Using focus groups to identify the barriers of arthritis-related disability on food behaviours and guide future nutrition interventions

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Background and Objectives
Background: <ul style="list-style-type: none">Arthritis is a leading cause of disability worldwide.The association between nutrition and arthritis is an emerging topic; current research focuses on whether certain foods or diets can promote favourable clinical outcomes.Understanding how arthritis affects nutrition (food choices, grocery shopping, and food preparation) is critical to successfully adapting dietary interventions but remains largely understudied. Objectives: <ul style="list-style-type: none">To describe the impact of disability related to arthritis on dietary habitsTo gain insight on the incentives and deterrents to participating in a nutrition education program

Methods
Sampling: A convenience sample of 27 individuals with arthritis participated in one of four focus groups.
Data collection: Prior to focus group discussions, participants completed questionnaires on socioeconomic status, and disability (Stanford HAQ-DI). Focus groups were moderated by a dietitian and a graduate student. Audio recordings of the discussions were transcribed verbatim.
Data analysis: Data were coded using constant comparative analysis. An iterative process was used to refine and validate the coding schemes.
Results
Sample characteristics: <ul style="list-style-type: none">Mean age of 64 years (range: 35-79)81% female85.1% osteoarthritisMedian annual income: 50k-75kMean HAQ-DI was 0.25 (mild to moderate disability)
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Results (cont'd)
The steps in the process leading to food consumption were reported: (1) food choices; (2) procurement; (3) preparation; and (4) consumption. Four main recurring themes emerged: pain; fatigue; knowledge; and social support.

Table 1. Impact of arthritis on nutrition: Summary of thematic findings	
Food Choices	Several did not make intentional dietary changes due to lack of awareness (<u>knowledge</u>) Many reported making dietary “improvements” to alleviate their symptoms: <ul style="list-style-type: none">↑ fruits, vegetables, fatty fish, spices↓ meat, sugar, processed foodsCertain participants aimed for a more “balanced” diet, while others followed strict dietary rule Sources of information included friends, family, the Internet (<u>knowledge, social support</u>) Some opted for pre-made, frozen or fast food during flare-ups (<u>pain, fatigue</u>)
Procurement	Some reported no impact: <ul style="list-style-type: none">Family members assisted with grocery shopping (<u>social support</u>) <u>Fatigue</u> and <u>pain</u> were frequently mentioned barriers: <ul style="list-style-type: none">Impact on shopping frequency (increase or decrease)Recourse to online grocery shopping and delivery Grocery shopping was a valued social activity (<u>social support</u>)
Preparation	<u>Fatigue</u> was the most frequently reported barrier. Common strategies included: <ul style="list-style-type: none">Pre-made, frozen or fast foodChoosing fast recipes <u>Pain</u> limited the use of ingredients requiring preparation (ex: chopping): <ul style="list-style-type: none">Some asked family members to prepare difficult ingredients (<u>social support</u>)Few used assistive devices Strong desire to learn easy, healthy recipes (<u>knowledge</u>)
Consumption	The act of eating was not affected in most Portion size was affected in some: <ul style="list-style-type: none">A few reduced portion size for weight loss<u>Fatigue</u> and <u>pain</u> reduced appetite in others

Pain: “I think because pain stresses you out, for me anyway, I eat things that I shouldn’t be eating.”

Fatigue: “I can’t live a normal life and work a normal day. I just can’t. (...) If I have to put in a good—a hard day’s work, I’ll eat a frozen dinner because I just—there’s no way. I can’t do anything more.” (Fatigue)

Knowledge: “It’s hard to find reliable information online specifically because there’s so much stuff out there that’s not evidence based.”

Social Support: “I just use different tools now or I have my husband peel stuff and I do the chopping, stuff like that.”

Figure 2. Barriers and incentives to participating in a community-based nutrition education program

Incentives	Deterrents
<ul style="list-style-type: none">Flexible timing and registrationLow costInteractive, hands-on activityEasy, quick, and inexpensive mealsTake-home readings	<ul style="list-style-type: none">High activity costTime-intensiveLong lecture componentLack of scientific data supporting recommendations

Discussion and Conclusion
<ul style="list-style-type: none">Pain and fatigue were the most frequently mentioned challenges in the steps leading to food intake.The complexity of the relationship between arthritis symptoms and diet makes it likely that a one-size-fits-all dietary approach will be insufficient.In general, the participants’ marked interest in improving their diet quality indicates that there is much need for nutritional counselling from qualified professionals.