentary with broad audiences, including the younger generation, to prevent isolation before it happens. Tim wrote, "all seniors and those who will be seniors" should watch the film. Nora wrote that she wanted to share it with other older adults and her two daughters.

Some participants wanted to adopt the information in *I'd Rather Stay* for advocacy. Neil asserted that "I think that the middle couple had a really good attitude. They had a plan. They were their own advocates, so I'm really big on that one. I was really impressed with them." Six participants commented that *I'd Rather Stay* is a good resource to share at community-based organizations like seniors centres or churches. For some participants, a tension surfaced between self-advocacy and the responsibility of municipalities to support older adults. Deborah remarked:

This is just from the film, and also from experience in various parts of [my city]. You see an older woman with her walker, capable of going to the store, but she doesn't have a safe walkway to get

herself from her house to the grocery store ... If you moved somewhere 40 years ago when there weren't sidewalks you shouldn't have the expectation that they're going to come in and put in sidewalks just because now you're 80. However, I think there really has to be some balance and some declared intention about how you intend to make certain neighbourhoods walkable so people can make decisions about where to move.

A few participants were motivated to use information from *I'd Rather Stay* for peer education about self-advocacy. Nina commented: "we have a plan in place, but I will still share it with others." Those who participated in the Cranbrook focus group, were especially vocal about the notion they could not rely on any government to better their lives; they had to take action if they wanted to improve their personal circumstances.

6-Month Follow-up

At 6-month follow-up, 46 per cent of the participant sub-sample (n = 15) recalled sharing information from the documentary with someone else. Consistent with baseline data, at follow-up participants also reported sharing information with friends and family and/or members of community-based organizations. Most discussed sharing information about the documentary with friends or family members. Kelly stated, "Yes, I talked about the contents of the documentary physical challenges and financial challenges of independent living." Linda said she reached out to her neighbour after watching the documentary. She talked about the lives of the characters and the need for community support: "it's nice to know that somebody cares," she remarked. Four participants talked to representatives of community and seniors' organizations. Deborah said, "I talked to the administrator of [my municipality's] activity about seniors' health and what's offered [locally]."

Action – Propose a New Policy, or Take a New Course of Personal Action

Initial Assessment

Forty-four participants responded that they would take some course of action based on new knowledge acquired from watching the documentary. Some felt motivated to look into their communities to see what type of social opportunities were available. Most of these participants sought to increase social and community connections. June remarked in the focus group:

Yeah, I think for me, overall in the movie came across the importance of community and the facilities available. A lot of things play a part ... but I think the social is probably one of the most important.

Almost half of participants expressed a general concern about taking or maintaining action that contributed to their physical strength and independence. Tim remarked, "I thought the movie pointed out several things that sooner or later I guess we're all going to be facing. And I think it's something you put out of your mind as long as you can." After viewing I'd Rather Stay, he felt encouraged to not procrastinate in thinking about the future. However, he expressed a certain degree of intimidation: "I've seen the future and I don't like what I see" [laughs].

Some participants were propelled to action specifically to increase their exercise. Linda remarked in the questionnaires that "I see more now the importance of exercise, and my need for more exercise." Thomas, more reluctantly, commented in a focus group that *I'd Rather Stay* "nagged me to exercise more."

However, many participants felt they had adequately planned for the future and were maintaining a healthy level of physical and social activities. Chris was encouraged to keep active: "I see that if one keeps active it does make a difference." Similarly, Judy identified positively with some individuals featured in *I'd Rather Stay*: "I think I am doing things much like the people in the documentary. Basically I am an active person." Participants like Judy and Chris felt their lifestyles did not warrant a new course of action.

6-Month Follow-up

At 6-month follow-up, 67 per cent of the participant sub-sample had taken a new course of action as an outcome of watching *I'd Rather Stay*. The importance of social connectedness continued to predominate; almost half of participants took action related to strengthening their social engagement. June went to her local community centre to see what classes were available, Nancy joined a book club, and Carl started playing table tennis. Both sedentary (e.g., book club) and active (e.g., table tennis) pursuits are consistent elements of social engagement. For other respondents, new action was more directly related to increasing physical activity. After watching *I'd Rather Stay* Nora stated, "I am more conscious of walking instead of waiting for the bus." Similar to the finding at baseline, individuals who did not take any course of action felt they were already doing enough to maintain their health and wellness.

