Sensory, texture and nutritional considerations for in-house pureed food in long-term care

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INTRODUCTION
- A common dietary management technique for older adults with dysphagia involves modifying the texture of food to a pureed consistency (Garcia, 2010).
- In-house preparation of pureed food is common in long-term care (LTC) homes (Dahl, 2007) but few standardized guidelines exist for ingredients/preparation steps used to acquire an optimum pureed product (from a sensory and nutritional perspective).
- The lack of common language used to describe therapeutic pureed food may result in varied consistency/textural outcomes, which may be important in swallowing and reducing the risk of aspiration (Penman, 1998).
- This research explores important variables for in-house developed pureed turkey and carrots, to understand qualities that may contribute to liking, ease of swallow and optimal nutrition.

Fig. 1- Pureed turkey formulated by varying meat muscle type, added liquid amount and seasoning application method

Fig. 2- Pureed carrot formulation with nothing added (C) or supplemented with a variety of added thickeners (MT, RC, SMP)

SENSORY
- There were no differences in perceived sensory attributes, between turkey muscle composition treatments ‘C’ & ‘W’ (Fig. 3 left).
- Pureed turkey with 40%/w added liquid (L) had greater perceived thickness, graininess & mouth-drying responses, than 45%/w added liquid (H) (Fig. 3 centre).
- Applying dry seasoning rub to raw turkey prior to cooking (R), was perceived to reduce the thickness, graininess and mouth-drying qualities, as compared to when seasonings were added to the food processor (NR); pureed turkey ‘R’ was also perceived to be more salty and peppery, with less turkey flavour (Fig. 3 right).
- Pureed carrots ‘MT’ was significantly more slippery and firm in texture and shiny and smooth in appearance; control carrots ‘C’ perceived to be least slippery in the mouth with more of a textured/non-smooth appearance (Fig. 4).

RESULTS

CONCLUSION
- White or combination (60% breast + 40% thigh) turkey muscle types could be used to formulate pureed turkey products; choice maybe determined based on convenience or cost.
- Small changes in liquid content resulted in significant changes in texture; pureed turkey that impart a grainy and mouth-drying mouth-feel are not optimal qualities for swallowing, therefore careful consideration must be taken of the quantity and type of liquid used to puree tough/lean meats, that would aid in obtaining a smooth and cohesive pureed consistency.
- Adding 1.6% modified corn starch (MT) to a pureed carrot recipe significantly altered the texture and appearance attributes of pureed carrots.
- In-house formulations of pureed turkey showed on average, greater protein content than commercially sourced pureed turkey.
- Consumer panel data on liking across ages and swallowing abilities as well as physical texture analysis data is needed to supplement this work.
- Future research could look at developing a quick, practical but objective measurement method to standardize pureed food textures, in a LTC setting.

NUTRITION
- In-house pureed turkey formulations had significantly higher protein content (17.948 – 20.042g protein/100g) than commercially sourced pureed turkey (11.3-16.6 g proteins/100g).
- MT pureed carrots had significantly greater carbohydrate content but lower fat content than pureed carrot treatments C, RC & SMP. Carrots with added SMP had significantly more protein than C or MT treatment.

REFERENCES
Teaching COLLABORATIVE PRACTICE

Creation of an Interfaculty Undergraduate Curriculum for Health and Psycho-Social Sciences Students

CONTEXT
- Efficient provision of care involves interdependency between professionals, patients and caregivers.
- A 2006-2009 pilot project showed relevance and feasibility of Interprofessional Education (IPE) activities in a large cohort at Université de Montréal.
- Following this pilot project, the Deans of Arts and Sciences, Medicine, Nursing and Pharmacy faculties agreed to create 3 mandatory common 1 credit courses on Interprofessional Collaboration (IPC) in Partnership with Patients and their Caregivers.
- The aim was to develop an undergraduate interfaculty IPC curriculum to prepare students to face the reality of collaborative practice in clinical settings.

METHODS
- One IPC course is included in first three years of each program.
- Course content is consistent with the 2010 Canadian Interprofessional Health Collaborative (CIHI) competencies framework.
- Each IPC course is submitted yearly to students for evaluation (individual and focus group).
- Organizational structure of IPC curriculum:
  - Interfaculty Operational Committee (IOC) includes professors of each program.
  - IOC develops, coordinates, assesses and evaluates these courses.
  - IOC is supported by a co-ordinator and an Interfaculty Students Advisory Committee.
  - IOC is supervised by a Steering Committee composed of the four deans and IOC president.

Patient as a co-educator in Interprofessional Collaboration Curriculum
- Pilot project in third year students Interprofessional workshop (fall 2011):
  - A patient partner (IP) was included in 25% of interprofessional discussion teams.
  - IP co-mediated discussion with a healthprofessional and provided feedback on how students included patient and caregivers in their interprofessional plans.
  - IP participation resulted in more systematic inclusion of patient’s perspective in intervention care plan discussion.

IPC CURRICULUM DESCRIPTION

Implementation process
- 2006-2009: Initial pilot project
- 2009: Extended pilot project
- 2010-2011: Implementation of CSS courses
- 2012-2013: Implementation of CSS courses

CSS: Collaboration en sciences santé (Healthcare collaboration)

CHALLENGES MET

Logistics
- Coordinate 10 different academic calendars
- Access to online modules for > 1000 students
- Recruit tutors (50-60 to 80) for each course
- Coordinate workloads
  - 10-20 students
  - 2-3 meetings per week
- More than 50 small classrooms needed simultaneously.

Pedagogical
- Adapt to new professional laws
- Produce up to date, pedagogical documents relevant for 15 professions
- Integrate professional in educational activities
- Include cultural diversity issues.

Management
- Adapt to varying speeds of course implementation in different programs
- No previously existing interfaculty structure
- Collaboratively manage money generated by CSS course credits.

Assessment and evaluation
- Assess students’ learnings
- Evaluate impact of IPC curriculum
- Meet Canadian Accreditation Standards for IPE (CAIPE): Accreditation of Interprofessional Health Education

KEYS FOR SUCCESS
- Strong support of Deans, University senior administration and specific resources from faculty of medicine, health and pharmacy.
- Dedication of Champions: faculties, coordinators, tech-pedagogical team, patient partners and students.
- Recruit funding: revenue generated by course credits ensuring sustainability.
- Gradual development.
- Involvement of students: representatives in the planning process.
- Openness and flexibility from professors, deans and administrative personnel.

THE FUTURE
1. Refine students’ learning assessment methods.
2. Include patient partners in workshop group
3. Include additional courses in the IPC curriculum (dentistry, pharmacy, psychology and physiotherapy)
4. Create interprofessional clinical placement
5. Train supervisors for interprofessional co-supervision and co-assessment.
EXPLORING INNOVATIVE NUTRITION EDUCATION: an inquiry to develop an engaging program for grade 7 and 8 students

A Skeoch, A Kirkham. Dairy Farmers of Canada, Mississauga, Ontario

PURPOSE:
Engaging today’s adolescents in meaningful nutrition education requires an understanding of their landscape: influencers, knowledge gaps, and effective learning strategies. Education resources must also meet the needs of classroom educators. Identifying what teachers need for successful program implementation and how technology can be used in the classroom is also necessary to consider in program development.

PROJECT SUMMARY:

Understanding young teens:
- Influenced by factors such as peer pressure, time, cravings, convenience, and taste
- Claim they know enough about nutrition and feel their eating habits are already established, so are apathetic about making changes
- Technology is their preferred way to learn, communicate, and access information

Intermediate teacher needs:
- Up-to-date nutrition education resources that are personally relevant and engaging for students, incorporate technology, and include individual choice and peer instruction components

Challenges with online education resources:
- Varying technological abilities of teachers
- Limited capacity to monitor students’ online activities
- Variable access to computers and websites across school boards in Ontario

RECOMMENDATIONS & CONCLUSIONS:
An effective nutrition education program must:
- Offer students engaging content that illustrates food and nutrition issues relevant to them and provides realistic solutions
- Use innovative strategies, including online activities and social media, as a forum to encourage peer-to-peer sharing of knowledge and experiences
- Have online lesson activities also available in hard copy to overcome variability in computer access and literacy
- Provide face-to-face training opportunities to support teachers with program implementation and provide nutrition-specific professional development
**Body mass index, waist circumference, risk eating behaviors and attitudes toward body figure in a female sample of Moncton University students [R].**


- **Introduction:** The multifactorial origin of eating disorders is well known and among the most studied risk factors are: eating behaviors, body mass index (BMI) and body thin-ideal internalization. Several studies have confirmed a high prevalence of these risk factors, particularly in adolescents and young adults, and predominantly in females.

- **Objective:** The purpose of this study was to evaluate the prevalence of risk eating behaviors and body thin-ideal internalization, and its relationship with BMI and waist circumference (WC) in female students from Moncton University in Canada.

- **Method:** A sample of 84 female students from Moncton University with a range of 18 to 30 years (X=21.2), completed self-reported multidimensional questionnaire to assess risk eating behaviors and body thin-ideal internalization. To calculate Body Mass Index (BMI), each subject was weighed and measured, as well to get WC.

**Results:** Prevalence of risk eating behaviors was 6% (mainly restrictive dieting, 27%) meanwhile body thin-ideal internalization was 29%.

For both risk factors, the analysis by BMI showed that the higher percentages were obtained for the overweight students.

<table>
<thead>
<tr>
<th>Graphic 1. Distribution of risk factors.</th>
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<tr>
<td>Risk eating behaviors</td>
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<tr>
<td>94%</td>
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<td>6%</td>
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| Without risk | with risk |

**Conclusions:** These findings are a significant contribution in the research field of eating disorders in Moncton, Canada and it must be consider in the design of new research in this topic.
NEW NATIONAL INTEGRATED COMPETENCIES FOR DIETETIC REGULATORY, EDUCATION, AND ACCREDITATION PURPOSES

PURPOSE

To develop new national integrated competencies (ICs) for regulatory, education, and accreditation purposes.

The ICs will replace three existing documents:
- Essential Competencies (Alliance of Dietetic Regulatory Bodies, 2007)
- Entry Level Competencies (Dietitians of Canada, 1996)
- Knowledge Statements (Dietitians of Canada, 1997)

PROJECT PHASES

1. Entry-level competency (job task) development with validation using a national online survey (n=2269 respondents) (September 2010 – October 2010). (See figure)

2. Performance indicators (PI) development and assignment of assessment vehicles (Canadian Performance Dietetics Registration Examination (CDRE), academic programs, internship/practicum), including a focused consultation with key stakeholders (n~180).

PROJECT SUMMARY

- The ICDEP document was released in April 2012.
- Due to project funding timelines, foundational knowledge components are in draft form and will be finalized later in 2012 following further consultation with educators.
- The ICs will be incorporated into the CDRE, education programs and accreditation standards.
- The IC document will be revised at regular intervals to ensure that it continues to capture existing and emerging competency needs for entry to practice.

CONCLUSIONS

- Through a collaborative process, the IC initiative has defined the competencies and performance indicators used to assess candidates for entry to practice to the dietetics profession in Canada.
- All dietitians in Canada should be aware of the ICs as they will underpin dietetic education and practice into the future. More information on the competency initiative is available in both English and French on the PDEP website www.pdep.ca.

Acknowledgement: PDEP acknowledges the funding support of Human Resources and Skills Development Canada and the efforts of everyone who contributed to the IC initiative.
The development of a conceptual framework to address the challenges of dysphagia management for people living in residential care

Colleen O’Leary, BSc Nutrition (4th yr) and Catherine Morley, PhD, PDT, FDC. Acadia University, Wolfville, NS (E).

**ABSTRACT**

Purpose: The purpose of this project was to develop a conceptual framework to incorporate multiple considerations in addressing dysphagia for people living in residential care.

Process or Content: The project involved a literature review, and consultations with three dietitian key informants identified as having expertise in dysphagia management. The purpose of the exploration was to acquire an understanding of the interconnected influences on nutritional status for residents living in care. Synthesis of the findings resulted in the development of a conceptual framework.

Project Summary: The literature on dysphagia management was organized into six interconnected categories: 1) texture modifications; 2) fortification; 3) increased meal frequency; 4) increased meal energy density; 5) use of oral nutritional supplements; and 6) use of oral micronutrient supplements. A seventh category was added to the conceptual framework - the contributors to residents’ nutritional status that were observed in practice but that are not yet reported in the literature. This category includes relationships and dynamics between residents requiring meal assistance and those who fed them (e.g., positive one-on-one social interaction on a regular basis), mealtime physical environments, the visual appeal and presentation of texture modified foods, and adequate staffing and time for meal service.

Recommendations & Conclusions: The challenge to success in dysphagia management is that efforts are needed in all of the interconnected aspects of dysphagia management to address and prevent malnutrition while maintaining quality of life, in residents living in care. The conceptual framework offers an organizational structure to envision the development of systems of care, individual care planning, and future research.

**BACKGROUND**

- Worked in LTC since high school; and noticed that the pureed food served to the residents was very unappetizing and that intakes were often lower than those on a regular diet.
- Wanted to find better options to stimulate senses and encourage the desire to eat.
- For Nutrition and Disease I and II, and Senior Seminar coursework, studied the literature. Aspects of dysphagia management have been studied although in a fragmented manner; the complexity of this work was not addressed in the literature.

**OBJECTIVE**

Using a progressive development design:

i. Reviewed the literature on dysphagia management with the aim of learning about optimal approaches to dysphagia management.
ii. Share findings with classmates in a formal seminar.
iii. Explore application in other course projects.
iv. Develop food product(s) for sensory evaluation.
v. Recommend comprehensive evidence-based approaches to the study of dysphagia management.

**METHODS**

- Participatory feeding of seniors at two nursing homes (Port Hope ON; Wolfville NS)
- Conducted a literature review; search terms included improving intakes; pureed food; elderly; people with dysphagia; nursing homes; hospitals; long term care; feed assistance
- Synthesized findings
- Developed a conceptual framework of the complexity of dysphagia management
- Identified products/recipes for sampling
- Conducted taste/texture evaluation with fourth year Nutrition and Disease, and Senior Seminar classmates/professors

**CONCEPTUAL FRAMEWORK**

Any approach to dysphagia management needs to consider the interconnectedness of:

1) texture modifications
2) fortification
3) increased meal frequency
4) increased meal energy density
5) use of oral nutritional supplements
6) use of oral micronutrient supplements.

**A Dysphagia Food Presentation: Pizza for an Individual with Dysphagia (for Nutrition and Disease II)**

Pizza Recipe (texture-modified)


Modified a recipe from Darlingandfarms.com

Learnings about the Diet for Dysphagia

- Challenges of minimizing aspiration risk while maximizing intake
- The key aspects: appropriate texture, acceptability of the food, and nutrition content

Thoughts on the Final Product

- Enjoyed the taste of the food.
- Succeeded in making pizza that someone with dysphagia could eat; and it tasted like pizza!

Overall Impression

- I really liked the opportunity to do a food-based project for dysphagia
- This project gave me the chance to explore the techniques of making texture modified food, and combining those findings with my own food interests

**QUESTIONS ARISING**

1) How to improve intakes?
2) How to make food better (texture and taste)?
   - Support standardized thickening approaches to improve on “stir it enough until it looks right”
3) What about the feeding environment/social atmosphere?
4) Frequent small meals or three main meals?
5) What staffing/feeding approaches result in optimal intakes?
6) Staffing implications for optimal feeding approaches?

**POSSIBLE STUDIES TO MOVE DYSPHAGIA MANAGEMENT FORWARD**

1) Redo Taylor et al., 2006; meal frequency study with adequate staff available. Due to inadequate staff it was unclear whether increasing meal frequency could have worked.
2) Using the basis of Lorefält et al., 2005. Meal density study, and apply these techniques to individuals with dysphagia. Attempt to enrich pureed food items with high energy creams and butters. This could potentially improve flavour and palatability as well.
3) Look at the effects of one-on-one social interaction and improving intakes. The Eden Alternative (2009) - specifically for those who are bed ridden or lack the ability to feed themselves.
4) Continue to look at vitamin fortification according to Adolph et al., 2009; vitamin fortification of pureed food items. Specifically working on minimizing the flavour of mineral fortification.
Health Professionals’ Perceptions of Sugars Consumption Trends
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1University of Guelph, 2Canadian Sugar Institute

BACKGROUND
- The Canadian Sugar Institute (CSI) is a non-profit, national association representing the industry on nutrition and international trade.
- CSI informs and educates Canadians about sugars and healthy eating and advocates for science-based nutrition policies.
- CSI sponsors several events held across the country, including the Canadian Diabetes Association Conference, Dietitians of Canada National Conference and Dietitians of Canada Regional Conference.

DEFINITIONS
- **Sugar** = sucrose (from sugar cane or sugar beet)
- **Sugars and syrups** (Statistics Canada category) = sugar and sugar syrups, maple syrup, and honey, but not corn sweeteners, e.g. high fructose corn syrup or glucose syrup
- **Added sugars** = all sugars added to foods, e.g. sugars and syrups, corn sweeteners, and other ingredients that act as a sweetener (e.g. concentrated fruit juice)
- **Sugars** = all monosaccharides and disaccharides

RATIONALE
- There are many misconceptions surrounding sugar consumption and its contribution to weight gain.
- Added sugars consumption has not increased over recent decades in many countries, such as Canada, Australia, UK and the US [1,2], contrary to common perception.
- Sugars (i.e. sucrose and HFCS) containing foods are targeted as key contributors in rising obesity rates. However, consumption data trends show that sugars consumption in Canada has remained stable or modestly declined over the past four decades [3]. Scientific literature also does not support a link between sugars consumption and obesity rates [4].

