Examining the social experience in a virtual culinary nutrition education program

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Introduction

- Dementia is a syndrome recognized as a public health priority.[1]
- An estimated 40% of dementia cases could be prevented or delayed through reduction of modifiable risk factors.[2]
- There is substantial evidence to support the role of dietary patterns in dementia risk reduction,[3-6] but less is known about how to support the uptake of these dietary patterns and other risk-reducing behaviours.
- Culinary nutrition education interventions (e.g., cooking classes) have shown promise as initiatives to support behaviour change and improve diet quality,[7,8] but limited information is available on *virtual* cooking class delivery. Specifically, social support has been shown to be an important outcome of in-person cooking classes[9], but the role of the social component of virtual culinary interventions is not well understand. Given that social contact is a recognized protective factor against cognitive decline and dementia,[2] it is an outcome of interest for a dementia risk reduction-focused intervention.
- Understanding ways to maintain social support in virtual cooking classes is useful to maximize program outcomes when virtual delivery is most suitable.

Objectives

This qualitative study aimed to examine participants' perspectives of the social experience in a pilot virtual offering of the Cognitive Kitchen: Culinary Nutrition Intervention to Support Dementia Risk Reduction and Living Well with Dementia.

Specific objectives of this research include:
1) Develop an understanding of the function of social interactions in the program.
2) Identify facilitators and barriers to social engagement in the virtual setting.

Methods

Setting: *The Cognitive Kitchen*

The Cognitive Kitchen (CK) is a health promotion intervention designed to support dementia risk reduction and living well with dementia. Two Registered Dietitians piloted virtual delivery of the six-session risk reduction-focused stream of the CK to two groups of adults 55 and over (n=21). The two offerings were separate but identical.

Research on the pilot CK was approved by the University of Saskatchewan Behavioural Research Ethics Board (Beh #3539).

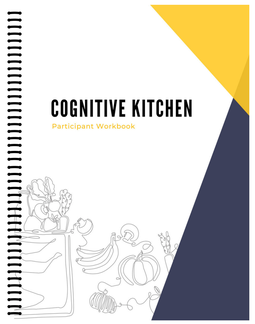
Methodological Approach: *Interpretive Description*

"Interpretive description is a meaning-making activity, directed at a particular kind of audience (such as applied practitioners) toward the purpose of rendering a new, enriched, or expanded way of making sense of some problem or issue."[10, p.192]

Data Sources

- Participant program intake information
- Session observation fieldnotes
- Participant digital journal entries (45 submissions)
- 2 focus group discussions (n=7, n=6)
- Post-program semi-structured interviews (n=15)

Findings



The virtual program was well received and the attendance rate was 83.4%. Participants described the following factors attracted them:

- **Desire to learn due to family history of dementia**
- **Interest in cooking lessons**
- **Appeal of virtual delivery**

Thematic analysis yielded **four themes** related to the social experience in the virtual CK.

Participant Characteristics

Variable (n=21)		Number (%)	
Gender Identity	Man	1 (4.8%)	
	Woman	20 (95.2%)	
Employment Status	Retired	14 (66.7%)	
	Part-time/Casual	5 (23.8%)	
	Full-time	2 (9.5%)	
Marital Status	Single	1 (4.8%)	
	In a Relationship	1 (4.8%)	
	Married or Common Law	18 (85.7%)	
	Widowed	1 (4.8%)	
Residential Area	Urban	18 (85.7%)	
	Rural	3 (14.4%)	
Age (in years)	**Average**	**Min**	**Max**
	61.7	55	70

Four Themes

*Representative participant quotes for each theme are included in the thought bubbles below.

Supporting Learning

Social components of the program such as the sharing of peer knowledge were observed to support educational content on dementia, nutrition, and culinary skills. Participants appreciated hearing about others' experiences and current practices.

Encouraging Application

The social nature of the group was suggested to encourage participation in health promoting behaviours (e.g., home cooking) by providing accountability, reduced decision fatigue, opportunities to share accomplishments, and timely feedback on recipe questions.

Trade-offs: Advantages & Missed Connections

Both benefits and drawbacks of virtual delivery were observed. Most participants described reduced barriers to attendance (e.g., due to illness, inclement weather, and caregiving responsibilities) and many enjoyed the familiarity of cooking in their own kitchen. However, one drawback was the experience of divided attention among technology, cooking, and socializing.

Ingredients for Engagement

Several factors were suggested to support social engagement in the virtual setting:

- Facilitator competencies (e.g., tech, culinary skills) helped minimize distractions.
- Preparing ingredients in advance allowed for more focus on socializing.
- Planned discussion questions were appreciated.

"... it's also nice to hear other people's experiences and what brought them to the table, and what are they doing differently that I thought 'Oh, I had never thought of that kind of thing,' right? Or what heartfelt situation maybe made them decide to make a 180 change?" -P18

"... with the group, it was like, okay, we are trying this [recipe] *because it's part of the program. So you're kind of more accountable." –P05*

"... it was nice to meet people online virtually and share what our experiences were with making the recipes... it's nice to have people in your cheering squad." –P12

"I think there's probably more pressure when you're in a group [in person] *to make it turn out well. Whereas in my own kitchen, if it didn't, I'm really the only one eating it... So that time to have kind of that... practice without the pressure. Then, I might go on to say, hey, I want to do another class in person." -P02*

"... almost every day you had everybody actually participate, which I think is a way of building community because you kind of get an idea of what everybody else is doing... I think you having a question every week was really good." –P16

Conclusion

- This pilot study was one of the first to examine the social experience in a virtual culinary nutrition education intervention.
- While certain components of social interactions were not able to be replicated in the virtual setting (e.g., eye contact, informal one-on-one conversations), several advantages were observed to enhance participation (e.g., fewer barriers to attendance, the opportunity to practice culinary skills in a familiar setting).
- Peer learning and accountability were valuable aspects of the active group environment. In particular, factual knowledge shared by participants complemented the educational component on dementia risk reduction, nutrition, and culinary techniques. Participants also felt their involvement motivated them to engage in health-promoting practices such as home cooking.
- Strategies to increase opportunities for social interactions in the virtual cooking class were appreciated by participants and several approaches were suggested to strengthen social engagement in future offerings.

Implications for Future Practice & Research

- Program facilitators should be thoughtful in planning to maximize social interactions among participants in virtual culinary nutrition education interventions.
- Pre- and post-program measures (e.g., psychosocial outcomes) may be beneficial to quantify the outcomes of virtual culinary nutrition interventions.

Acknowledgements

CIHR IRSC Canadian Institutes of Health Research / Instituts de recherche en santé du Canada
CCNA CCNV 15 Team équipe
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