Consistent with the baseline findings, actions related to self-advocacy were prevalent. June was inspired to go to City Hall and lobby the municipal government for better public transportation and supportive housing. She asserted that watching the documentary and participating in the discussion session "made me a better advocate for myself." Similarly, Elaine "got really

involved" in community organizing to raise awareness about social isolation and age-supportive neighbour-hoods. Thomas took steps towards future planning by organizing a power of attorney. These respondents all took empowered action to better their immediate and longer-term life circumstances.

Housing was a topic that stood out more prominently at 6-month follow-up as compared with baseline. Val was motivated to spearhead a co-housing project in her community. She wanted to integrate herself into a supportive intergenerational community. Linda commented: "I put my name into a building that is being built – somewhere I can live until I die." Both women took action to position themselves to age in place, in a supportive environment, as they grew older (see Tables 3 and 4).

Discussion

As a KT tool, *I'd Rather Stay* had a positive impact on learning environment, participant understanding, and actions. Thus, our findings support the notion that innovative strategies such as documentary video can effectively educate, encourage, and activate older people around issues such as independence, physical activity,

Table 3: Questionnaire responses related to knowledge translation impact – awareness, adoption, action – of *I'd Rather Stay* at baseline

Knowledge Translation Impact of <i>I'd Rather Stay</i>	Total (n = 48)		
Awareness			
Learned something new	34 (70.8%)		
Learned nothing new	6 (12.5%)		
No response	7 (14.6%)		
Adoption Motivated to share information with others No intention to share information with others No response	29 (60.4%) 4 (8.3%) 15 (31.3%)		
Action Anticipate will influence future action(s) Anticipate will not influence any action No response	21 (43.8%) 15 (31.3%) 12 (25.0%)		

Table 4: Knowledge translation impact (adoption and action) of *I'd Rather Stay* at 6-month follow up

Knowledge Translation Impact of I'd Rather Stay	Total (<i>n</i> = 15)		
Adoption Shared information with others	7 (46.7%)		
Did not share information with others Could not remember	7 (46.7%) 7 (6.7%) 1 (6.7%)		
Action Took personal action based on documentary Took no specific action based on documentary Unclear	10 (66.7%) 4 (26.7%) 1 (6.7%)		

and social connectedness. Success of the knowledge translation is suggested by how participant education and action was in line with what research evidence suggests are important factors to promote older adult health and well-being. Notably, these factors are the importance of regular physical activity and social engagement, and availability of or access to neighbourhood environments that facilitate opportunity in these realms. We discuss our findings in the context of KT below.

KT in Canadian Aging and Health Research

Researchers in Canada are implored to integrate KT plans into their research grants and proposals; this is a requirement of many agencies that fund gerontology research, including the Canadian Institutes of Health Research (CIHR, 2016), the Michael Smith Foundation for Health Research (2018), AGE-WELL (2015), and many hospital foundations (e.g., Sunnybrook Health Sciences Centre, 2018). Notwithstanding, KT in the field of health and aging is presently underdeveloped. Of 53 systematic reviews conducted on KT, only two focused on older adults or elder care (Boström, Slaughter, Chojecki, & Estabrooks, 2012). Furthermore, most KT and aging plans and frameworks have tended to focus on work with and for policymakers (Ellen, Panisset, Araujo de Carvalho, Goodwin, & Beard, 2017) and professionals (Boström et al., 2012), not KT with older adults. Our research contributes to this glaring omission in the literature, presenting the KT experiences of older adults, in their voices.

Development Process and Implementation of KT Tool

Knowledge translation researchers posit that context, process, and facilitation all play an important role in knowledge translation (Evans & Scarbrough, 2014; Kitson & Harvey, 2016). Our findings support this claim. The iterative, research-informed process we adopted to develop the video was crucial to create a KT tool that proved relevant and actionable for both older adults and researchers. At every stage of development, we attended to the contexts in which, first, the KT product was created, and second, where stakeholders were most likely to use the product.