OBJECTIVES
- The overall purpose of this project was to determine health professionals’ perceptions of sugars consumption trends.
- Objectives were to gather users’ feedback of CSI resources and to assess dietitians’ knowledge of trends in sugars and soft drink consumption in Canada.
- Information generated will provide direction for future CSI resources.

METHODS
- From 2003-2011, conference attendees voluntarily completed CSI surveys.
- Surveys included questions on demographics, preferences for CSI resources and topics of interest and sugar-related knowledge.
- All data was analyzed using MS Office Excel 2007.

RESULTS

Respondents (n = 4478)
- Most were Ontarians (43%) and Anglophones (96%).

Professions
- Professions represented: dietitians (60%), nurses (23%), physicians (3%), pharmacists (3%), researchers (3%), and other (6%).
- All dietitians, 84% of nurses, 80% of physicians and 53% of pharmacists noted that they often discussed nutrition information with their clients.

CSI Resources
- Majority (76%) of respondents found CSI health professional resources useful, while CSI consumer resources and recipes were reported to be less useful (61% and 53% respectively).
- Top five topics of interest were: Glycemic Index, Type 2 diabetes, nutrition labelling, Dietary Reference Intakes / dietary guidelines and dental health.

Knowledge-Testing Questions
- Majority of dietitians (77%) were not aware that sugars and syrups consumption in Canada has decreased within the past four decades (Figure 1).
- Some dietitians (39%) correctly identified that 10-15% of Canadians’ total energy intake is attributed to total added sugars (Figure 2).
- Less than half of dietitians (47%) were aware that HFCS is used to sweeten most soft drinks sold in Canada (Figure 3).
- Most dietitians (70%) were not aware that Canadian consumption of soft drinks is half that of Americans (Figure 4).

IMPLICATIONS AND CONCLUSIONS
- There appears to be a need for the effective transfer of evidence based information to dietitians and other health professionals regarding sugars and trends in sugars consumption.
- In addition to dietitians, other health professionals are providing nutritional advice to Canadians; dietitians should work closely with other health care professionals to ensure that the information provided is current and correct.
- CSI should continue to develop resources for dietitians and other health professionals to use in discussions with clients relating to carbohydrates and health.

REFERENCES
1) J. Walsh, et. al July 13 2011 AJCN epub.
2) A. Barclay, et. al 2011 Nutrients, 3: 491-50.

ACKNOWLEDGEMENTS
Many thanks to the rest of the CSI staff, Sandra Marsden, MHSc, RD, Julia Di Renzo, MA, and Cathy Gill; and to all the health professionals who participated.
ABSTRACT

Objectives: The functional food industry has experienced innovative and economic expansion, yet research into consumer awareness and perceptions of functional foods and their associated health claims is limited. Older adults are particularly under-researched in this respect, and could benefit from incorporation of functional foods into their diets due to age-related issues pertaining to food and health. The purpose of this research was to identify perceived need for information related to functional foods among older adults (≥60 years old), and to assess awareness and perceptions of health claims on functional food packages. Methods: Community-dwelling older adults (n=200) completed a researcher-administered questionnaire about functional foods including current consumption, motivating factors, perceived need for information and awareness of health claims. Results: Prevalence of functional food consumption was 93.0%. An increased awareness and knowledge was the most frequently reported factor that would promote functional food consumption (85.5%). Related to this, 63.6% of participants indicated that they needed more information about functional foods with preferred sources being newspapers/magazines/books (68.5%) and food labels (66.1%). When asked about health claims on functional food packages, 93.5% of participants indicated that they were aware of them and those with more education were more likely to report being aware (p=0.05). Implications and Conclusions: Although functional food consumption among this sample of older adults is high, there is a need for further information regarding functional foods. These results provide information for RDs and other stakeholders to inform development of strategies to promote health among older adults through consumption of functional foods.

METHODS

• A total of 200 community-dwelling older adults (≥60 years of age) were recruited. Exclusionary criteria included use of meal-assisted services or cognitive dysfunction.
• Participants completed a researcher-administered questionnaire designed to collect quantitative and qualitative information about functional foods including current sources of information for functional foods, need for more information pertaining to functional foods, and awareness, perceptions and understanding of health claims on functional food products. Lifestyle, medical and demographic information was also collected (REB#1055012).
• To increase the participants’ awareness of key concepts examined in the study questionnaire, participants were presented with information sheets that established the definition of functional foods, nutrient content claims, nutrient function claims and disease risk reduction claims.

RESULTS

Participant Characteristics

The mean age of the 200 participants was 70.8 ± 7.17 years old. Participants were predominately female (70.0%), Caucasian (95.0%), had a college/university degree (67.0%) and had an annual household income of $250,000 (60.8%).

The prevalence of functional food consumption among participants was 93.0%.

Information Related to Functional Foods

• An increased awareness and knowledge about functional foods was the most frequently identified factor that would increase functional food consumption (85.5% of participants).
• 56.5% of participants reported that they actively seek out information about functional foods.
• 56.5% of participants reported that they actively seek out information about functional foods.

• Information about health benefits (28.4%), bioactives (15.8%) and risks/adverse effects (14.2%) were the most frequently reported types of information participants would like to receive about functional foods.
• The majority of participants (93.5%) reported that they were aware of health claims present on some food labels, and participants with a higher level of education were more likely to report being aware of health claims (p=0.05).

FUNDING SUPPORT

This research was funded by the Canadian Foundation for Dietetic Research (CFDR). Meagan N. Vella was a recipient of a NSERC scholarship.

Figure 1. Current and preferred sources of information about functional foods expressed as the percent of participants (n=200) who selected the identified source of information from a list. “Printed materials” refers to newspapers, magazines and/or books.

Figure 2. Nutrients that, if mentioned in a nutrient content claim on a functional food product, would increase participants’ consumption of the product (n=200).

Figure 3. Disease areas that, if mentioned in a disease risk reduction claim on a functional food product, would increase participants’ consumption of the product (n=200).

Table 1. The top five functional/biological roles that, if mentioned in a nutrient content claim on a functional food product, would increase participants’ consumption of the product (n=200)
An In-depth Analysis of the Workforce Characteristics of Registered Dietitians in Ontario

Research Team: Andrea Miller, Ellen Vogel, Raisa Deber, Brenda Gamble, Kanecy Onate
Research Partner: College of Dietitians of Ontario, Mary Lou Gignac, Registrar

Background
There is a paucity of information regarding workforce characteristics of registered dietitians (RDs) in Ontario. Knowledge of demographic, education and practice settings will provide essential information for professional and policy decision-makers regarding the future of the profession.

Research Goal
To examine the workforce characteristics of RDs in Ontario from 2003-2009, to identify trends related to age, area of practice work setting, employment status and education.

Methods
RDs are required to register annually with the College of Dietitians of Ontario (CDO). CDO data for 2003-2009 were merged on a unique identification number. The analysis was conducted on this retrospective longitudinal database; based on 3178 RDs. Trends were analyzed over time for age distribution, education, area of practice and work setting.

Results
The RD workforce in Ontario grew from 1919 in 2003 to 2525 in 2009 (increase of 31.58%).

The largest proportion of RDs with graduate level education was found in those over 60 years of age (26.3%) only 3.36% of the RD workforce. The fewest RDs with graduate level training were between 40 and 59 years of age (16.48%).

Conclusions
Understanding the demographic variations in mid-career RDs is essential for succession planning for the profession. Further research with RDs aged 40-59 years is critical to the understanding of facilitators and barriers to graduate-level training as well as to the understanding of shifts in the RD workforce within this age cohort.

Number of RDs working in Government/Public Health (GO/PH) settings, by age group

Over half (53.2%) of the RD workforce in Ontario is between 40 and 59 years of age. RDs are working longer- the proportion of RDs aged 60 years and over increased from 1.26% in 2003 to 5.03% in 2009.

The proportion of RDs working in LTC/CCAC was consistently highest in the 40-49 age group, and lowest in the under 30 and over 59 age groups.

Funding: CIHR Team Grant in Community Care and Health Human Resources
Evolving Online Nutrition Education: Lessons Learned from a Web-Based Preschool Nutrition Course

B McVegh, Dairy Farmers of Canada, Mississauga, Ontario.

Purpose:
To improve GB’s online nutrition education experience and to determine how it can meet the professional development needs of CPs.

Process:
Phase 1: From Spring 2009 to Winter 2010, an online survey with Early Childhood Education professors and students identified technical and content-related course improvements.
Phase 2: CPs working in the field piloted the course in 2009 and participated in an online survey and qualitative focus groups to inform us about their learning needs, their reaction to online learning, and the course’s appropriateness as a professional development opportunity.

Project Summary:
Professors, students and CPs agreed that the course:
- Made valuable nutrition information easily accessible
- Allowed them to participate at their own pace
- Appealed to different learning styles and technical competency levels
CPs felt the content provided real-life scenarios relevant to their work, and they appreciated a limited time frame and certificate upon completion.

Recommendations & Conclusions:
Factors to consider for online learning:
- Provide navigation options that are flexible
- Use a variety of robust technological teaching tools (e.g., interactive slides, activities, and videos; forums for questions and discussion; links to resources for ongoing support; and online quizzes to assess learning)
- Ensure user friendliness: simplify language, include an audio component, use images in place of text, and subdivide content

Effective online nutrition education:
- Standardizes and increases access to learning opportunities
- Addresses relevant and current issues in the field
- Includes multiple interactive components to engage all types of learners

What is Good Beginnings?
Good Beginnings (GB) is a free online preschool nutrition course developed by Registered Dietitians, providing CPs with a practical, flexible, and free professional development opportunity.
# The Complexities of Sex/Gender Composition in the Dietetics Profession: Implications for Recruitment

D Lordly, EdD (c), PDT  
Mount Saint Vincent University

## Background

Dietetics is a female-dominated profession. Canadian workforce analysis reports indicate from 0-5% of the provincial membership are male dietitians. While US recruitment efforts including mentoring programs, career counselling, academic advising and presentations have been undertaken to target male recruitment, males still remain a minority within the profession. No Canadian research could be found exploring this area of study.

## Research Purpose

Based on the perceptions that students enrolled in dietetics programs held regarding sex and gender composition and the dietetic profession, the work describes the assumptions and stereotypes held by this group that come to bear on conversations concerning changing the sex composition within the profession. Findings can inform professional recruitment strategies.

## Method

An exploratory descriptive survey method was used to collect data from seven dietetic programs across Canada. The in-person or online survey was administered to first and fourth year nutrition students.

Questions asked:
1) Why weren’t more males choosing a dietetics career?
2) What impact would an increase in males have on the profession?

Data were subjected to content analysis.

The ratio of male and female respondents was consistent with current professional ratio’s.

## Limitations

The way in which the questions were asked could have accounted for the prominent hetero-normative responses held by participants. However, given the many stereotypes and assumptions and beliefs that surfaced, further research to explore masculinities/femininities, homophobia and sexism is warranted.

## Results

**Perspectives on Why More Males Do Not Enter the Dietetics Field**

One overarching category: the gendered nature of the profession

- Dietetics is perceived to be a stereotypical female profession

Societal views hold gendered stereotypes in place

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<th>Loss of sex status</th>
<th>If a guy is in dietetics other people will say he is homosexual</th>
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<tr>
<td>Dietitians are perceived having lower status in the healthcare hierarchy</td>
<td>A lot of men don’t want to be positioned as being somewhat like a nurse (men pursue medicine)</td>
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<tr>
<td>Females are seen to be more preoccupied with their bodies</td>
<td>Men don’t care enough about their eating habits as women</td>
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There is a lack of male role models

- “School counselors in high school portray it as a female career”

- Females possess certain innate characteristics like caring and empathy that men do not

...and yet, studies have shown that gay men are equally if not more preoccupied with their bodies than women

## Limitations

Some expressed regret...

- Unfortunately, I think probably people will respect the profession much more

## Professional Status

- “Dietetics would be viewed as more prestigious, more respected”
- “We would be taken more seriously”

“...It would only be an increase in heterosexual males that would challenge and breakdown the existing stereotypes. A small number, saw the changes as detrimental leading to increased competition between males and females. Women would be ‘pushed out.’"”

## Professional Diversity

A belief exists that males would bring a different perspective

- “If more males enter the profession, younger males may see it as a more visible career”
- “We can learn from each other”
- “Male dietitians would seem more relatable to male clients”

## Breakdown of Gendered Stereotypes

- “I think as women we are expected to want men to also enter the field. We see it as a lack of something or something that needs fixing. I am fine with the absence of men”

## Key Questions

- Where do we stand individually and as a profession on increasing sex/gender diversity in the profession?
- When we talk gender do we mean sex? If so, do we ever really get to conversations about gender? What are the implications of this?
- What messages intended/unintended do we send through our current promotion of the profession?
- How does that portrayal influence who is attracted/not attracted to the profession?
- What are the risks/benefits of remaining/not remaining female-centric?
- Can we meet our professional obligations given the current professional sex/gender distribution?
- Will targeting particular professional areas considered more appropriate for males e.g., sports nutrition, create a gender/sex divide and division of labour?
- Do we really need to recruit more males in order to create a more credible profession?

“...it would help the profession to be taken more seriously instead of seeming like only skinny Caucasian women who likely had eating disorders or issues surrounding food are doing out advice.”

## Relevance to Practice

- Recruitment based on sex alone and not masculinity would be incomplete and most likely ineffective.
- If a targeted recruitment campaign were to be initiated, the profession needs to establish what the specific aim(s) of increasing the number of male dietitians would be.

## Conclusion

- Attitudes and practices from within and outside the dietetic profession can influence career choice as well as influence how recruitment strategies are approached.
- What is said and not said with respect to student perspectives on males and masculinities within the profession suggests unless there is a clear vision of what the overall aim of the strategy is, recruitment efforts may not be successful.

Further research into the complex and interrelated issues associated with both sex and gender as they relate to professional composition is warranted.

“The program, society’s view of dietetics and career options would all have to change before men would enter the program”

## References

**Nutritional Assessment Following Stroke: What Is Used Clinically?**

Lauren Peters MScFN (c) RD1, Colleen Gobert PhD RD1, Isabelle Giroux PhD RD1, Robert Teasell MD2, Norine Foley MSc RD1,2

1 Division of Food and Nutritional Sciences, Brescia University College at the University of Western Ontario, London, Ontario
2 Aging, Rehabilitation and Geriatric Care Program, Lawson Health Research Institute, Parkwood Hospital site, London, Ontario

**ABSTRACT**

**Background and Objectives:** Malnutrition has a significant negative impact on functional recovery following stroke. The 2010 Canadian Best Practice Recommendations for Stroke Care (CBPRSC) recognize the need for nutrition assessment following stroke by stating that patients who are at risk of malnutrition should be assessed using valid tools/measures. The objectives of this study were to determine i) if registered dietitians (RDs) are using tools with established validity and reliability to assess the nutritional status of patients admitted to hospital following acute stroke, and ii) if not, what assessment methods are used. **Methods:** Canadian healthcare institutions admitting high volumes (≥100/year) in the years 2008-2009 of acute stroke patients were included. RDs at these sites were then contacted and invited to participate in an online survey. **Results:** 124 high-volume stroke centres were identified by the Canadian Stroke Network. As of September 2011, 85 RDs had completed the survey. Stroke accounted for an average of 30% of their caseload. Twenty-nine respondents (34.1%) specified that they used an assessment method with known validity and reliability (Subjective Global Assessment and/or Mini Nutritional Assessment); however, only 11 respondents (12.9%) reported using the original (non-modified) version of the tool. Of the 51 RDs who did not use a previously validated method, their nutritional assessments were based primarily on subjective weightings of anthropometric, biochemical and/or dietary data. Sixty-four RDs (78%) indicated that they believe it is important to use assessment methods that have been formally validated. **Conclusion:** Despite being identified as important by RDs, preliminary results from this national survey suggest that assessment of nutritional status following acute stroke is conducted using non-validated tools.

**OBJECTIVES**

To determine i) if RDs are using tools with established validity and reliability to assess the nutritional status of patients admitted to hospital following acute stroke, and ii) if not, what assessment methods are used.

**METHODOLOGY**

• 124 Canadian healthcare institutions admitting high volumes (≥100/year in the years 2008-2009) of acute stroke patients were identified.
• Institutions were contacted in order to gather lists of potential participants.
• At least five attempts were made to contact each potential participant.
• RDs were considered eligible if their caseload included patients recovering from acute stroke and they provided consent.
• The survey was designed, pilot-tested, translated into French and both versions were administered online using SurveyMonkey®.

