Exploring Registered Dietitians' Perceptions of a New Dietary Self-Monitoring App Resembling the 2019 Canada's Food Guide: A Qualitative Study

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INTRODUCTION

- Dietary self-monitoring is critical to making and maintaining dietary changes.¹
- Current dietary self-monitoring tools can be complex and time-consuming,² leading to decreased adherence to the tools over time.³
- Traditional portion-based dietary self-monitoring tools are not easily adapted to reflect the new format of the 2019 Canada's Food Guide (CFG) based on proportions (i.e.: "the plate").

OBJECTIVES

To explore registered dietitians' (RD) perceptions and incorporate them in the development of a dietary self-monitoring smartphone app (iCANPlate), resembling the 2019 CFG.

METHODS

- Study design: Qualitative study via focus groups from July to August 2021
- **Study participants:** English speaking RDs licensed to practice in Canada
- **Recruitment methods:** Throughout Canada using Facebook and Twitter
- Procedure: virtual focus groups over Zoom (~ 90 minutes) moderated by a trained researcher and dietitian (CB) using a focus group guide.
- Focus group guide sections:
 - Perceptions of the 2019 CFG (2 questions)
 - Perceptions of currently available dietary self-monitoring tools (3 questions)
 - Suggestions for the content and features of the iCANPlate application (11 questions)

References

- Burke LE, et. al. Journal of the American Dietetic Association. 2011
- 2. Michie, et. al. Journal of Health psychology. 2009
- 3. Kirkpatrick SI, et. al. Nutrients Journal. 2018
- 4. Boeije, H. Sage publications. 2009.
- 5. Srivastava and Hopwood. International Journal of Qualitative Methods. 2009

Thematic Analysis

- Independent coding by two trained researchers (MK and RM), resolving discrepancies through consensus between the two researchers^{4,5}
- Achieving data saturation after **seven** focus group sessions
- analysis

Identified Categories (3) and Themes (10)

Motivation and support: Goal setting; Social support; Ease of use; Incentivization; No quantification

Personalization: Customizable user interface; User dashboard

Figure 2- Screenshot

of iCANPlate

Barriers of the CFG: Missing foods and serving sizes; Noninclusive; Simplistic

Barriers of existing tools: **Effort expectancy; Food** group categorization; Quantification

Dietary content on the app: Food group categorization; Serving size measurements

Facilitating features required in iCANPlate

Potential Barriers of iCANPlate

Content of iCANPlate

Main goals of iCANPlate: Achieving progress; Behaviour change; Mindfulness; Meal planning

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• NVivo12 Pro Software (QSR International, US) used for thematic

RESULTS

Education and instructions: Educational videos and recipes; **Proportion guidance**

> **Accessibility:** Various colour options; Language; Size options

> > Non-food elements: What; Where, When; Why; How; **Emotions; Health** symptoms

Different population: Different population to follow the CFG (recommended or not recommended); Suggested end-users of iCANPlate

Characteristics

Number of focus

Number of partic

Cultural backgrou White

Province of diete Ontario

Primary practice Private practi

Client group Diabetes and

Duration of pract

0-5 years

Having exper monitoring to

 Table 1- Demographic characteristics of participants

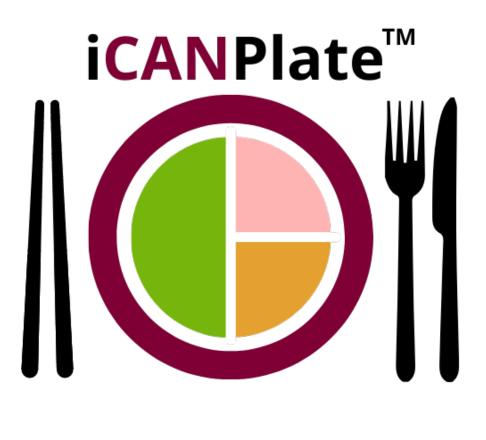
RDs are key health professionals who use the CFG to help educate the public about nutrition. Input from RDs for iCANPlate's development will enable the research team to optimize the development of a dietary self-monitoring app that helps users follow the 2019 CFG.

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s groups	7
icipants	44
bund	70%
etics practice	44%
e area ice and outpatient care	59%
l weight loss	75%
ctice	64%
rience of using self- ools with clients	82%

CONCLUSION

iCANPlate could improve adherence to dietary self-monitoring and improve efficacy of dietary self-monitoring in adults.

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