From that focused starting place, we facilitated and created an environment that promoted information sharing via small group discussion. This model proved an effective means to disseminate information to older adults. Although a member of our research team was present to screen the video and pose questions to study participants, group conversation was almost exclusively peer-to-peer driven. That is, the older adults characterized on screen were accepted as peers of our research participants. These elements created a non-hierarchical

39

and, therefore, perhaps less intimidating environment, that promoted social interaction wherein older adults could comfortably engage. Consistent with Conklin, Lusk, Harris, and Stolee (2013) and McWilliam et al. (2009), our findings demonstrate that social interaction and engagement are elements within the context of dissemination that mediate knowledge adoption. Consistent with work by Choi (2009) and Kim and Merriam (2004), we also found that both social contact and cognitive interest motivate older-adult learning, particularly when that learning is peer-led. Moreover, a screening followed by discussion created a space for push-pull of dialogue and critical reflection between researchers and users (McWilliam et al., 2009). That is, viewers who were research participants were in dialogue with I'd Rather Stay – a researcher-created KT product. Thus, a less frequently used structural design (video documentary) effectively bridged the knowledge gap and encouraged uptake.

Content and Design of KT Tool

Design of our KT tool is likely an integral component that contributed to its impact. First, the documentary video format foregrounds the voices and stories of older adults. This allows an older adult audience to connect with the subject matter as peers. This approach overcomes a pitfall that other researchers have identified: inadequate socio-cultural and age-appropriate tailoring that serves as a barrier for researchers to connect with individuals about physical activity and health (Brawley, Rejeski, & King, 2003; Koehn, Habib, & Bukhari, 2016; Mendoza-Vasconez et al., 2016). Thus, participants' high-level enjoyment of, and relatability to, I'd Rather Stay helped to diminish these barriers and contributed to this product's KT impact. The video screening and discussion facilitated a productive, peer-centred learning environment that enhanced participant engagement.

The documentary video format also combined personal narrative with some supportive factual content. This effectively distilled and made complex information about individual, societal, and policy-level influences on older adult behavior accessible. The effectiveness of this approach is suggested by how the majority of participants learned something new or gained insights.

A third design factor relates to how key findings from our three programs of research centered on "what makes a neighbourhood a good place to grow old?" were conveyed via human-centred storytelling in the documentary. This is in line with the entertainmenteducation model that emphasizes learning through narrative and role modelling rather than cognitive processing of information (Renes et al., 2012). The personal experiences of individuals, rather than disembodied health science concepts, featured in I'd Rather Stay were at the foreground of most focus group participants' comments and desire to share information and/or take action. This extends previous research that suggests that emotional engagement is an important element of effective behavior change interventions (Maio et al., 2007).

Strong narrative engagement is also important to consider in relation to KT impact as it increases the persuasive effect of the information on an audience (Visser et al., 2016). Most participants strongly engaged with the central themes of *I'd Rather Stay*. This may have contributed to participants being motivated to share information with others or take some course of action. Taken together, documentary video holds much promise as an impactful vehicle to facilitate the transfer of information, along the complete scale of KT impact (learning > sharing > action).

Limitations

We sought to represent a range of older adult perspectives, physical mobilities, and environmental contexts in our video. However, capturing the broad diversity of older adult experiences in one 19-minute video was a challenge. We recognize that this film is not representative of all older adults' experiences. Also, given the nature of video as a medium, some potential recruitment subjects did not want to be exposed on film, and hence we could not share their specific stories. Establishing rapport with potential participants, especially when using video, is something that requires an investment of time (Wathen et al., 2011). Future research projects should be mindful of building in enough time to develop relationships with potential participants, before any filming occurs, so as to broaden their recruitment efforts.

Conclusions

Our systematic approach to evidence-informed video (SAEV) to inform the process of video development, followed by a screening and facilitated discussion, had tremendous impact on older adult participants. So much so that some moved into new homes or neighbourhoods that supported their mobility and promoted social connections. Others made strides to create an environment where they could safely age in place in their current home or neighbourhood. We emphasize that for effective KT impact, end-to-end considerations that include research themes and applicability to users, KT tool design, and a dissemination strategy (which includes learning environment and/or method of delivery), are essential. Further, we acknowledge that true knowledge uptake is embedded within a willingness of individual users and established local contexts that, in most cases, are beyond researchers' control. Our findings may reflect

recruitment bias whereby participants already had some degree of readiness for knowledge adoption. However, this does not completely diminish the value of *I'd Rather Stay's* human-centered storytelling as a heuristic, KT impact tool. We encourage researchers to adopt KT strategies that end users relate to and critically engage with on an accessible, emotional, and intellectual level. This approach may support the uptake and adoption of new knowledge.