**RESULTS**

As of September 2011:
• 93/124 institutions had been contacted; 71/93 (76%) agreed to participate.
• 86 eligible RDs agreed to participate; 85/86 (99%) submitted surveys.
• 29 RDs (34%) indicated that they use a previously validated tool to conduct an assessment (Table 1).
• The remaining 56 RDs (66%) reported using various combinations of nutrition-related parameters to conduct an assessment (Table 2). These assessments were based primarily on a subjective weighting of patient data (Table 3).

**CONCLUSIONS**

• Although 78% of RDs believe it is important to use valid assessment methods, no published validation studies within the stroke patient population could be found for any of the reported methods.
• As evidence-based practice supports the use of valid and reliable assessment methods, further research is needed to validate one or more of the reported methods/tools within this population.
• Adopting a standard, valid approach to nutrition assessment at the national level has the potential to positively impact stroke care and the dietetics profession (e.g. improved ability to aggregate national data, etc.).

Funding for this study was provided by Brescia University College and the Canadian Stroke Network.

Sincere thanks to our research assistants Justine Horne, Sarah Donaldson and Kristine Beaulieu.
Exploring the Use of the Community Gardens by the Karen Community in London, ON

K McComb1, H Thomas2, L Davies2, C Gobert1.

1Division of Food and Nutritional Sciences, Brescia University College, Western University, London, ON
2The London Community Resource Centre, London, ON.

ABSTRACT

Objectives: The use of community gardens is associated with numerous health benefits. Research suggests gardening has added value to immigrant populations as it enables them to express their ethnic identity and maintain their cultural values. The purpose of this study was to investigate the influences that motivate the gardening practices of the Karen Community, an ethnic group from South East Asia.

Methods: Through in-depth interviews, 6 Karen Community members shared their perspectives regarding gardening practices that serve in maintaining their Karen culture and the barriers and facilitators involved with the utilization of the gardens located in London Ontario. The data were transcribed verbatim and analyzed inductive content analysis. Results: Five main themes emerged from the data: 1) Facilitation of health benefits 2) Maintaining cultural values 3) Promotion of social engagement 4) Improving garden productivity and 5) Barriers to healthy living in Canada. The gardeners stated improved access to lower cost, culturally appropriate fruits and vegetables and increased physical activity as primary reasons for gardening.

Implications & Conclusions: The results of this study are consistent with previous literature, suggesting that the use of community gardens is associated with many health benefits including enhanced nutrition.

BACKGROUND AND OBJECTIVES

- Community gardens are gaining popularity as being an effective nutrition strategy to increase the fruit and vegetable intake of their participants, which are often low-income families and immigrants (Armstrong, 2000, McCormack et al., 2010, Hyman et al., 2002).
- Research suggests that community gardens have added value to immigrant populations, as they provide them with unique opportunities to maintain their cultural heritage by enabling them to cultivate, preserve and prepare culturally appropriate foods for them and their families (Wakefield et al., 2007, Glover et al., 2005).
- The Karen community, originally from Burma, is particularly enthusiastic about utilizing the gardens in London, Ontario (Davies, 2010). It is theorized that access to community gardens enables the Karen community to maintain their cultural heritage while living in Canada. This study aimed to explore this premise by investigating the influences that motivate gardening in the Karen Community.

METHODS/DESIGN

- Three Community Garden sites in London, Ontario, that are frequently visited by Karen Community Members were targeted for recruitment.
- Data was collected using in-person in-depth interview sessions facilitated by a semi-structured interview guide.
- Four of the six interview sessions were conducted through translation, as many of the participants were not proficient in English. The interview sessions were digitally recorded and transcribed verbatim by a professional transcriber.
- Inductive content analysis as described by Patton (2002), was utilized to analyze, code, and categorize emerging themes.

FINDINGS

There were five primary themes that emerged from the data regarding the use of the community gardens by the Karen Community.

1. Maintaining Cultural Values

Gardening is a longstanding tradition for the Karen immigrants. All of the participants stated that they started gardening at a young age in Thailand or Burma. The foods the participants grew in the community garden plots in London, Ontario were traditional foods that they cultivated back in their original countries.

2. Improving Garden Productivity

- Limited water source (n = 2)
- Vandalism by youths (n = 1)
- Plot size and availability (n = 2)
- Damage to garden by animals (n = 1)

3. Barriers to Healthy Living in Canada

- Improved nutrition: Most participants (n=5) noted gardening increased their access and intake of fresh, nutritious foods.

   “Growing vegetables is really a benefit for us. Instead of buying it we just take it in our garden and it’s also without chemical[s] and we can eat fresh as well...like after we cut it and then we just go home and cook.”

- Economic benefits: All of the participants (n=6) indicated that gardening provided them with substantial cost savings over purchasing produce.

- Improved mental and physical health: Two participants mentioned that gardening improved their sense of well-being. All participants noted the significant impact gardening had on their physical activity level.

   “If we don’t do the garden and we can’t take any exercise, this is like the main exercise for us because we were the farmer [in our home countries].”

4. Facilitator to Health Benefits

- Improved Social Interactions

   “There is benefit for us, for our community and friends and neighbours as well because sometimes we can’t eat [all of the food we grow]. Usually we give [vegetables] to them and they were really happy because they cannot find some [vegetables] here.”

SUMMARY and CONCLUSIONS

- The results of this study implicate gardening as a potential strategy to maintain and/or improve the health of immigrant populations.
- These results add to the literature supporting the benefits of community gardens in the lives of immigrant gardeners.

AWKNOWLEDGEMENTS

Funding for this project was provided by Brescia University College and the London Community Resource Centre. The researchers are grateful to the research participants and volunteers.
Fundraising with CRUNCH!

Project Goal:
- To support school nutrition policy initiatives and create revenue to support class trips, school equipment purchases, special events and projects, programs and other general school activities.
- To increase the amount and variety of vegetables consumed by school children, their families and communities.
- To benefit local farmers by encouraging school children, their families and communities to purchase locally grown Manitoba vegetables.
- To raise awareness of and promote sustainable food attitudes and practices, which improves the health of students, their families, school personnel and community partners.

How It Works:
1. School fundraising coordinators visit the website at www.farmtoschool.org and call for a program overview and email address.
2. Schools download and copy all materials.
3. Students take orders and collect money from families, friends & other customers.
4. Schools submit total and prices orders, with payment, via Peak of the Market.
5. Peak of the Market confirms delivery and processes orders. (Orders are processed at the website.)
6. Schools coordinate student, parent and staff volunteers to unload, distribute and load vegetables.
7. Volunteers sort and bundle vegetables into reusable bags for customers.
8. Vegetable orders are delivered to or picked up by customers.
9. Customer must eat and cooking with their fresh vegetables! Delicious recipes and tips are available on the Peak of the Market website.
10. As class time permits, educators are able to link this nutrition-friendly, fundraising activity to their lessons, using teaching resources from the project website.

Product and Prices:
- Peak of the Market provides vegetables at cost.
- Customers choose vegetable “bundle A” or vegetable “bundle B.”
- Bundle A (the American) includes 3 lbs of carrots, 3 lbs of onions and 5 lbs of red peppers. Sells for $10.00.
- Bundle B (the Big Value) includes 8 lbs of carrots, 3 lbs of onions, 11 lbs of red peppers, 1 lb of peas and 1 bag cabbage. Sells for $20.00.
- Schools keep 50% of funds raised from all vegetable sales as profit.
- The remaining 50% is paid to Peak of the Market.
- Cost of vegetable delivery and environmentally friendly bags is included.

Fundraiser Results:

2010 (Pilot)

- 96 schools participated
- $3,053 bundled sold
- $320,500 in revenue generated for the schools
- $10,000 lbs of Manitoba vegetables sold

2011

- 250 schools participated
- $4,169 bundled sold
- $767,100 in revenue generated for the schools
- $14,200 lbs of Manitoba vegetables sold

Conclusions: A Win/Win/Win proposition!

- Fund-raising groups keep 50% of revenue generated.
- Schools have an activity to support their nutrition policy.
- Educators have a great activity to link to curriculum.
- Students, their families & communities get to eat and cook with fresh vegetables at a great price.
- Manitoba producers have another way to sell their locally grown vegetables.
- Manitoba teachers benefit for participation in this local, sustainable food system.
- This Farm to School fundraiser project meets its goal of generating revenue mapping local vegetable producers, and raising awareness of the importance of vegetables as part of healthy eating.

Rave Reviews for Farm to School

“It was great, well organized, great food, everything was very useful and easy.”

“We love the fundraiser because it is so easy to run and so simple for families to understand.”

“Wow! It went off without problems and was so appreciated by parents.”

For more information or to be involved, contact: [Contact Information]

This project is supported by the Government of Manitoba under the Manitoba Healthier Communities Grant program. Thank you to all of the participating schools.

Page 1
Minding Our Bodies
Healthy Eating and Physical Activity for Mental Health

Why We Do It
People with mental illness face barriers to recovery

Food Insecurity  Chronic Disease  Weight Gain  Stigma  Social Exclusion

What We Do
We build community capacity to deliver effective programs

Collective Kitchens  Community Gardens  Physical Activity Programs  Nutrition and Life Skills Education

How We Do It
We provide resources and promote collaboration

Knowledge Exchange  Peer Support  Community Partnerships  Health Professional Education  Funding

www.mindingourbodies.ca
Answering practice-based questions: demystifying systematic literature reviews

T Marcoux*, K Loney. Bariatric Regional Assessment and Treatment Centre (RATC), Health Sciences North, Sudbury, Ontario. [E]

The emergence of bariatric nutrition and the opening of the RATC in Sudbury present several firsts; consequently there remain several practice-based questions to be answered. A systematic literature review is a structured process to gather and critique research to inform practice. As clinical dietitians unfamiliar with this process, dietetic interns were assigned to examine the evidence while dietitians provided support as research preceptors.

• A preliminary literature search on conducting systematic reviews was completed.
• Experts in the field were consulted.
• Resources were reviewed for their usefulness for educating and guiding the interns’ learning process.
• Information determined to be useful was documented ensuring the process could be utilized by future interns or dietitians to answer similar practice-based questions.

The steps taken to initiate the systematic literature review included:
1. choosing a specific research question using PICO
2. selecting key search terms;
3. identifying inclusion and exclusion criteria;
4. selecting databases;
5. considering methods of collecting grey literature;
6. saving or recording the search strategy and references;
7. choosing appropriate evidence grading checklists.

A final recommendation from our interns: “it is valuable to spend time developing a strong research question and specific search terms to lay a solid foundation for your research”.

www.nosm.ca  www.hsnsudbury.ca
NUTRITION EDUCATION GOES “VIRAL”: the process used to encourage grade 5 students to share bone-health learnings online


**Power4Bones** is an award-winning web-based bone-health program for grade 5 students.

**PURPOSE:**
To leverage the popularity of peer-to-peer “viral” online information sharing by creating an online activity to encourage Power4Bones participants to share bone-health knowledge with friends who did not participate.

**PROCESS:**
A web-based challenge was designed to extend the learning outcomes of Power4Bones. Data was collected from grade 5 students who had not participated in the program.

**Phase 1:** Students (n = 12) participated in focus groups to test the activity’s initial concept in March 2011.

**Phase 2 and 3:** Online sessions with students in June 2011 (n = 181) and October 2011 (n = 222) tested more fully developed versions of the challenge, collected data on challenge usage, and measured knowledge pre- and post activity with online surveys.

**PROJECT SUMMARY:**
Data collected identified the challenge’s strengths and weaknesses in meeting learning objectives, and resulted in improvements to:
- Design features, user tools, the scoring process, and peer-sharing components
- Appeal, engagement, viral sharing, and learning outcomes.

Pre- and post-use surveys indicated bone-health knowledge increased after completing the challenge.

**RECOMMENDATIONS & CONCLUSIONS:**
Allocate time and budget to gather and incorporate target group feedback throughout the development process.

Power4Bones’ web-based challenge increased students’ bone-health knowledge; peer-to-peer sharing of this activity can spread bone-health knowledge to a larger audience.

Because viral sharing is a relatively new approach to nutrition education, the effectiveness of this web-based challenge will be monitored closely.
ABSTRACT
Bone health complications due to HIV infection and anti-retroviral therapy have become growing issues in HIV-infected patients. Vitamin D deficiency is a risk factor for bone disease, and data on the prevalence of Vitamin D deficiency in the HIV population is lacking in Canada. Objectives: To determine the prevalence of vitamin D deficiency and associated demographic, clinical and lifestyle risk factors in HIV-infected patients attending the Positive Care Clinic (PCC). Methods: This study was a retrospective, cross-sectional chart review of HIV-infected patients (n=128), ages 18-65 years, who attended the PCC between September 2009 and March 2010 and had their serum 25-hydroxy vitamin D (25(OH)D) analyzed. Patients who were pregnant or receiving hemodialysis were excluded. 25(OH)D level < 75 nmol/L was considered to be insufficient and serum 25(OH)D < 25nmol/L was considered deficient. Associations between secondary variables and vitamin D status were analyzed, and predictors were included in multivariate logistic regression. Results: The prevalence of vitamin D insufficiency and vitamin D deficiency were 78.9% and 16.4%, respectively. Non-Caucasian skin color (OR: 3.467, P=0.022) and not taking a vitamin supplement (OR: 7.764, p<0.001) were independent risk factors for vitamin D insufficiency. Conclusions: This study confirms the high prevalence of vitamin D deficiency among HIV-infected patients attending an urban Toronto outpatient clinic and suggests that those who are non-Caucasian or not taking a vitamin supplement are more likely to have low vitamin D status. Further study is needed to determine the effects of vitamin D supplementation.

BACKGROUND
• The use of combined antiretroviral therapy (cART) in North America has increased life expectancy of HIV-infected individuals.
• As HIV infection becomes a chronic disease, HIV positive individuals are facing conditions more prevalent in aging populations.
• Bone demineralization due to HIV infection and cART medications has become a growing issue in HIV-infected patients.
• A high prevalence of vitamin D deficiency, a risk factor for bone disease, has been reported among individuals with HIV infection.
• Definitions of vitamin D deficiency are variable, but there is growing consensus that 25(OH)D > 75 nmol/L is associated with improved health outcomes.
• Vitamin D status among HIV positive individuals has not been examined in Canada.
• Previous studies were limited by small sample sizes and several included only male subjects.
• Identifying the prevalence of vitamin D deficiency and associated risk factors may inform future screening practices and clinical guidelines for vitamin D supplementation.

OBJECTIVES
1. To estimate the prevalence of Vitamin D deficiency in HIV-infected patients attending the Positive Care Clinic at St. Michael’s Hospital.
2. To examine the associations between vitamin D deficiency in HIV-infected patients and demographic, clinical and lifestyle variables.

METHODS
Study Design: Cross-sectional, retrospective chart review
Inclusion Criteria: HIV Positive Diagnosis
Blood sample collected for 25(OH)D analysis between Sep 2009 & Sep 2010
Between 18 and 65 years
Exclusion Criteria: Pregnancy
Hemodialysis

Vitamin D Deficiency Definitions:
Insufficient
Serum 25(OH) D <75 nmol/L
Deficient
Serum 25(OH) D <25 nmol/L

Data:
• Collected September 2009 to March 2010
• Multivariate logistic regression was used to assess associations between secondary variables and vitamin D status

RESULTS

Table 1: General Subject Characteristics (n=128)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>73.4</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>26.6</td>
<td></td>
</tr>
<tr>
<td>Skin Colour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Caucasian</td>
<td>52.3</td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>47.7</td>
<td></td>
</tr>
<tr>
<td>Mean Age</td>
<td>42.9</td>
<td>± 9.3 years</td>
</tr>
<tr>
<td>Median Years since HIV Diagnosis</td>
<td>5.6 (1.2-10.1) years</td>
<td></td>
</tr>
<tr>
<td>Median Years since HIV Diagnosis</td>
<td>5.6 (1.2-10.1) years</td>
<td></td>
</tr>
<tr>
<td>Viral Load</td>
<td>71.7%</td>
<td>Undetectable viral load</td>
</tr>
<tr>
<td>Use of Antiretroviral Therapy</td>
<td>76.6%</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Backward Wald multivariate logistic regression analysis of vitamin D insufficiency as the dependent variable

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>OR</th>
<th>CI</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Caucasian</td>
<td>3.467</td>
<td>(1.198, 10.030)</td>
<td>0.022</td>
</tr>
<tr>
<td>Taking Multivitamin/ Vitamin D Supplement</td>
<td>7.764</td>
<td>(2.790, 21.609)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Table 3: Prevalence of Vitamin D Deficiency Among HIV Positive Outpatients

<table>
<thead>
<tr>
<th>Serum 25(OH)D (nmol/L)</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 25 nmol/L</td>
<td>78.9%</td>
</tr>
<tr>
<td>25-75 nmol/L</td>
<td>21.1%</td>
</tr>
</tbody>
</table>

CONCLUSIONS
• Univariate logistic regression analysis revealed that several factors were significantly related to vitamin D insufficiency, including age (p=0.052), non-Caucasian skin color (p=0.022), “other” income support (Ontario Disability Support Program, Ontario Drug Benefit Plan, Ontario Works and Interim Federal Health Program) (p=0.024), viral load greater than 50 copies RNA/mL (p=0.043), and supplementation with vitamin D or multivitamin or both (p=0.001).
• Further analysis of these variables using Backward Wald multivariate logistic regression (Table 2) revealed that skin colour and vitamin supplementation remained as independent predictor variables for vitamin D.
Anemia is a widespread problem in the developing world. The etiology of anemia is complex with many factors other than ID contributing to the global burden. The extent to which these other factors contribute to the etiology of anemia is not well understood.

**Objectives**

- To assess predictors of anemia, ID, and IDA among young children living in Kampong Thom, Cambodia.

**Methods**

- Part of a larger study which included 4 other provinces.
- Children (n= 767) aged 6 – 59 months were randomly selected using 2-stage cluster sampling.

**Data Collection**

- Demographic & illness data; weight & height measurements.
- Hemoglobin (Hb), mean cell volume (MCV), ferritin (Ft), soluble transferrin receptor (sTfR), retinol binding protein (RBP), C-reactive protein (CRP), and presence of malaria.
- Stool samples were collected to examine the presence of parasites.
- Anemia defined as Hb <110g/L; ID defined as abnormal values for Ft (<12 µg/L), sTfR (> 8.5µg/L), and MCV (<77fl for <2 years and <79 fl for > 2 years); and IDA defined as ID plus anemia (Hb <110g/L).

**Data Analysis**

- Multiple linear and binary regression to determine relationships among variables.

**Results**

- High prevalence (57%) of anemic children.
- 39% and 27% of all children had ID and IDA, respectively.
- 84% of anemic children had ID, suggesting that ID played a major role in the etiology of anemia.

Funding provided by World Vision.

**Discussion**

- Anemia is a serious public health concern among young children in Kampong Thom, Cambodia.
- The etiology of childhood anemia is complex and major contributors includes age < 24 months, ID, VAD and infection.
- Challenges include defining cut-off values for anemia, and methods used to define ID and IDA.
- Results may guide future programs and interventions combating anemia and ID, especially among female children < 24 months of age.
- Future research should evaluate the effect of diet on the etiology of anemia, ID and IDA.
Beyond clinical walls: Hamilton farmer's market lunch and learn cooking demonstrations

Kate Park, MAN, RD; Barbara Cantwell, MHS, RD. Hamilton Family Health Team (HFHT), Hamilton.

Purpose
To create a supportive environment in which individuals without access to RD services explore healthy eating and chronic disease prevention through recipe demonstrations, discussion and sharing.

The opening of the new community kitchen not only provides the opportunity and space to educate current FHT patients but also reaches individuals that do not have access to these resources.

Content
- The cooking demonstrations are an open collaboration between the Hamilton Family Health Team and Hamilton Farmer’s Market starting in April 2011.
- The program was developed based on a growing interest in local foods and an identified need for basic cooking skills within the health team’s clients.
- The HFHT RD facilitator plans and implements sessions, using locally available foods.
- Participants enjoy free samples and receive recipes and resources to practice healthy eating at home.
- Each session integrates nutrition education and engages clients in discussion and inquiry through the demonstration.
- Participants feedback generates topics for future classes.
- The program is promoted through media campaigns.

Benefits of the open collaborative
- Minimal Cost To Healthcare: Market pays for supplies and offers Non-Profit Cost For Center.
- Open to Everyone: not just rostered FHT clients, reaching those without doctors and those that rarely attend the doctors (e.g. teens).
- Patient Interest Driven: Feedback after classes is used to develop future topics.
- Providing clients with tools they can apply at home.
- Encouraging use of local foods and supporting local vendors and farmers.

Benefits of media campaigns
- Featured on local cable channels.
- Increased exposure and recognition for the FHT and Farmer’s Market.
- Rapid increase in attendance at session.
- Development of new opportunities (classes now offered at Fortinos).

Things to Consider
- Providing training or encourage culinary and media skills in dietitians.
- Initial cost in time and money to develop program and campaign can be high.
- Space availability and location can be a challenge to find.

Project Summary
- The Program has expanded rapidly. Currently, it runs monthly with an average of 12 clients per session (maximum 28).
- The program has also opened up into evening programs at local grocery stores.
- Program is open to FHT clients and community members at no cost.

Recommendations and Conclusions
Overall the cooking demonstration program has been a valuable addition to the HFHT’s patient education programs. It has opened up the opportunity to access difficult populations to reach, provide applicable nutrition knowledge to patient, encourage local eating, support local vendors and sell at a minimal cost to the healthcare system. The use of media campaigns has greatly accelerated the success of this program and increased the recognition of the FHT in the community.

Next steps: the program is sustainable now; the program will be reviewed to see its effectiveness in augmenting clients’ application of knowledge.

Acknowledgements
We extend our appreciation to the HFHT Nutrition Program Team and the Hamilton Farmer’s Market for all of their support with this program and its development.
Preliminary data on infant feeding intention compared to practices of women at 2-months postpartum

S Atwal\textsuperscript{1,2,4}, I Giroux\textsuperscript{2}, S-M Ruchat\textsuperscript{3,4}, J Hicks\textsuperscript{2}, MA Binnie\textsuperscript{3}, EM Yaquian\textsuperscript{3}, MF Mottola\textsuperscript{3,4}, \textsuperscript{1}Masters of Science in Foods and Nutrition, \textsuperscript{2}Brescia University College and \textsuperscript{3}Exercise & Pregnancy Lab, \textsuperscript{4}The University of Western Ontario, London, ON. [R]

OBJECTIVE: To compare women’s intention to breastfeed to their breastfeeding practices at 2-months postpartum.

METHODS: Twenty-six (13 overweight/obese and 13 healthy weight), mostly Caucasian women from London (Ontario) were asked to complete infant feeding questionnaires at 2-months postpartum.

RESULTS: These women were 31.6 ± 4.0 (mean standard deviation) years old and had a body mass index (BMI) of 27.4 ± 6.3 kg/m\(^2\). Fifteen women had a previous child and breastfed exclusively for 5.8 ± 4.6 months. During their recent pregnancy, 24 of the 26 women planned to breastfeed their infant, either exclusively or in combination with infant formula. Half of those women (12/24) wanted to breastfeed for ≥6 months. The two women who did not plan to breastfeed were advised by their physician not to because of medications they were taking. At 2-months postpartum, over half of the women were exclusively breastfeeding (15/24), few were supplementing with formula (4/24) and some only offered formula (5/24). Those who stopped breastfeeding did not breastfeed as long as they intended and the majority of them (4/5) had a BMI >25 kg/m\(^2\). Furthermore, nearly 26% of the breastfeeding women were not providing vitamin D oral supplementation to their infants at 2-months postpartum.

CONCLUSIONS: Our results suggest that postpartum women, especially overweight/obese women, would benefit from more support after delivery given that 21% of women who planned to breastfeed their infant had stopped breastfeeding at 2-months postpartum. In addition, these women would also benefit from education about the importance of vitamin D supplementation for the health of breastfed infants in Canada. Healthcare professionals can use the results of this study to help bridge the gaps between breastfeeding intentions and practices of women and help provide more support to women in the perinatal period.

More research to document breastfeeding intentions and practices as well as infant vitamin D supplementation is warranted.

REFERENCES

gen.pdf
gss/pdf/hs06/eng.pdf

IMPLICATIONS AND CONCLUSIONS

These preliminary results suggest that postpartum women, especially overweight/obese women, would benefit from more support after delivery given that 21% of women who planned to breastfeed their infant had stopped breastfeeding at 2-months postpartum. In addition, these women would also benefit from education about the importance of daily oral vitamin D supplementation for the health of breastfed infants in Canada. Healthcare professionals can use the results of this study to help bridge the gaps between breastfeeding intentions and practices of women and help provide more support to women in the perinatal period.

TABLE 1: Infant Feeding Status at 2-Months Postpartum

<table>
<thead>
<tr>
<th>2-month Postpartum</th>
<th>Exclusively Breastfeeding</th>
<th>Breastfeeding and Formula Feeding</th>
<th>Formula Feeding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women (n=24)</td>
<td>15/24 (62.5%)</td>
<td>4/24 (16.7%)</td>
<td>5/24 (20.8%)</td>
</tr>
</tbody>
</table>

Those who stopped breastfeeding at 2-months reported that they did not breastfeed for as long as they intended. The majority of women who stopped breastfeeding (4/5) had a BMI ≥25.0 kg/m\(^2\). These findings were consistent with other studies reporting that overweight/obese women do initiate breastfeeding they tend to breastfeed for shorter durations compared to women of normal weight (4.5).

Nearly 26% (5/19) of the breastfeeding women were not providing vitamin D oral supplementation to their infants at 2-months postpartum.
Digital Narratives as an Educational Tool in Food and Nutrition Practice
Emily Vettese*1, Jacqui Gingras¹, Sarah Lynch¹, Ahuva Magder¹, Juliana Cavalieri¹
¹Ryerson University, Toronto, Ontario

What is Digital Storytelling?
A short, 2-3 minute film (video), composed of a personal narration, photographs or digital video clips, and often a musical soundtrack accompaniment, that makes use of the ancient art of oral storytelling with modern technical tools (1).

Digital storytelling found its beginnings in the 1990’s in California when founder, Joe Lambert, wanted to combine creative writing, dramatic therapy, and community development with a liberating activism that worked to empower people emotionally (2).

Findings
After the Dietetic Internship
"I think that it would be an amazing experience for…undergraduates especially because you just become, well in my experience… I became so selfish… but you also have to make sure you are aware of others… I mean we’re always talking about cohesiveness in the dietetic community and how hard it is once students get to the professional level to be cohesive. This would, I think, be an amazing experience for people to build that.” (Intern).

• Participants described feeling a sense of connection between group members
• Connection between group members provided a more beneficial learning environment where they felt safe to share thoughts & ideas

Self-exploration
"From a wellbeing standpoint, to create this and to be so in your own head and really thinking about yourself and the choices that you’ve made, or situations you’ve been in, that makes you a healthier person. Which in turn, if you want to be working in the health care community, you want to take care of your own health too.” (Student).

• Participants found the experience very emotional and enlightening as they explored the vulnerable sides of themselves that they rarely get the chance to explore
• Self-exploration provided the opportunity to better understand themselves so that they could further improve your practice

Empathy
"I think that as practitioners we have to be able to empathize with other people and I think that this totally teaches that so somehow incorporating that.” (Dietitian).

• Participants believed that by hearing each other’s stories, they were reminded that everyone with whom they are working with has a story worth hearing
• This realization creates a sense of empathy which is important when connecting with others, either classmates, colleagues, or clients

Creativity
"The more practice you have at being creative … you start to think more outside the box. I think that … you can do your job better, and you can be a better clinician, health practitioner, whatever, by being creative. Because then people remember those things…” (Dietitian).

• Through writing a script, thinking of images, and gathering sound to expand their story, participants developed their creativity skills which they believed could be beneficial in professional practice

Research Purpose & Question
To engage students, interns, and dietitians in the process of creating a digital story in order to gain insight into the ability and use of this tool in the educational and professional practice settings.

How does the experience of creating a digital story enhance students’ and interns’ preparation for practice or contribute to dietitians’ current practice?

Research Design & Methods
Participants:
- Four participants; two nutrition students intending to apply for dietetic internship, one dietetic intern, and one practicing dietitian

Data Collection:
- Utilized a narrative approach to gain insight into the lived experiences of participants who created digital stories that were personally relevant to their journey through dietetics thus far
- Digital story creation took place in a workshop format over 3, 8-hour days
- Participants also took part in 1.5 hour focus group and 30 minute, one-on-one interviews

Workshop Process:
1. Write & edit 300 word script
2. Audio record script
3. Storyboard digital narrative
4. Gather images and sound clips
5. Put film together using Final Cut Pro
6. Receive one-on-one and group feedback
7. Finalize and screen film

Data Analysis:
- Based on Rabiee’s (3) thematic focus group interview & data analysis framework
- Four participants; two nutrition students intending to apply for dietetic internship, one dietetic intern, and one practicing dietitian

Data Collection:
- Utilized a narrative approach to gain insight into the lived experiences of participants who created digital stories that were personally relevant to their journey through dietetics thus far
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6. Receive one-on-one and group feedback
7. Finalize and screen film

Data Analysis:
- Based on Rabiee’s (3) thematic focus group interview & data analysis framework

References

Potential Educational & Practical Uses
After the Dietetic Internship
"I think sometimes… we need reminding that everybody has a story, I think living in Toronto, such a big city where everyone’s so… were all together but we’re so isolated from each other. And when you’re in practice… you need to remember that every single person coming has a story and has a reason that they are the way they are… and this (research) definitely, definitely reminded me of that.” (Intern).

Simulations
"I saw a video of an actual person who had made this video about their struggle with, you know, heart disease, or diabetes or whatever, that puts a personal… that’s what you’re going to be encountering.” (Student).

Patient-Produced Stories
I would love to be able to do something like this with my patients… if health professionals saw people’s stories… I think it could help health care providers be more empathetic or compassionate.” (Dietitian).

Conclusion
"I think sometimes… we need reminding that everybody has a story, I think living in Toronto, such a big city where everyone’s so… were all together but we’re so isolated from each other. And when you’re in practice… you need to remember that every single person coming has a story and has a reason that they are the way they are… and this (research) definitely, definitely reminded me of that.” (Intern).

-Purpose of the study was to determine if digital storytelling could be an effective and engaging educational tool
-Participants believed that it could be used in an educational setting, however could not replace a written/typed story, but instead used in conjunction with traditional methods

-It was found that the tool can be taken out of the educational context and used to bridge education with professional practice
-Digital storytelling teaches self-exploration, empathy, and creativity, which were expressed to be needed in one’s professional practice
The Voice of Experience: A Qualitative Analysis of Food Intake, Weight Change and Related Factors in Women Treated with Chemotherapy for Early Stage Breast Cancer

Vance, V, Campbell, S, McCargar, L, Mourtzakis, M and Hanning, R

University of Waterloo, Waterloo, ON, Canada, University of Alberta, Edmonton, AB, Canada

BACKGROUND

- Weight gain, increase in body fat and loss of lean tissue are common among a growing population of breast cancer survivors. 1
- These changes are distressing and may increase the risk of obesity-related disorders and disease recurrence.
- Relationships between acute and chronic effects of treatment, dietary change and weight gain after diagnosis are poorly understood.

OBJECTIVES

Purpose: to gain an appreciation of the experience of food intake and weight change over the treatment trajectory, from the perspective of women who have received chemotherapy for breast cancer.

METHODS

- In-depth qualitative interviews with breast cancer survivors.
- > 18 y, within 12 months of completing chemotherapy, clinical stage I-IIA.

SAMPLE CHARACTERISTICS

<table>
<thead>
<tr>
<th>Chemotherapy *</th>
<th>Mean (SD)</th>
<th>Range</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Cycles</td>
<td>5.9 (1.9)</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td>Duration of Treatment (weeks)</td>
<td>15.0 (4.0)</td>
<td>4.24</td>
<td></td>
</tr>
<tr>
<td>Time From Treatment (months)</td>
<td>6.4 ± 4.4</td>
<td>0.5-13</td>
<td></td>
</tr>
<tr>
<td>Weight Status at Diagnosis</td>
<td>Mean (SD)</td>
<td>Range</td>
<td>n (%)</td>
</tr>
<tr>
<td>Body Weight (kg)</td>
<td>72.1 (15.2)</td>
<td>50.9-104.5</td>
<td></td>
</tr>
<tr>
<td>BMI (kg/m²)</td>
<td>25.9 ± 5.7</td>
<td>18.1-38.6</td>
<td></td>
</tr>
</tbody>
</table>

n = 28 women, mean age = 49.8 ± 8.5 y, range 33 – 69.
- Dominantly Caucasian (n=25, 89%), married (n=18, 64%), college or university educated (n=22, 79%), premenopausal at diagnosis (n=19, 68%).
- Clinical stage I (n=3, 11%), II (n=15, 53%), and III (n=10, 36%).

RESULTS

"every once in a while I’d get a craving and it would be something that I wouldn’t even really eat. I wanted macaroni and cheese out of the box".

"I just didn’t have enough energy (to eat)….nothing was appealing".

"the first few days, really the only thing that tasted half way decent was sweets, sweet foods, so I was eating more of that."

"the worse thing for me with chemo was the taste in my mouth and nobody told you about that. I didn’t want to eat anything….nothing tasted good".

- 9 women (32%) reported that they had eaten more during treatment compared to their usual diet before diagnosis. Most women reported lower levels of physical activity.
- Food intake during treatment appeared to be highly responsive to treatment day. Changes in appetite & changes in food appeal (cravings/aversions, comfort foods) were common.
- Fatigue, taste changes, GI disturbance, family/social support and the emotional impact of cancer and its treatment were key factors contributing to food intake and weight change during treatment.

CONCLUSIONS

- Individual dietary responses to common psychosocial and treatment-related challenges during treatment are highly variable.
- Food intake and dietary patterns may play an important role in weight change for some women.

CLINICAL APPLICATIONS

- Monitor weight: both gain and loss, may associate with adverse health effects.
- Screen for common psychosocial and treatment-related factors affecting food intake: refer to supportive care personnel.
- Taste changes, nausea and emotional distress may promote food cravings, increased appetite and weight gain.
- Extreme fatigue, GI disturbance and lack of social support may promote weight loss.
- Ensure access to supportive services and adequate nutrition through treatment.
- Promote positive changes in diet during treatment; many women are receptive
- Offer supportive dietary services early in the treatment trajectory.