References

- AGE-WELL. (2015). AGE-WELL NCE Network Goals 2014–2019. Retrieved from http://www.agewell-nce.ca/wp-content/uploads/2015/06/AGE-WELL-Network-Goals.pdf
- Armstrong, R., Waters, E., Dobbins, M., Anderson, L., Moore, L., Petticrew, M., ... Swinburn, B. (2013). Knowledge translation strategies to improve the use of evidence in public health decision making in local government: Intervention design and implementation plan. *Implementation Science*, 8(1), 121. doi: 10.1186/1748-5908-8-121
- Brawley, L. R., Rejeski, W. J., & King, A. C. (2003). Promoting physical activity for older adults: The challenges for changing behavior. *American Journal of Preventive Medicine*, 25(3), 172–183. Retrieved from https://doi.org/10.1016/S0749-3797(03)00182-X
- Boström, A., Slaughter, S. E., Chojecki, D., & Estabrooks, C.A. (2012). What do we know about knowledge translation in the care of older adults? A scoping review. *Journal of the American Medical Directors Association*, 13(3), 210–219. doi: 10.1016/j.jamda.2010.12.004
- Canadian Institutes of Health Research (CIHR). (2016). Knowledge translation at CIHR. Retrieved from http://www.cihr-irsc.gc.ca/e/29418.html
- Carlson, J. A., Sallis, J. F., Conway, T. L., Saelens, B. E., Frank, L. D., Kerr, J., ... & King, A. C. (2012). Interactions between psychosocial and built environment factors in explaining older adults' physical activity. *Preventive Medicine*, *54*(1), 68–73. doi: 10.1016/j.ypmed. 2011.10.004
- Choi, I. (2009). The meaning of older adults' peer teaching: A phenomenological study. *Educational Gerontology*, 35(9), 831–851. Retrieved from https://doi.org/10.1080/03601270902973573
- Chudyk, A. M., Winters, M., Moniruzzaman, M., Ashe, M. C., Sims-Gould, J., & McKay, H. (2015). Destinations matter: The association between where older adults live and their travel behavior. *Journal of Transport & Health*, 2(1), 50–57. Retrieved from https://doi.org/10.1016/j.jth.2014.09.008
- Conklin, J., Lusk, E., Harris, M., & Stolee, P. (2013). Knowledge brokers in a knowledge network: The case of Seniors Health Research Transfer Network knowledge brokers. *Implementation Science*, 8(1), 7. doi: 10.1186/1748-5908-8-7