"I didn’t want my weight to go up for sure. I saw it as an opportunity to make some changes that I could carry through when chemo and treatments were done".

FUTURE DIRECTIONS

- Adverse health consequences of weight change, fat gain and loss of lean tissue underline the importance of a healthy diet across the treatment trajectory.
- Variability in food intake within cycles and across treatment highlights the challenges of capturing changes in food intake using spot 24 hr recalls or food records.
- The integrity and transferability of key themes from this qualitative research should be tested in large, diverse populations of breast cancer survivors.

REFERENCES


ACKNOWLEDGEMENTS

This research is supported by a grant from the Canadian Foundation for Dietetic Research. V. Vance was funded by a Doctoral Research Award from the Canadian Institutes of Health Research.
CONNECTING WITH HIGH SCHOOL STUDENTS: informing the development of novel nutrition education resources for grade 9 and 10 teachers


PROCESS:
Following a literature review, key informant interviews with teachers and focus groups with grade 9 and 10 students (n = 48) were conducted in 2011.

PROJECT SUMMARY:
Findings from the literature review and interviews informed focus group discussion questions.

Focus groups revealed:
- Students feel they are eating well if they are satisfied with their appearance (weight), are not unwell, and/or meet some of the recommendations in Canada’s Food Guide
- For some students (mainly boys), being physically active means they can be less concerned about how much or what they are eating
- To most students, healthy eating appears to mean “eating vegetables and fruit daily”
- Students seem minimally engaged with making healthy food choices, but feel ‘reminders’ would help them to think about it more often and to make healthier food choices
- For most, the strongest motivator to eat well seems to be appearance (weight)
- Parents, teachers and athletic coaches are trusted sources of nutrition advice
- Parents and coaches are perceived as positive influencers on food choices, while it seems teachers’ influence is more knowledge-based

- Parents and the home environment primarily determine healthy food choices
- Students have little interest in foods skills and are minimally involved in food/meal preparation
- Students identified convenience, cost and availability of tasty foods as important factors in their food selection
- Students feel barriers to eating well are:
  1. Healthy eating is not top of mind (need reminders)
  2. Eating with peers (most often at fast food outlets)
  3. Dissatisfaction with cafeteria choices and atmosphere
  4. Unstructured weekend eating
- Text messaging is their main “peer to peer” electronic communication tool

RECOMMENDATIONS & CONCLUSIONS:
Students are generally disengaged with healthy eating, but may benefit from ‘reminders’ or ‘incentives’.

Text messaging presents one opportunity to connect with students.

Further investigation to determine how best to engage teens is required.

Further exploration of the varying roles of parents, coaches, the school environment, and peers in making food choices is needed.

Insight into peer-to-peer electronic communication is also useful when considering innovative peer-led learning strategies.
**Parenting in Peel: Public Health on Facebook**

**Background**
Social media has created new opportunities for dietitians to provide nutrition support in a manner characterized by interactivity, user-generated content, and multi-directional communication flows.

- 74% use the internet to look for information on health, pregnancy, and parenting.
- 92% are familiar with social media and 79% actively use it, with Facebook being the most popular platform amongst respondents (85%).
- 56% said they would become a fan of a Peel Public Health Facebook page.

**Goals**
- Awareness
- Innovation
- Education

**Target Audience**
Parents-and-parents, caregivers of children birth to age six, other Region of Peel employees, the health community (i.e., Hospitals, Local Health Integration Networks), community partners (i.e., child care agencies, Ontario Early Years Centres), government and policymakers, other health units, “Mommy” and family bloggers, media.

**Key content areas**
Preconception and pregnancy, breastfeeding, parenting children from birth to age six.

**Implementation**

**Operational Protocols**
- **Staffing**: 1 Public Health Nurse (PHN), Public Health Nutritionist or Health Promoter to monitor and manage the page per day, 1 PHN assigned as a back-up per day, Family-Health Supervisor, Communications Specialist.
- **Hours of Work**: Platform is accessed by the public 24 hours a day, 7 days a week.
- **Confidentiality**: Facebook discloses their use of information in a privacy statement.
- **Documentation**: Follows professional documentation standards.

**Evaluation**
Key analytics include:
- Facebook “Insights”
- Parenting in Peel website statistics monitoring

- Fan growth increased by 38% (317 to 23 fans, 10-1900 in May 2012), 77% female.
- Over 2,300 client interactions, page viewed over 500,000 times.
- 24% increase in views of Parenting in Peel.ca website.
- 66% new fans acquired via running ads on Facebook.
- Enhanced staff knowledge and skill in social media, web development, project management, online communication, and leadership.

**Results**

**Tips for Getting Started with Social Media**
1. Follow your social media policy.
2. Keep improving your website.
3. Dedicate resources to develop and run a social media platform.
5. Create a strategy with clear objectives.
6. Know your audience.
7. Engage your clients.
8. Monitor trends and discussions.
9. Learn from metrics and evaluate.
10. Have a content clearance process.
Body Dissatisfaction, Concerns about Aging, and Food Choices of Baby Boomer and Older Women in Manitoba

Catherine Marshall, RD¹; Christina Lengyel, PhD, RD¹; Alphonso Utioh, PEng²
¹Department of Human Nutritional Sciences, University of Manitoba, Winnipeg, MB and ²Food Development Centre, Portage la Prairie, MB

Introduction
- Body dissatisfaction (BD) is highly prevalent in Western cultures
- BD seems to persist throughout the lifespan
- Aging is accompanied by physical changes that move women further away from the socio-cultural ideal of female beauty
- Western media and the weight loss/anti-aging industries place profound pressures on women to stay thin and young
- 60–80% of middle-aged and older women express BD
- There is limited research examining the body and food related attitudes/experiences of baby boomers and older women

Purpose
- To explore BD and concerns about aging among baby boomer (BB) and older women, and examine how their experiences/attitudes towards the body influence their food choices

Methods
- Study Design: Concurrent Mixed Methods Design
- Participants: Baby boomer (46-65 years) and older women (66+ years) living in rural and urban areas of Manitoba (n=137)
- Data Collection: Questionnaire and anthropometric measurements (quantitative) and focus groups (qualitative)
- Data Analysis: Quantitative data analyzed using SPSS software. Qualitative data – thematic analysis using NVivo9 QSR Software

Key Findings
- 42% of women were dissatisfied with their body weight
- On average, women wanted to weigh 8.8 kg (19.4 lbs) less
- Over half of the women (53%) reported dieting within the past year, with 21% using a formal diet/weight loss program

Key Findings (cont’d)
- 33% had concerns about the effects of aging on appearance
- 72% felt self-conscious about their body; 12% reported that these feelings prevent them from doing activities they enjoy
- BB women reported greater BD, aging concerns, and dieting
- Urban women were more preoccupied with appearance and reported more appearance anxiety than rural women
- Rural-dwelling women were more likely to use local and organic foods on a regular basis

Implications: Women’s Health
- BD has been associated with psychological distress
- BD can lead to dieting, disordered eating, and other dangerous weight control behaviours (e.g., purging, laxative use)
- Dieting has a poor success rate and can lead to nutritional deficiencies, eating disorders, weight cycling, and psychological distress (e.g., feelings of guilt, shame, anxiety, frustration)
- Body image and food issues can affect the health, well-being and quality of life of aging women and should be addressed

Future Directions
- Education: Health professionals need to be made aware of the body image and food issues experienced by aging women
- Program Development: There is a need for community-based nutrition education programs in rural areas of Manitoba

Acknowledgements
- Research Assistants: Whitney Penner, Rukmini Sen
- Manitoba Women’s Institute: Participant recruitment and focus group logistics
- Funding Sources: UNS/SSHRC, Manitoba Rural Adaptation Council, Manitoba Food Processors Association, Manitoba Graduate Scholarship, U of M Centre on Aging
- Thank you to the 137 participants who donated their time and shared their experiences

Sample Quotes
- “I’ve always struggled with my body image. I can’t remember when I haven’t, and I still struggle with it. I’m finding it even harder as I’m aging.”
- “I’ve had a weight problem all my life. I’ve tried many diets and they never work. You take the weight off then you put twice as much back on.”
Evaluation of the acceptability and feasibility of the multi-mini interview format for dietetic intern selection

C Brissette, M Keith. St. Michael’s Hospital, Toronto, Ontario.

BACKGROUND

The multi-mini interview (MMI) has been widely used for the selection of medical school and residency candidates in Canada, the US and the UK, and offers an alternative to the current dietetic internship (DI) interview process [1-5]. In the MMI, students rotate through a number of stations over a defined time frame. Stations can be simulation-based or structured questions based on desired competencies [6].

The MMI has been previously reported to be reliable, efficient and cost effective compared with traditional panel interviews [2,6]. In contrast to the traditional interview, the MMI format enables interviewers to assess candidates’ non-cognitive skills such as empathy and moral reasoning; skills that are highly valued when choosing candidates to enter healthcare professions [3,7]. Further advantages of using multiple interview stations include reduced interviewer bias, situational bias and the effects of chance [2].

Historically, the St. Michael’s (SMH) DI program used traditional interviews which were time and resource intensive. Due to the time commitment required to conduct these interviews, the panel members would vary between interviews, therefore reducing consistency when evaluating DI candidates.

Several DI programs have trialed the MMI for candidate selection. However, its suitability for dietetics requires further evaluation.

OBJECTIVES

The MMI was piloted with applicants to the SMH DI class of 2011-2012 to:

1) Evaluate candidate and interviewer acceptability
2) For quality improvement purposes

METHODS

MMI Format

• 40 candidates were interviewed in groups of 4, with one hour allotted per group
• Each candidate rotated through 4 themed stations
• Where possible, the same interviewers remained at each station to facilitate optimal comparison between candidates
• After completing the circuit, candidates attended a group question and answer period with program directors and current interns

Survey

• One week post-interview, candidates and interviewers were sent an online questionnaire via Survey Monkey consisting of open- and closed-ended items regarding the MMI and structure of the interview day
• Applicants were notified that questionnaire completion was entirely voluntary and anonymous and would not affect admission decisions

RESULTS

The response rate was 83% (n=33) for candidates; 100% (n=4) for interviewers
• 21.9% of candidates had previously applied for a DI
• Candidates were satisfied with the MMI (mean 6.9± SEM 0.33 on a 10-point scale), with 49% rating it 8/10 or higher
• 76% felt the MMI reduced anxiety compared to a traditional interview, with each station offering a “fresh start”
• Only 3% of respondents disliked the MMI, stating: “it doesn’t allow me to warm up like a traditional interview”
• Amongst interviewers, satisfaction with the MMI was high (8.3/10 ±0.25)

Interview type

<table>
<thead>
<tr>
<th>Traditional</th>
<th>MMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time/interview</td>
<td>60 min/1 candidate</td>
</tr>
<tr>
<td>Time*40 candidates</td>
<td>60*40 = 40 hr</td>
</tr>
<tr>
<td>Time*4 candidates</td>
<td>40*4 = 160 hr</td>
</tr>
</tbody>
</table>

Total labour hours: 160 hr vs 40 hr

The MMI was piloted with applicants to the SMH DI class of 2011-2012 to:

1. For quality improvement purposes
2. For quality improvement purposes

Themes Identified from Candidates’ Responses to Open-Ended Questions (n=29)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Rated positively</th>
<th>Rated negatively</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMI format</td>
<td>36.3 (29)</td>
<td>100 (80)</td>
</tr>
<tr>
<td>Content of interview questions</td>
<td>7.5 (6)</td>
<td>3.0 (2)</td>
</tr>
<tr>
<td>Timing/station</td>
<td>6.3 (5)</td>
<td>9.2 (6)</td>
</tr>
<tr>
<td>Question &amp; answer session at the end of the MMI</td>
<td>7.5 (6)</td>
<td>2.7 (18)</td>
</tr>
<tr>
<td>Min break between stations</td>
<td>7.5 (6)</td>
<td>4.6 (3)</td>
</tr>
<tr>
<td>Organization of day</td>
<td>13.1 (1)</td>
<td>3.0 (2)</td>
</tr>
<tr>
<td>Meeting other applicants</td>
<td>13.1 (1)</td>
<td>6.2 (4)</td>
</tr>
<tr>
<td>Other</td>
<td>32.5 (26)</td>
<td>1.8 (12)</td>
</tr>
<tr>
<td>Total</td>
<td>100 (80)</td>
<td>100 (80)</td>
</tr>
</tbody>
</table>

IMPLICATIONS & CONCLUSIONS

• Implementing the MMI improved efficiency by preserving financial and human resources
• Fairness was also enhanced, as this format permitted consistent interviewers for all sessions
• Overall, the MMI saved resources and rated high on acceptability for all stakeholders; thus it will continue to be utilized and evaluated for QI in the SMH DI selection process
• To validate the MMI for DI, research linking interview results and future performance is needed

REFERENCES

Perception of personal and offspring risk of type 2 diabetes among women with GDM

J McLaren*1, J MacLellan1, R McManus2, PDN Dworatzek1, IGiroux1

1Brescia University College at Western University, London, Ontario, 2St. Joseph’s Health Care London, London, Ontario. [R]

ABSTRACT

Objectives: To describe perception during pregnancy of self-risk and infant risk for developing type 2 diabetes mellitus (T2DM) among women with gestational diabetes mellitus (GDM).

Methods: Between 34 and 40 weeks of gestation, pregnant women (n=78) aged 18 to 50 years diagnosed with GDM completed a risk assessment questionnaire after providing informed consent. Participants were asked to rate their perceived lifelong personal risk for developing T2DM and their infant’s risk, on a scale from 0 to 100%. Prior to completion of the questionnaire, participants had received individualized counselling in GDM background and management from a Certified Diabetes Educator nurse and diettitian. Research was completed at a tertiary Endocrinology and Pregnancy Clinic, St. Joseph’s Health Care London, Ontario.

Results: Participants had a mean age of 32.3 ± 4.7 years, pre-pregnancy BMI of 31.7 ± 7.1 kg/m², and parity of 1.2 ± 1.5. On average women perceived their own risk to be 44.2 ± 26.1% and their infant’s risk to be 33.6 ± 22.0%. Proportion of women perceiving their own risk and their infant’s risk to be ≥50% was 60.8% and 40.0% respectively. Perceived infant risk was significantly lower than perceived self-risk, p<0.05. Interestingly, there was no significant difference in self-risk for T2DM between women managed with insulin (n=32) and those managed without insulin (n=46, p=0.6). Perceptions of risk may have been influenced by prior education.

Implications and conclusions: Findings from this survey suggest that pregnant women with GDM seen in this outpatient clinic perceived their own risk for developing T2DM, as well as the risk of their child developing T2DM. These results may suggest a window of opportunity to inform and support positive and protective behaviour changes in the family setting. Further, these findings may help to focus and clarify current T2DM risk information as provided during pregnancy.

METHODS

Recruitment: Participants were recruited at St. Joseph’s Health Care London, Endocrinology and Pregnancy Clinic in 2010-2012. All women diagnosed with GDM between the ages of 18 and 50 years were eligible to participate. The project was approved by the Western University Research Ethics Board and Brescia Research Ethics Board.

Data Collection: After receiving education and counseling in GDM background and management by a Certified Diabetes Educator nurse and diettitian, participants were asked to respond to the following questions:

On a scale from 0 to 100 percent(%), what do you think your risk (or chance) is of developing Type 2 Diabetes after this pregnancy?

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

On a scale from 0 to 100 percent(%), what do you think your infant's risk (or chance) is of developing Type 2 Diabetes during his or her lifetime?

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Analysis: Frequencies were tabulated for each level of perceived risk. The relationship between perceived self-risk and perceived infant risk for developing T2DM was analyzed using a student paired t-test. Microsoft Excel (version 2007) was employed for statistical analysis.

RESULTS AND DISCUSSION

Characteristics of Study Population (n=78)

Age (Mean ± SD) 32.3 ± 4.7
Pre-pregnancy BMI (kg/m²) (Mean ± SD) 31.7 ± 7.1
≥24.9 - <29.9 kg/m² (%) (overweight) 23%
>29.9 kg/m² (%) (obese) 55%
Education level (%)
≥High school 28%
College or Undergraduate 61%
Annual household income (%) <$29,000 11%
>$30,000-59,000 25%
>$60,000 61%
No. dependant children (Mean ± SD) 1.5 ± 1.9

T2DM Risk Perception: The mean perceived self-risk and infant risk for developing T2DM was 44.2 ± 26.1% and 33.6 ± 22.0% respectively. The proportion of participants perceiving their own risk and the risk of their infant to be ≥50% was 60.8% and 40.0% respectively. Perceived infant risk was significantly lower than perceived self-risk, p<0.05.

RESULTS AND DISCUSSION

IMPLICATIONS AND CONCLUSIONS

Women in this outpatient clinic perceived their own risk and their infant’s risk for developing T2DM. GDM may provide a window of opportunity to alert women to their own and their infant’s risk for T2DM which may in turn, encourage intention to adopt preventative behaviours.