- Dilley, L. B., Gray, S. M., Zecevic, A., Gaspard, G., Symes, B., Feldman, F., ... Sims-Gould, J. (2014). An educational video to promote multi-factorial approaches for fall and injury prevention in long-term care facilities. *BMC Medical Education*, *14*(1), 102. Retrieved from https://bmcmededuc.biomedcentral.com/articles/10.1186/1472-6920-14-102
- Ding, D., Lawson, K. D., Kolbe-Alexander, T. L., Finkelstein, E. A., Katzmarzyk, P. T., van Mechelen, W., ... Lancet Physical Activity Series 2 Executive Committee. (2016). The economic burden of physical inactivity: A global analysis of major non-communicable diseases. *The Lancet*, 388(10051), 1311–1324. doi: 10.1016/S0140-6736(16)30383-X
- Ellen, M. E., Panisset, U., Araujo de Carvalho, I., Goodwin, J., & Beard, J. (2017). A knowledge translation framework for aging and health. *Health Policy*, 121(3), 282–291. doi: 10.1016/j.healthpol.2016.12.009
- Estabrooks, C. A., Thompson, D. S., Lovely, J. J. E., & Hofmeyer, A. (2006). A guide to knowledge translation theory. *Journal of Continuing Education in the Health Professions*, 26(1), 25–36.
- Evans, S., & Scarbrough, H. (2014). Supporting knowledge translation through collaborative translational research initiatives: 'Bridging' versus 'blurring' boundary-spanning approaches in the UK CLAHRC initiative. Social Science & Medicine, 106, 119–127. Retrieved from https://doi.org/10.1016/j.socscimed.2014.01.025
- Everette, A., Brooks, A., Ramalingam, N. S., Powell, T., Eaton, R., Serrano, E., & Harden, S. M. (2017). An integrated research–practice partnership for physical activity promotion in a statewide program. *Translational Journal of the American College of Sports Medicine*, 2(11), 57–67. doi: 10.1249/TJX.000000000000035
- Findlay, R. A. (2003). Interventions to reduce social isolation amongst older people: Where is the evidence? *Ageing & Society*, 23(5), 647–658. doi: 10.1017/S0144686X03001296
- Franke, T., Winters, M., McKay, H., Chaudhury, H., & Sims-Gould, J. (2017). A grounded visualization approach to explore sociospatial and temporal complexities of older adults' mobility. *Social Science & Medicine*, 193, 59–69. http://doi.org/10.1016/j.socscimed.2017.09.047
- Franke, T., Tong, C., Ashe, M. C., McKay, H., Sims-Gould, J., & The Walk The Talk Team. (2013). The secrets of highly active older adults. *Journal of Aging Studies*, 27(4), 398–409. Retrieved from https://doi.org/10.1016/j.jaging.2013.09.003
- Glaser, B. G., & Strauss, A. L. (1967). Discovery of grounded theory: Strategies for qualitative research. London, ENG: Routledge.
- Greenhalgh, T., & Malterud, K. (2017). Systematic reviews for policymaking: Muddling through. *American Journal of Public Health*, 107(1), 97–99.
- Hanson, H. M., Ashe, M. C., McKay, H. A., & Winters, M. (2012). Intersection between the built and social environments and older adults' mobility: An evidence review. *National Collaborating Centre For Environmental Health*, 11, 1–13.

- Kim, A., & Merriam, S. B. (2004). Motivations for learning among older adults in a learning retirement institute. *Educational Gerontology*, 30(6), 441–455. Retrieved from https://doi.org/10.1080/03601270490445069
- Kitson, A. L., & Harvey, G. (2016). Methods to succeed in effective knowledge translation in clinical practice. *Journal of Nursing Scholarship*, 48(3), 294–302. doi: 10.1111/jnu.12206
- Koehn, S., Habib, S., & Bukhari, S. (2016). S⁴AC case study: Enhancing underserved seniors' access to health promotion programs. *Canadian Journal on Aging/La Revue canadienne du vieillissement*, 35(1), 89–102. Retrieved from https://doi.org/10.1017/S0714980815000586
- Maio, G. R., Verplanken, B., Manstead, A. S., Stroebe, W., Abraham, C., Sheeran, P., & Conner, M. (2007). Social psychological factors in lifestyle change and their relevance to policy. *Social Issues and Policy Review*, 1(1), 99–137. http://dx.doi.org/10.1111/j.1751-2409.2007.00005.x
- McWilliam, C. L., Kothari, A., Ward-Griffin, C., Forbes, D., & Leipert, B. (2009). Evolving the theory and praxis of knowledge translation through social interaction: A social phenomenological study. *Implementation Science*, *4*(1), 26–40. doi: 10.1186/1748-5908-4-26
- Mendoza-Vasconez, A. S., Linke, S., Muñoz, M., Pekmezi, D., Ainsworth, C., Cano, M., ... Larsen, B. A. (2016). Promoting physical activity among underserved populations. *Current Sports Medicine Reports*, 15(4), 290–297. doi: 10.1249/JSR.000000000000000000076
- Michael Smith Foundation for Heath Research. (2018). Knowledge translation. Retrieved from https://www.msfhr.org/our-work/activities/knowledge-translation/kt-at-a-glance
- Nelson, M. E., Rejeski, W. J., Blair, S. N., Duncan, P. W., Judge, J. O., King, A. C., ... Castaneda-Sceppa, C. (2007). Physical activity and public health in older adults: Recommendation from the American College of Sports Medicine and the American Heart Association. *Circulation*, 116(9), 1094–1105. Retrieved from https://doi.org/10.1161/CIRCULATIONAHA.107.185650
- Nicholson, N. R. (2012). A review of social isolation: An important but underassessed condition in older adults. *The Journal of Primary Prevention*, 33(2–3), 137–152. doi: 10.1007/s10935-012-0271-2
- Ottoni, C. A., Sims-Gould, J., Winters, M., Heijnen, M., & McKay, H. A. (2016). "Benches become like porches": Built and social environment influences on older adults' experiences of mobility and well-being. *Social Science & Medicine*, 169, 33–41. doi: 10.1016/j.socscimed.2016.08.044
- Renes, R. J., Mutsaers, K., & van Woerkum, C. (2012). The difficult balance between entertainment and education: A qualitative evaluation of a Dutch health-promoting documentary series. *Health Promotion Practice*, 13(2), 259–264. Retrieved from https://doi.org/10.1177/1524839910390313