REFERENCES


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Jennifer McLaren MS, PhD (candidate) jmclean5@uwo.ca
Studies have consistently reported that the inclusion of milk in the diets of children and youth significantly improves nutrient intake with no adverse effect on weight. Recent studies revealed that offering flavoured milk is one way to increase milk consumption among children. Milk is a key source of protein, calcium and several other macronutrients; and flavoured milks, in particular, appear to be a popular option among children.

**BACKGROUND**

Focus group interviews were conducted in January 2012 during regular school hours. Focus groups were approximately 25 to 30 minutes in length, audiotaped and transcribed for qualitative data analysis.

Focus groups were part of a larger quantitative study investigating milk intake in children.

**METHODS**

While students accurately stated health benefits of milk (i.e. source of calcium and energy), the most important perceived influences to their milk intake were taste, availability, cost, convenience and family/peer acceptance but social/physical environment, routine/habit also were influencers.

Common beverage replacements at school, when milk was not consumed, were water and juice.

A perceived barrier to drinking milk was the lack of variety compared to other beverages such as juice that offer many flavours.

When chocolate milk was removed from the school, and white milk only was offered, many students stated that it did not affect milk consumption at home. However, measured total milk usage in the schools dropped by approximately half.

**RESULTS**

While students accurately stated health benefits of milk (i.e. source of calcium and energy), the most important perceived influences to their milk intake were taste, availability, cost, convenience and family/peer acceptance but social/physical environment, routine/habit also were influencers.

**CONCLUSIONS**

Milk is a nutrient-rich and well accepted beverage choice in pre-teens. However influencers such as cost, taste, availability and convenience can impact intake immensely.

Students suggested strategies for improved milk intake such as offering containers with lids to increase portability. Students also valued choice by suggesting an increase to the variety (i.e. size, fat content, flavour) of milk offered.

**IMPLICATIONS TO PRACTICE**

Health professionals need to be aware that factors affecting milk intake by youth are complex but that changes to school milk programs, such as removing chocolate milk, have the potential to affect total milk consumption in children.

**ACKNOWLEDGEMENTS**

Research was funded by Dairy Farmers of Canada.
The development of an Objective Structured Clinical Examination (OSCE) in an internationally educated dietitians’ bridging program

B Brocket, L Buscher, D Candotto, S DePaolis, T Fansabedian, L Hagen, M Jung, E Love.

Ryerson University, Toronto, Ontario.

**Development**

- Using the literature as well as practicum preceptor feedback, we identified core skills to be assessed at the midpoint of the curriculum in a nutrition care course.
- Four OSCE stations were created with simulations of standardized practice problems mapped to these skills and to the breadth and depth of knowledge covered to date in the course.
- These skills included prioritizing relevant versus extraneous information, interpreting raw data into an assessment and plan, food knowledge skills, communicating information regarding a client to another practitioner or to the client themselves, and the ability to translate diet history data to relevant clinical assessment.
- Stations involved a combination of written and oral components and allowed candidates to hone in on clusters of specific skills.
- The intention was to create a unique forum for learning, one that was effective at both identifying candidates’ strengths as well as highlighting areas for further development.

**OSCE Stations**

<table>
<thead>
<tr>
<th>Station 1</th>
<th>Station 2</th>
<th>Station 3</th>
<th>Station 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician Chart Note (Written)</td>
<td>Client Simulation – Food Record Review (Oral) and Food Record Analysis (Written)</td>
<td>Review of Dietitian Chart Note (Written) and Simulation: Summary to Preceptor (Oral)</td>
<td>Assessment, Nutrition Diagnosis and Care Plan (Written) Client Simulation (Oral)</td>
</tr>
<tr>
<td>Skills: Identify relevant versus irrelevant data as well as missing information needed for assessment.</td>
<td>Skills: Client interview. Analysis of food record.</td>
<td>Skills: Development of a nutrition care plan and discussion of the care plan’s rationale with the dietitian preceptor (assessor).</td>
<td>Skills: Utilizing the data section of a dietitian’s chart note, an assessment, diagnosis and plan were formulated and communicated to the client.</td>
</tr>
</tbody>
</table>

**Method**

- Candidates were prepared prior to the OSCE through teaching and in-class orientation to the process phased in throughout the course.
- Detailed logistical planning was needed to seamlessly move 23 candidates between four separate stations. Six rooms were needed both for assessing and waiting purposes.
- Inter-assessor reliability was maximized by creating detailed rubrics and marking schemata with the intention of minimizing potential bias or subjectivity. An assessor training session was held prior to the OSCEs and a debrief session afterwards.
- Each station was run simultaneously among the five assessors to maintain academic integrity with respect to content; this also helped to alleviate assessor fatigue as they were only required to assess only five to six candidates per each OSCE station.
- ‘Quiet Rooms’ were made available with refreshments and reading materials as a respite between stations, and as a means to protect the content and integrity of the OSCE stations.

**Challenges**

- Although portions of the OSCEs and logistics may be reused, resource constraints may still be a consideration in the sustainability of this method of assessment.
- This includes human resource hours involved in the planning, development and execution of the day.
- The assessment day alone involved five assessors and four support staff for 23 candidates providing a ratio of approximately 1:3 and representing approximately 90 human resource hours.
- In addition, resource implications include the hiring and training of simulators, the development of cases and instructional materials for both the candidates and simulators.
- Candidates cited “not enough time” as a barrier for completion of some stations.
- Candidates also expressed a desire for more orientation, instructional and simulation preparation prior to OSCE day.

**Recommendations**

- The use of OSCEs did create an opportunity to assess specific skills in greater breadth and depth than previous assessment methods, and proved to be a powerful learning opportunity.
- The program will continue to use of OSCEs as part of the curriculum. The integration of more preparation and practice time for candidates will be explored prior to the OSCE day.
- The time-commitment involved in the grading stations was considerable. Future projects may include a heavier focus on oral stations with the possibility of more on-the-spot grading.
- Furthermore, the possibility of three stations, versus four, may be looked at to help with logistics, resources, as well as candidate fatigue.
- Future research is needed to determine the degree of association between the success in OSCE and readiness for practicum placement.

**Acknowledgments**

We would like to thank the 8th cohort of the IDPP for their openness to this new method of assessment. Additional thanks to the simulators and staff at the Interpersonal Skills Training Centre at Ryerson, and to our support staff, Ainur Asanbaeva and Jabeen Fyazi for their contributions to the day.

The IDPP is funded by:

Ontario receives support for some skills training programs from the Government of Canada
**ACCESS TO FOOD IN THE CANADIAN ARCTIC:**

**A CONCEPTUAL FRAMEWORK**

**Research Question**
What are the factors that influence nutritional status in the Canadian Arctic?

**Methods**

1) **Systematic Literature Review**
A comprehensive search on electronic databases (e.g., MEDLINE, and SCOPUS) of primary and secondary literature reporting issues of food and nutrition in the Canadian Arctic.

2) **Content Categorization**
1) Food consumption and dietary patterns
2) Nutritional quality
3) Food [in]security
4) Diet-related chronic diseases
5) Nutrient deficiencies

3) **Development of a Conceptual Framework**

**Possible Applications**
To appreciate the interdependency of factors that constitute access to food in the North.
To plan for effective action to improve the nutritional status of individuals in the region.
To inform articulation of further inquiry.

**Questions Arising**
How to evaluate the effectiveness of current programs and policies?
What are the conditions whereby individuals and communities have control of their food supplies and can effectively reduce their dependency on imports from the South?
How to re-evaluate nutrition guidelines in light of this conceptual framework?
The invalid’s dietary: Its presence in the present?

Catherine Morley, PhD, PDT, FDC, Acadia University, Wolfville, NS. [R].

Background:
- Member, Jane Austen Society of North America
- 2010 Visiting Fellow at Chawton House Library
- Studied cookery books 1640-1860 (feeding the sick)
- 2012 Visiting Researcher: How, if at all, do transitional diets relate to beliefs in humour-based medicine?

Observations:
1. All foods given were liquids
2. Confusing descriptors given
3. No instructions for use (ergo, what and when to feed was widely known?)

Questions arising:
- What was ‘common knowledge’ that is now lost?
- What foods were associated with treating various conditions/symptoms?

Further findings:
- Egads!
- Aim to balance the humours
- All conditions fit in the 'humours grid'
- All foods have properties within the grid
- Feeding followed bleedings, emetics, purgatives, blistering (burning)
- To feed the sick was to feed people who were near death

The Humours (simplified)

<table>
<thead>
<tr>
<th></th>
<th>WET</th>
<th>DRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOT</td>
<td>'Sanguine'</td>
<td>'Choleric'</td>
</tr>
<tr>
<td></td>
<td>(blood)</td>
<td>(yellow bile)</td>
</tr>
<tr>
<td>Liver</td>
<td></td>
<td>Gall Bladder</td>
</tr>
<tr>
<td>COLD</td>
<td>'Phlegmatic'</td>
<td>'Melancholic'</td>
</tr>
<tr>
<td></td>
<td>(phlegm)</td>
<td>(black bile)</td>
</tr>
<tr>
<td>Brain/lungs</td>
<td></td>
<td>Spleen</td>
</tr>
</tbody>
</table>


Question arising/process:
How, if at all, do humour-based feeding practices relate to transitional diets used today?
This was the focus of research (5/2012):
- Catalogue recipes
- Catalogue claims and adjectives
- Better understand humour-based medicine
- Categorize, if possible, the dietary/food claims/beliefs relative to the humours
- Source the origins of the use of terms ‘clear fluids, full fluids, and light’ diets
- Chart the evolution of diet therapies (1600s to the present)

Sincere thanks for funding support from:
Chawton House Library 2010
Acadia University, 2012
The Use of Front-of-Pack Nutrition Rating Systems on new breakfast cereal labels (1999-2011)

M Lim∗1, T Emrich1, M L’Abbe1
1Department of Nutritional Sciences, University of Toronto, Toronto, ON

Table. Front-of-pack systems used on new cold breakfast cereals (1999-2011)

<table>
<thead>
<tr>
<th>Nutrient- specific Systems</th>
<th>Summary Indicator Systems</th>
<th>Food Group Information Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure. Proportion of new cold breakfast cereals carrying front-of-pack systems (2001-2011)

- Data points for 1999 (3 cereals) and 2000 (14 cereals) were excluded from the graph because of their insufficient sample sizes; no FOPS were observed.

Summary of findings:
- Use of FOPS on cold breakfast cereal packages increased significantly between 1999-2011 (p<0.001)
- The use of FOPS on new cereals began to take off in 2005, and saw its greatest increase in 2008
- Since 2009, the use of FOPS appears to have plateaued
- 91% of FOPS observed were nutrient-specific systems and summary indicator systems

Acknowledgements – CIHR/Canadian Stroke Network research grant: Sodium and Health Knowledge-to-Action; Stipend support for Teri Emrich funded by the Cancer Care Ontario and the CIHR Training Grant in Population Intervention for Chronic Disease Prevention: A Pan-Canadian Program (Grant #53893); additional funding from the Earle W. McHenry Research Chair Award to Mary L’Abbé.
The Healthy Food and Beverage Sales (HFBS) in Recreation Facilities and Local Government Buildings Initiative: experiences of recreation facility staff

K Davison¹, L Cameron¹, J Lu², R Booth²
¹Viva Health Education and Research  ²Corporation of the City of New Westminster

Background:
- HFBS Initiative outlines criteria (Table 1) for the provision of food and beverages for concessions, vending, recreation programs, catering and cafeteria services operated by municipal governments
- Project objective was to detail the experiences of municipalities in BC’s lower mainland involved in the HFBS Initiative to provide direction to stakeholders of The City of New Westminster (CNW)

Process:
- Detailed review of 11 sites selected by CNW: observation of operations, interviews of personnel, and examination of site-specific HFBS resources

Findings:
- All sites implemented the HFBS program and experienced successes and challenges (Table 2); most implemented vending criteria (n=8) only
- Initial decline in sales then trended upwards with more dramatic increase for “Not Recommended” or “Choose Least” categories (Figure 1)
- Extent of implementation depended on the amount of seed funding provided
- None of the sites had officially adopted a healthy food and beverage policy

Conclusions:
- HFBS Initiative was a catalyst for changes in food provision and promoted dialogue on food and beverage policy development
- Provision of seed funding is instrumental for program implementation
- Changes in food environments requires establishment of tangible goals, commitment from stakeholders, dedicated resources, continual buy-in and ongoing monitoring

---

**Table 1: Definitions and Criteria of Food and Beverage Guidelines**

| **Choose Most** | Highest in nutrients and least processed. Account for ≥ 50%. |
| **Choose Sometimes** | Nutritious but moderately salted, sweetened, or processed. Account for up to 50%. |
| **Choose Least** | Low in key nutrients or may be highly salted, sweetened, or processed. Must be eliminated. |
| **Not Recommended** | High amounts of sweeteners, salt, trans fat, or calories relative to nutritional value. Must be eliminated. |

Derived from ActNowBC’s Guidelines for Food and Beverage Sales in BC Schools

**Table 2: Implementing the HFBS Initiative**

<table>
<thead>
<tr>
<th>Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited eligible choices available from suppliers</td>
</tr>
<tr>
<td>Initial decline in sales; ranged from 10 to 36%</td>
</tr>
<tr>
<td>Limited buy-in from frontline workers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Track sales and shift poor product performers to other sites as needed</td>
</tr>
<tr>
<td>Do intercept studies and point of sale promotion</td>
</tr>
<tr>
<td>Audit vending offerings regularly to ensure suppliers place items in the correct categories</td>
</tr>
</tbody>
</table>

**Figure 1: Average Units Sold of Vending Machine Product Per HFBS Criteria – February to May**

HFBS started
Dietitians as Members of Primary Health Care Teams in Saskatchewan

Leandy Riley, Carol Henry, MEd, PhD
College of Pharmacy and Nutrition, University of Saskatchewan

The Purpose
To explore and describe the roles of dietitians as members of primary health care teams (PHCT) in Saskatchewan.

The Research Questions
1. What are the perceived roles of dietitians as members of PHCTs in Saskatchewan?
2. What recommendations can be made to further strengthen the roles of dietitians in PHCTs?

A Qualitative Research Design: Methodology
Dietitians were recruited into the study through multiple approaches:
- Saskatchewan Dietitians Association Newsletter & E-blast
- Recommendations from Primary Health Care Directors
- Snowballing - recommendations from dietitians interviewed

16 in-depth interviews across Saskatchewan from a variety of PHC settings
- 4 in person; 12 via telephone
- Work within rural/urban communities within the province
- Years of Experience: 1-20

Implications
- Health leaders & policy makers need to promote supportive environments.
- There is a need for educational programs that amplify the existing models for educating dietitians.
- Dietitians’ scope of practice will continue to expand if they exploit opportunities to increase their skills & knowledge in specialized areas.

Selected References

Acknowledgements
- Organisation of American States
- Isabella Irwin Fund, U of S
Une Trousse Éducative sur les Saines Habitudes de Vie pour les Enfants d’Âge Préscolaire
An Education Kit on Healthy Lifestyle Habits in Preschool Children
I Giroux1, S-M Ruchat1, C Beaulieu2, E Harlton1, MF Mottola1, K Sandiland1,2
1Western University, 2Réseau Franco-Santé du Sud de l’Ontario (RFSSO), London, Ontario [E]

INTRODUCTION

BUT / PURPOSE
La trousse éducative a pour objectif de sensibiliser les parents et intervenants en garderie à l’importance de développer de saines habitudes de vie chez les enfants d’âge préscolaire en suggérant des jeux favorisant l’apprentissage d’une saine alimentation et d’un mode de vie actif en garderie et à la maison. Le programme offre aux familles une trousse éducative sur la saine alimentation et l’activité physique sécuritaire dans plusieurs communautés francophones de l’Ontario en situation linguistique minoritaire.

Pour plus d’information, S.V.P. contactez :
Dr. Isabelle Giroux: giroux@uwo.ca ou igiroux@uottawa.ca
Camille Beaulieu au RFSSO: camilleb@laribambelle.ca
ABSTRACT

Objective: To assess the perceived recommendation for daily vegetables and fruit (veg&fruit) intake of individuals within a prediabetes population and their attainment of the actual recommendation according to Canada’s Food Guide (CFG). Methods: In 2009-2010, 114 individuals (half men and half women, aged 35-83, including 55 middle and 59 older adults) attended two education sessions on prediabetes and completed a questionnaire prior to the start of session 2. Participants were asked their perception of the CFG recommendation for veg&fruit intake/day and if they thought they were meeting the actual recommendation. Results: Average self-reported participant weight and height were 88.6±18.2 kg (mean ± standard deviation) and 1.70±0.11 meters respectively, for a body mass index (BMI) of 30.9±6.6 kg/m². On average, participants believed that the CFG recommendation for veg&fruit intake was 4.9±2.1 servings/day. Forty-six percent (52/114) were under the impression that the recommendation of CFG for veg&fruit was <5 servings/day. Almost 60% of participants (67/114) were confident that they were meeting the actual recommendation. A third of participants (38/114) felt that they were not meeting the recommendation and few participants (9/114) did not know. Implications & Conclusions: These results provide insight into the perceived recommendations and consumption within this sample population of individuals with prediabetes. Those providing prevention education to individuals with prediabetes will be able to use these results to clarify the recommended intake of veg&fruit. This may help increase actual veg&fruit consumption. Further studies are needed to confirm these preliminary results.