- Ritchie, J., & Spencer, L. (2002). Qualitative data analysis for applied policy research. In A. M. Huberman & M. B. Miles (Eds.), *The Qualitative Researcher's Companion* (pp. 305–329). Retrieved from http://books.google. hu/books?hl=de&lr=&id=46jfwR6y5joC&oi=fnd&pg=PA305&dq=policy+research+methodology&ots=smCUJOpwRT&sig=TAbCw7dKNpsEojF1SyiH0J-3zlE&redir_esc=y#v=onepage&q=policy research methodology&f=false
- Rosso, A. L., Auchincloss, A. H., & Michael, Y. L. (2011). The urban built environment and mobility in older adults: A comprehensive review. *Journal of Aging Research*, 2011, 10. Retrieved from http://dx.doi.org/10.4061/2011/816106
- Sandercock, L., & Attili, G. (2014). Changing the lens: Film as action research and therapeutic planning practice. *Journal of Planning Education and Research*, 34(1), 19–29. Retrieved from https://doi.org/10.1177/0739456X13516499
- Singhal, A., & Rogers, E. M. A (2003). The status of entertainment-education worldwide. In A. Singhal, M. J. Cody, E. M. Rogers, & M. Sabido (Eds.), Entertainment-Education and Social Change: History, Research, and Practice (pp. 3–20). Mahwah, NJ: Lawrence Erlbaum.
- Srivastava, A., & Thompson, S. B. (2009). Framework analysis: A qualitative methodology for applied policy research. *Journal of Administration and Governance*, 4(2), 72–79.
- Sunnybrook Health Sciences Centre. (2018). Research and clinical trials. Toronto, ON: Author. Retrieved from https://sunnybrook.ca/content/?page=dept-med-div-resp-res
- Tong, C., Sims-Gould, J., & McKay, H. (2016). InterACTIVE Interpreted Interviews (I₃): A multi-lingual, mobile method to examine the neighbourhood environment with older adults. *Social Science and Medicine*, *168*, 207–213. Retrieved from https://doi.org/10.1016/j.socscimed.2016.08.010
- Tuong, W., Larsen, E. R., & Armstrong, A. W. (2014). Videos to influence: A systematic review of effectiveness of videobased education in modifying health behaviors. *Journal of Behavioral Medicine*, 37(2), 218–233. doi: 10.1007/s10865-012-9480-7
- Visser, L. N., Hillen, M. A., Verdam, M. G., Bol, N., de Haes, H. C., & Smets, E. M. (2016). Assessing engagement while viewing video vignettes: Validation of the Video Engagement Scale (VES). *Patient Education and Counseling*, 99(2), 227–235. Retrieved from https://doi.org/10.1016/j.pec.2015.08.029
- Wathen, C. N., Sibbald, S. L., Jack, S. M., & MacMillan, H. L. (2011). Talk, trust and time: A longitudinal study evaluating knowledge translation and exchange processes for research on violence against women. *Implementation Science*, *6*(1), 102. doi: 10.1186/1748-5908-6-102
- Wood, R. Y., (1996). Breast self-examination proficiency in older women: Measuring the efficacy of video self-instruction kits. *Cancer Nursing*, 19(6), 429–436.