METHODS

In 2009-2010, 114 individuals (half men and half women, aged 35-83, including 55 middle and 59 older adults) attended two education sessions on prediabetes and completed a questionnaire prior to the start of session 2. Participants were asked their perception of the CFG recommendation for veg&fruit intake/day and if they thought they were meeting the actual recommendation. This project was funded in part by a Brescia University College Research Grant.

RESULTS & DISCUSSION

Average self-reported participant weight and height were 88.6±18.2 kg (mean ± standard deviation) and 1.70±0.11 meters respectively, for a body mass index (BMI) of 30.9±6.6 kg/m². On average, participants believed that the CFG recommendation for veg&fruit intake was 4.9±2.1 servings/day. Forty-six percent (52/114) were under the impression that the recommendation of CFG for veg&fruit was <5 servings/day. Interestingly, it is possible that the perception of the recommendation was different between men and women (p=0.05). Statistics Canada also reported that men consumed less vegetables and fruit than women, based on 2009-2010 data (9). Almost 60% of participants (67/114) were confident that they were meeting the actual recommendation. A third of participants (38/114) felt that they were not meeting the recommendation and few participants (9/114) did not know.

IMPLICATIONS & CONCLUSIONS

These results provide insight into the perceived recommendations and consumption within this sample population of individuals with prediabetes. Those providing prevention education to individuals with prediabetes will be able to use these results to clarify the recommended intake of veg&fruit. This may help increase actual veg&fruit consumption. Further studies are needed to confirm these preliminary results.

REFERENCES


FOR MORE INFORMATION: igiroux@uwo.ca or igiroux@uottawa.ca
Exploring the Role of Dietitians in Trans Care

Nicole MacLellan, BSc, RD, CDE1, Kelly Matheson, MSc, RD1, Sio Khuan (Sharon) Khoo, BASc, RD, CDE1, Eric Ng, MPH, RD, CDE1

1 Sherbourne Health Centre, Toronto, Ontario. 2 Women’s Health in Women’s Hands Community Health Centre, Toronto, Ontario. 3 Canadian Mental Health Association Ontario, Toronto, Ontario

**Introduction**

• The term ‘gender’ is fluid and has a different meaning than biological sex
• Transgender (trans) clients have specific health care needs and dietitians are often involved in their care

**Statistics**

• Approximately 70% of trans people in Ontario live outside of Toronto and have very limited access to appropriate primary care
• Trans people in Ontario are frequently denied health care, or are treated with disrespect within health care settings

**Process**

• Literature search was conducted to investigate current practice when working with this community as it relates to dietetics

**Findings**

• Very limited research has been done with this community
• Literature review reveals several studies on cardiovascular/metabolic issues
• Clinical practice guidelines have been established for medical management of hormone therapy in primary care
• Results show that there is no studies focusing on the nutritional aspects of trans care

**Nutrition Issues for Trans People**

• Nutrition issues related to Hormone Therapy: Cardiovascular disease, diabetes, bone density
• Eating disorders and body image: Restriction of calories to meet society’s constructed images of ‘man’ and ‘woman’ or, over-consuming to mask an outward appearance that does not match internal feeling of gender pre-transition
• Social Determinants of Health (SDOH): Several that impact trans clients including employment insecurity, poverty, homelessness, social isolation, mental health
• Physical Activity: Many recreation activity and fitness facilities are categorized in binary terms of ‘men’ and ‘women’
• Nutrition counselling: Recommendations, measurements, requirements are often categorized for men and women

**Recommendations**

• Early screening with blood work, nutrition education and physical activity
• Peer and professional support for building positive body image and size acceptance
• Consider SDOH when developing nutrition care plans
• Advocate for trans-positive activity programs e.g. swim hour at pool
• Utilize gender-neutral terms (“them”, “adult”) and focus on how clients identify themselves

**Reflection and Next Steps**

• It is important to become aware and inclusive of the issues affecting trans individuals
• Plan and implement focus groups of trans individuals across the lifespan to gain a better sense of what needs exist

**References and Resources**

Rainbow Health Ontario
[www.rainbowhealthontario.ca/lgbtHealth/lgbtHealthissues.cfm](http://www.rainbowhealthontario.ca/lgbtHealth/lgbtHealthissues.cfm)

Sherbourne Health Centre (Guidelines and Protocols for Comprehensive Primary Health Care for Trans Clients)
[http://www.sherbourne.on.ca/PDFs/Trans-Protocols.pdf](http://www.sherbourne.on.ca/PDFs/Trans-Protocols.pdf)

Vancouver Coastal Health (Guidelines for Transgender Care)
[www.transhealth.vch.ca/](http://www.transhealth.vch.ca/)

Canadian Professional Association for Transgender Health
[www.cpath.ca/home/](http://www.cpath.ca/home/)

World Professional Association for Transgendered Health (Standards of Care)
[www.wpath.org](http://www.wpath.org)
Program Overview
The Master of Science in Clinical Nutrition (MSCN) program provides rigorous graduate education in clinical nutrition. Graduates are prepared with critical thinking and scientific skills needed for advanced-level clinical practice, management, research, and leadership roles. The program instills an appreciation for interdisciplinary collaboration and education; provides “upskilling” opportunities to achieve expanded roles in health promotion, disease prevention, and intervention for a multi-cultural society.

Use of Technology:
A multifaceted use of technologies are integrated into courses and seminars thereby bringing students and faculty together within innovative learning environments.
- Virtual learning platform using the Moodle course management system
- Virtual sessions using Blackboard Collaborate
- Video lectures and animation
- Educational CD-ROMS to augment classes
- Nutrition Focused Physical Assessment virtual simulation program
- Social media platforms including Facebook and Diigo

MSCN Alumni Perceptions of Meeting Programmatic Competencies

Global Student Representation
United States
Canada
Israel
Japan
Singapore

Alumni Accomplishments
Alumni have expanded career opportunities after completing the program. Many have advanced to positions in: clinical management, academia, industry, and specialty practice.
- 55% have presented an oral or poster presentation
- 48% are involved in research activities
- 41% have published a manuscript in a peer-reviewed journal or newsletter, authored a book, book chapter or other professional publication
- 38% reported that the MSCN degree contributed to enhancing their professional position
- 22% have received an increase in compensation
- 19% hold leadership positions in professional organizations

For more information on the Master of Science in Clinical Nutrition visit http://shrp.umdnj.edu/dept/nutr/programs/m_clinutr.html
**INTRODUCTION**

- Dysphagia affects approximately 400,000 Canadians and has been linked to undernutrition in older adults. A link has been found between malnutrition and dysphagia.
- Poor intake of pureed foods often leads to inadequate intake of nutrients and overall calories, contributing to the vicious cycle of malnutrition.
- Currently, there are numerous commercial pureed products on the market, yet comparison studies of sensory properties and nutrient composition have not been conducted.
- Therefore, the objectives of this research are 1) to determine consumer liking of selected commercial pureed foods 2) compare nutrients contents of the foods.

**MATERIALS & METHODS**

- Purees are identified by labels CP1, CP2, CP3, CP4 (Carrots), TP1, TP2, TP3, and TP4 (Turkeys), and BP1 and BP2 (Bread).
- Nutrient analysis of each puree was determined as follows:
  - Protein – Dumas, Fat – Soxhlet, Carbohydrate = 100 – (ash content) – (moisture content) – (protein) – (fat) – (fibre), Sodium – Quantab Titrator Strips, & Fibre – Total Fibre
- Sensory testing was conducted to determine consumer liking.
- Participants were required to be consumers of pureed foods.
- Consumer liking was measured using a modified 5 point hedonic scale with facial symbols (1=very bad, 5=very good).

**ANALYSIS**

- Among the purees, differences in nutritional profiles were determined using a 2 way ANOVA plus interactions using SAS (V9.1).
- Differences between puree samples were determined using a Tukey’s HSD test with α=0.05.
- Frequency of consumer liking responses for each product was tabulated and plotted.

Laurel Ettinger ettingel@uoguelph.ca  (519) 993-1851

This work is funded by the OMAFRA: University of Guelph partnership program.

**RESULTS**

Table 1.1: Nutrient means and standard deviations for commercial pureed carrots, turkey, & bread purees

<table>
<thead>
<tr>
<th>Puree</th>
<th>Fat (g/100g)</th>
<th>Protein (g/100g)</th>
<th>Carbohydrate (g/100g)</th>
<th>Fibre (g/100g)</th>
<th>Sodium (mg/100g)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Carrots</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP1</td>
<td>1.3a</td>
<td>0.5c</td>
<td>7.8b</td>
<td>6.4b</td>
<td>246a</td>
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<tr>
<td>SD</td>
<td>0.17</td>
<td>0.2</td>
<td>0.3</td>
<td>0.7</td>
<td>12.7</td>
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<tr>
<td>CP2</td>
<td>0.0b</td>
<td>0.2b</td>
<td>7.4a</td>
<td>3.3a</td>
<td>156a</td>
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<td>0.1</td>
<td>0</td>
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<td>0.0</td>
<td>0.2</td>
<td>0.0</td>
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<td><strong>Turkey</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TP1</td>
<td>13.6b</td>
<td>12.9b</td>
<td>3.9ab</td>
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<td>429c</td>
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</tr>
<tr>
<td>TP2</td>
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<td>2.7a</td>
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<td>0.5</td>
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<tr>
<td>TP3</td>
<td>5.8d</td>
<td>16.9b</td>
<td>1.3b</td>
<td>5.3b</td>
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<td>1.1</td>
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<tr>
<td>TP4</td>
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<td>11.7a</td>
<td>3.6b</td>
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<td>0.2</td>
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<td><strong>Bread</strong></td>
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<td></td>
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<tr>
<td>BP1</td>
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<td>5.4a</td>
<td>709a</td>
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<td>SD</td>
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<td>0.3</td>
<td>0.4</td>
<td>70.0</td>
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<tr>
<td>BP2</td>
<td>0.1b</td>
<td>3.2a</td>
<td>27.2b</td>
<td>1.9b</td>
<td>154b</td>
</tr>
<tr>
<td>SD</td>
<td>0.0</td>
<td>0.3</td>
<td>1.2</td>
<td>0.4</td>
<td>0</td>
</tr>
</tbody>
</table>

*Means with the same letter in a column in a food type are not significantly different p<0.05

**REFERENCES**

The effect of questionnaire administration methodology on assessing 
customer service satisfaction in a hospital cafeteria

Julianne Cavanagh, Elena Sobolev, Heather Fletcher, Mary Keith, Mikhail Terebij
St. Michael’s Hospital, Toronto, Ontario, Canada

INTRODUCTION

Customer satisfaction is commonly thought of as an evaluation of the overall purchasing experience (Pantouvakis, 2010). Excellent customer service leads to satisfied and loyal customers, whose continued patronage is essential to the success of the business and future revenues. Alternatively, disappointing customer service leads to customer dissatisfaction, which can lead to lost customers and negative word of mouth (Gilbert, Veloutson, Goodle, & Moutinho, 2004). Numerous theories have been developed to help assess the relationship between service quality and customer satisfaction. The performance only approach was chosen for this project (Gilbert, Veloutson, Goodle, & Moutinho, 2004).

OBJECTIVE

1) To assess satisfaction with customer service in the cafeteria at St. Michael’s Hospital (i.e. Marketeria) using a questionnaire.
2) Based on the results develop strategies to address areas needing improvement.

METHODS

Study Design: cross sectional survey
Phase 1: Development of the Marketeria Customer Service Questionnaire (MCSQ)
• Survey consisted of 20 closed-ended (mostly using a 5 point Likert scale) and one open-ended questions
• Questions were based on a literature review that explored customer satisfaction in the fast food sector.
• Survey was face-validated for clarity, flow and readability of questions
Phase 2: Survey implementation
• Two different modes were used to administer the MCSQ
  • verbal mode, via a face-to-face (FF) interview
  • self-administered mode via an online survey using SurveyMonkey (SM)
Phase 3: Data entry and analysis
• MCSQ responses were tallied using an Excel spreadsheet
• SPSS was used to compare the two modes of survey administration by running a chi square test

RESULTS

Figure 1. Type of customer (FF n =460, SM n = 137)

<table>
<thead>
<tr>
<th>Face-to-face</th>
<th>SurveyMonkey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff</td>
<td>Patient</td>
</tr>
<tr>
<td>Patient</td>
<td>Visitor</td>
</tr>
</tbody>
</table>

Table 1. Ranking of most important aspects of customer service (actual response rate %)

<table>
<thead>
<tr>
<th>Most valued customer service attributes</th>
<th>FF (%)</th>
<th>SM (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service speed/efficiency</td>
<td>1 (20%)</td>
<td>1 (19%)</td>
</tr>
<tr>
<td>Length of lines at food stations</td>
<td>2 (18%)</td>
<td>2 (17%)</td>
</tr>
<tr>
<td>Attire/hygiene of personnel</td>
<td>3 (14%)</td>
<td>4 (11%)</td>
</tr>
<tr>
<td>Accuracy of orders</td>
<td>-</td>
<td>3 (13%)</td>
</tr>
<tr>
<td>Friendliness</td>
<td>4 (13%)</td>
<td>-</td>
</tr>
</tbody>
</table>

Figure 2. Negative responses on Likert scale questions (% respondents who answered strongly disagree or disagree)

| Staff readily understandable         | 26 (%) |
| Knowledgeable staff                  | 21 (%) |
| Informed staff                       | 23 (%) |
| Timely food preparation              | 24 (%) |
| Food order correct                   | 22 (%) |

Figure 3. Overall satisfaction with customer service (p<0.001)

<table>
<thead>
<tr>
<th>Positive (%)</th>
<th>Negative (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FF</td>
<td>SM</td>
</tr>
</tbody>
</table>

REFERENCES


CONCLUSIONS

Both modes of administration have their own pros and cons. Those trying to measure customer satisfaction through a survey need to be aware of the biasing effects of different modes of survey administration, and their potential effects on the results.

ACKNOWLEDGEMENTS

The authors thank the Ryerson student volunteers for all their help with data collection and analysis.
Implementation of an electronic spoken menu system at St. Michael’s Hospital

Emily Elliott, Lisa Mannik, Jacalyn Goodwin, Donna Kwan, Mary Keith, Heather Fletcher

St. Michael’s Hospital, Toronto, Ontario, Canada.

INTRODUCTION

- Food is a key component of patients’ overall hospital stay satisfaction.
- Factors contributing to overall patient satisfaction with meals include food quality, choice and variety, service, and timeliness.

SUMMARY

Phase 1

Table 1. Limitations of ESMS identified during Phase 1 and correction strategies used in Phase 2.

<table>
<thead>
<tr>
<th>Limitations identified during Phase 1</th>
<th>Correction strategies used in Phase 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA is uncomfortable using the handheld device</td>
<td>DA is removed from the process; replaced with dietetic interns</td>
</tr>
<tr>
<td>Lack of DA time to visit all pilot units</td>
<td>Focused on two smaller units only</td>
</tr>
<tr>
<td>Inconsistent timing of menu collection</td>
<td>Menu collection occurred at same time daily</td>
</tr>
<tr>
<td>Patients wished to choose all tray items, not just hot entrée, beverage and dessert</td>
<td>All menu options were offered to patients</td>
</tr>
<tr>
<td>Units with complex dietary needs requested many items outside the scope of the daily menu</td>
<td>Focused on short LOS units only; these units housed patients with relatively simple dietary needs</td>
</tr>
</tbody>
</table>

Phase 2

Table 2. Mean satisfaction with food quality in patients who used the paper menu and in patients who used the ESMS.

<table>
<thead>
<tr>
<th></th>
<th>Paper Menu (Mean %)</th>
<th>ESMS (Mean %)</th>
<th>Change in Mean (%)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variety of Menu</td>
<td>64.7</td>
<td>73.6</td>
<td>+8.9</td>
<td>0.2</td>
</tr>
<tr>
<td>Presentation</td>
<td>66.3</td>
<td>69.0</td>
<td>+2.7</td>
<td>0.6</td>
</tr>
<tr>
<td>Hot Temperature</td>
<td>63.7</td>
<td>74.5</td>
<td>+10.8</td>
<td>0.1</td>
</tr>
<tr>
<td>Cold Temperature</td>
<td>70.8</td>
<td>75.3</td>
<td>+4.5</td>
<td>0.4</td>
</tr>
<tr>
<td>Taste</td>
<td>51.9</td>
<td>61.8</td>
<td>+9.9</td>
<td>0.2</td>
</tr>
<tr>
<td>Texture</td>
<td>62.8</td>
<td>61.2</td>
<td>-1.6</td>
<td>0.8</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>75.4</td>
<td>82.1</td>
<td>+6.7</td>
<td>0.2</td>
</tr>
<tr>
<td>Friendliness</td>
<td>76.5</td>
<td>84.5</td>
<td>+8.0</td>
<td>0.2</td>
</tr>
<tr>
<td>Overall Food Quality</td>
<td>65.0</td>
<td>66.7</td>
<td>+1.7</td>
<td>0.8</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS & CONCLUSIONS

- Successful ESMS implementation was possible and resulted in increased patient satisfaction.
- ESMS should be used as a menu selection tool for newly admitted patients and those who do not return a paper menu.
- ESMS is labour intensive and requires a dedicated staff position or restructuring of the current diet office staff routines.

REFERENCES

INTRODUCTION
Cancer incidence is rising among Canadian women aged 20-39 years. Breast cancer is the most common cancer found in Canadian women, affecting one in nine in their lifetimes. The World Cancer Research Fund/American Institute for Cancer Research (WCRF/AICR) report examining global evidence on food, nutrition, physical activity and cancer risk concluded that a plant-based dietary pattern is strongly associated with reduced overall cancer risk.

This diet is described by five recommendations:
1) eat mostly foods of plant-origin,
2) eat 2-5 servings of non-starchy vegetables and fruits daily,
3) eat unprocessed grains/pulses at each meal,
4) limit refined starchy foods, and
5) those whose staple diet is mostly starchy vegetables should eat enough non-starchy vegetables/fruits daily.

Study Aims
This pilot study examined participants:
1) willingness to adopt,
2) level of success in adopting, and
3) perceived barriers and benefits to adopting the WCRF/AICR plant-based diet.

METHODS
Convenience sampling was used to recruit 10 women affiliated with breast cancer risk assessment clinics to participate in three educational cooking classes based on the WCRF/AICR plant-based diet and the tenets of the social cognitive theory.

A self-administered survey captured participants’ perceived benefits and barriers of adopting the plant-based diet before and after attending the classes. Each class used a key element of the plant-based diet (vegetables and fruits, whole-grains, legumes) as a theme and included nutrition education components, demonstrations and food preparation.

Participants were given resources to support adoption of the plant-based diet (e.g., cookbook, cooking utensils, print resources, food products, a grocery gift certificate). Recipes were drawn from “The New American Plate Cookbook: Recipes for a Healthy Weight and a Healthy Life.”

RESULTS
Most participants (n=10) were 45 to 59 years old (80%), married (90%) and had some post-secondary education (90%).

Pre-Cooking Class Survey
The most frequently reported barrier to adopting the plant-based diet was lack of information. While most participants had heard of the plant-based diet (n=7), six of 10 participants wrongly believed that the plant-based diet did not include any animal foods. They reported that a plant-based diet would consist solely of plant foods, such as vegetables, fruit, grains, oils, nuts, and legumes.

Participants believed that a plant-based diet offered important benefits including feeling more content about themselves (n=7) and would be a more environmentally friendly way of eating than an animal-based diet (n=8). Perceived benefits outnumbered perceived barriers reported.

Post-Cooking Class Survey
Participants reported more perceived benefits than barriers after partaking in the cooking classes. “Lack of information” and “lack of personal willpower” were no longer reported as barriers to adopting the diet. The key perceived benefits of the plant-based diet were its high vitamin and mineral content (n=7), palatability (n=9), and healthfulness (n=9).

Qualitative Findings
Participants reported several benefits to the plant-based diet, including the belief that it would be easy to follow, uses common ingredients, is fast to prepare, and that the recipes are simple to make. The response to the cooking class format was unanimously positive. They reported that the foods that they made and tasted were delicious and uncomplicated.

CONCLUSIONS
The results of this study suggest that participants misunderstood the nature of a plant-based diet. Similar to other studies, the main barrier to adopting a plant-based diet among our participants was lack of information. Educational resources on the plant-based diet could be developed to better meet the information needs of women who may be at high risk of developing breast cancer.

The cooking class curriculum should integrate a concise yet comprehensive description all of the WCRF/AICR dietary recommendations for reducing cancer risk. Future studies could measure the effectiveness of the cooking class participation on behaviour change.

REFERENCES
Perceptions of Health and Consumption of Whole Grains in Aging among Manitoba Consumers: The Manitoba Consumer Monitor Food Panel

Christina Lengyel, PhD, RD, Tammi Feltham, PhD, Gustaaf Sevenhuysen, PhD and Jocelyne Gaudet, BSc, PHEc
Faculty of Human Ecology, University of Manitoba, Winnipeg, Manitoba, (www.mcmfoodpanel.ca)

OBJECTIVES

To explore the relationships between health perceptions, whole grain consumption and aging among participants in the Manitoba Consumer Monitor Food Panel (MCMFP).

RESULTS

- 78.2% of panelists assessed their overall health as 5 or greater on a 7-point scale (7=excellent).
- 77.3% of panelists assessed the healthiness of their diet to be 5 or greater on a 7-point scale (7=very healthy).
- Of the respondents, 46% consumed 2 or fewer servings of whole grains per day.

Correlations

- Those who considered food and nutrition to be important in maintaining or improving their health were significantly more likely to consume more daily servings of whole grains ($\chi^2=80.7$, df=30, p<0.001) and were significantly more likely to be older ($\chi^2=62.9$, df=36, p=0.004).
- There was a significant positive correlation between age and consuming more daily servings of whole grains ($r=0.035$, p=0.048).

CONCLUSIONS

- Canada’s Food Guide recommends that half of the recommended servings of grain products each day be whole grain, which translates to 3-4 servings.
- Many panelists are not consuming enough whole grains even though they rate the healthiness of their diet as very healthy.

IMPLICATIONS

- More nutrition education needed among younger people in terms of Canada’s Food Guide recommendations for whole grain foods in their diets.

THE MANITOBA CONSUMER MONITOR FOOD PANEL (MCMFP)

- A longitudinal panel established in 2010 in Winnipeg, Manitoba
- Gathers opinions about consumer attitudes and perceptions towards food and health through the panelists’ opinions, preferences and experiences
- For this analysis, we examined demographics, whole grain consumption and health perceptions.
- Frequency, chi-square analysis and correlations were performed using SPSS 19.0.

BACKGROUND

- Consumption of whole grain foods is important for a healthy diet.
- Research shows that eating whole grain foods is linked to a reduced risk of developing heart disease, certain cancers and type II diabetes.

METHODOLOGY

- In spring 2011, the first survey of the MCMFP was administered via online and mail to 4153 panelists in Manitoba.
- The survey asked baseline questions about food and health through the panelists’ opinions, preferences and experiences.
- For this analysis, we examined demographics, whole grain consumption and health perceptions.
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THE MANITOBA CONSUMER MONITOR FOOD PANEL (MCMFP)

- A longitudinal panel established in 2010 in Winnipeg, Manitoba
- Gathers opinions about consumer attitudes and perceptions towards food and health
- Measures and identifies changes in consumer opinions over time and across consumer sub-groups, and the factors determining such changes and differences
- Contains 4000 panelists representing individuals over 18 years of age residing in Winnipeg (n=2000) and outside of Winnipeg (n=2000)
- Currently, the MCMFP has administered 6 surveys since Spring 2011
- This study has approval from the University of Manitoba Research Ethics Board
- The research team acknowledges funding from Growing Forward, a federal-provincial-territorial initiative and the ongoing dedication of the panelists
Putting health literacy into practice through a dietetic internship program

Tracy Hutchings, MSc(T), RD, Patient Education Specialist & Helen Toews, MSc, RD, Dietetic Internship Coordinator
Hamilton Health Sciences, Hamilton General Hospital, 237 Barton Street East, Hamilton, Ontario, Canada, L8L 2X2

Introduction

Dietitians have strong scientific backgrounds in foods and nutrition. In order to help people make wise food choices to improve their health, dietitians must also be skilled in health literacy (Boehl, 2007; Clayton, 2010). As a strategy to improve the health literacy skills of health professionals in Canada, the Report of the Expert Panel on Health Literacy (Rootman and Gordon-El-Bibbety, 2008) recommends making health literacy a mandatory component of service provider curricula, professional continuing education and professional registration and certification. Health literacy training for health care professionals is also included in the U.S. Department of Health and Human Services, National Action Plan to Improve Health Literacy (2010).

Program description

For professional registration, dietitians must complete a supervised practical experience from an accredited dietetic internship program (Dietitians of Canada, 2010) following a Bachelor’s degree. The Dietetic Internship Program at Hamilton Health Sciences accepts 8 applicants annually. This program is unique from other dietetic internship programs in Canada as the curriculum includes two educational experiences designed to improve the health literacy skills of its dietetic interns; a health literacy workshop and completion of a nutrition patient education project. The Dietetic Internship Coordinator collaborates with one of the hospital Patient Education Specialists to coordinate and deliver these learning experiences.

Objectives of the workshop and nutrition patient education project:

1. Define health literacy and its related implications to practice.
2. Evaluate the health literacy needs of individual patients and families and the health literacy barriers that may exist in practice.
3. Learn and apply practical strategies to improve health literacy.
4. Identify and follow Hamilton Health Sciences’ process for developing patient education materials with an inter-disciplinary team including patients and families, as outlined in the resource, Writing Health Information for Patients and Families (Wizowski, Harper and Hutchings, 2008).

Outcomes/impact

Effectiveness of the health literacy components of the program are measured in terms of competency assessment, nutrition patient education project completion and student evaluation. Upon completion of the program, the dietetic intern evaluations consistently rate the health literacy components of the program as beneficial; they learn about health literacy and are able to apply health literacy strategies such as, clear verbal communication, plain language and clear design. The advisory dietitian to the nutrition patient education program also benefits as the created patient education resource supports their teaching, is evidenced-based and easy for patients and families to read, understand and use.

Implications for policy & practice

Integrating health literacy into the curriculum of the Dietetic Internship Program at Hamilton Health Sciences contributes to the implementation of the Report of the Expert Panel on Health Literacy (Rootman and Gordon-El-Bibbety, 2008) specifically, "to make health literacy a mandatory component of service provider curricula, professional continuing education and professional registration and certification.” The success of this unique program provides a best practice model for dietetic internship programs across Canada.

References

Exploring perceptions of mental health and illness among nutrition students

Eric Ng, MPH, RD1, Joy Okafo, BASc2, Jacqui Gingras, PhD, RD2

1Canadian Mental Health Association Ontario, Toronto, Ontario. 2School of Nutrition, Ryerson University, Toronto, Ontario.

Objective
To summarize current literature on the perceptions of mental health and illness, and mental health literacy education among students in health professions in order to inform education practices and further research.

Why does it matter?
One in 5 Canadian adults will experience a mental illness in any given year (MHCC, 2012). People with mental illnesses are at higher risk for chronic physical conditions, such as diabetes and cardiovascular diseases (CMHA ON, 2008). People with mental illnesses are also at higher nutritional risk (Dietitians of Canada, 2006).

Healthy eating can contribute to both physical and mental health. Dietitians will inevitably be involved in the care of people with mental illnesses and play a role in promoting the health of this population, increasingly outside traditional psychiatric institutional settings. It is essential that dietitians be adequately prepared to provide care to this client population.

Dietitians have reported burnout from balancing multiple demands and pressures in the workplace (Gingras, De Jonge, & Purdy, 2010). Mental health self-care is an important component to managing stress and avoiding burnout for dietetic professionals and trainees.

Methods
Systematic literature review using the following databases: Nutrition and Food Sciences, Academic OneFile, Proquest Research Library.

Search terms include: perceptions, attitudes, mental illness, students, health professions, mental health literacy

What is Mental Health Literacy?
“Knowledge and beliefs about mental disorders which aid their recognition, management or prevention (Jorm et al, 1997).”

Results
Current literature (Table 1) revealed studies on mental health literacy and education among undergraduate students in medicine, pharmacy, nursing, physiotherapy, social work, and occupational therapy, from across the globe. However, there were no Canadian studies. Also, no studies involving food and nutrition students and trainees were identified.

Studies have shown reduction in mental health stigma and improved confidence of students in providing care to patients with mental illnesses after attending mental health training or education. Training and prior experience were found to influence attitudes and perceptions about mental illness.

Studies have not demonstrated long-term effects in the reduction of stigmatizing views. Current literature is unclear about which format, duration, and frequency of the education or training is most effective. Studies are based on self-reported surveys and are challenging to find an appropriate control group.

Implications & Future Directions
Further research is needed to better understand dietetic students’ perceptions toward mental illness and awareness of mental health self-care.

Engaging students about the connections of mental health and nutrition and their learning needs can improve confidence and preparedness in caring for patients with mental illnesses as well as promote readiness for the demands of dietetic education and practice.

References


Learning and socialization experiences of Black Canadian students in undergraduate dietetic programs

M Osman\(^1\), E Vettese\(^1\), J Gingras\(^1\). \(^1\)Ryerson University, Toronto, ON.

### Background
- A study conducted of African American dietetic and non-dietetic students have revealed a myriad of beliefs held by students in regards to pursuing a career in the dietetic field.\(^1\)
  - These perceptions included the need to possess a certain physical appearance or body size and to follow "healthy" eating patterns which were deemed to be irrelevant or at odds with beliefs traditionally held by African American communities.\(^1\)
- The educational experiences of Black Canadian students would expect to mirror that of their African-American counterparts, yet the latter has garnered little research attention.\(^2\)

### Research Questions
- What are the experiences of Black Canadian students and graduates of undergraduate food and nutrition programs?
- How do these experiences shape their future perceptions of their role in the dietetics field?

### Research Objectives
- To explore the perceptions held by Black Canadian students about the field of dietetics as a potential career path, including the sources of information regarding the field prior to entry.
- To gain an understanding of how Black Canadian students, upon entry into dietetic programs, relate to the culturally-relevant subject matter regarding health, food, and nutrition in the dietetic curriculum.
- To utilize the experiences of students to provide an outline of how undergraduate programs can implement initiatives promoting diversity and inclusivity into the curriculum and available support systems.

### Methods
- Given the lack of literature to describe Black Canadian dietetics students, a literature review was conducted using the EBSCO Host database (Academic Search Premier), Academic OneFile, and Proquest Research Library.
  - Key words included "black nursing students", "black dietetic students", "black Canadian university students", and "diversity in dietetics".
- Literature revealed that Black Canadian students have different perceptions of health-related studies than their non-Black peers.
- Semi-structured interviews will be conducted to gain better understanding of Black Canadian dietetic students' experiences leading to and throughout their degree and the factors influencing their professional socialization process.
- Participants will also have the opportunity to convey their experiences through digital stories.

### Results & Next Steps
“You must do the thing you think you cannot do”:
Enhancing capacity for critical dietetic inquiry
M. Poulney1 & J. Gingras1, 1Ryerson University, Toronto, Ontario

Purpose

The Scholarly, Research, and Creative Activities (SRC) Team was created two years ago to enhance undergraduate students’ capacities to conduct critical dietetic inquiry. Building upon this experience, the SRC Team was evaluated to determine the effectiveness of this model of training and to develop creative new ways to engage in practice-based research.

Process

Fifteen team leaders and 24 student researchers completed a six-item, open-ended survey regarding their experiences as SRC team members. Topics addressed by the surveys included skill development, learning opportunities, and the respondents’ perspectives of practice-based research. Responses were compiled to identify common themes and potential strategies to enhance future inquiry.

<table>
<thead>
<tr>
<th>Theme</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased confidence in conducting research</td>
<td>“I learned SO MUCH by being part of this research team. When I joined the SRC Team...I had absolutely no idea how to conduct qualitative research project, how to interview participants...and so on. Now I am a lot more confident that I can do all of these.”</td>
</tr>
<tr>
<td>Intention to pursue future research opportunities</td>
<td>“[The greatest reward of the SRC Team is] increased confidence in my own ability to do research, critical thinking, analytical thinking, writing...wider range of career options for the future – one that includes research!”</td>
</tr>
<tr>
<td>Supportive team environment</td>
<td>“Having the support from a group of people who were all able to offer different perspectives and ideas to my projects...to share their experiences and be supportive of one another.”</td>
</tr>
<tr>
<td>Team participation as a means to encourage skill development</td>
<td>“I developed important skills through this experience re: oral and written communication skills, research skills, leadership skills.”</td>
</tr>
</tbody>
</table>

Project Summary

Overall, team members indicated that being part of the SRC team was worthwhile and enriched their learning beyond the formal dietetic curriculum. Many respondents indicated that prior to their involvement with the SRC team, they were either unaware or uninterested in conducting research. Some even believed they were incapable of leading a project and mentoring more junior students. These students benefitted most from the supportive environment the team provided.

Team members noted that they found the team-based approach broadened perspectives and encouraged deeper learning. Afterwards, many expressed that they intended to pursue dietetic research in their future practice. SRC team members were also encouraged to present research at conferences and many noted that they felt better prepared for future educational opportunities and professional practice given this exposure.

Recommendations & Conclusions

This team-based model is an effective method to supplement dietetic education and the leadership opportunities for students may serve as preparation for their roles as practice-based researchers, educators, and professional practice leaders.

More effort to enhance capacity for critical dietetic inquiry is warranted given the desire for promoting dietetic practice-based research. Based on the team members’ positive attitudes towards conducting research following their involvement with the SRC team, this format of inquiry may be an appropriate means by which to introduce undergraduate students to dietetic research. Adequate resources are required to effectively manage and develop such a team.
Male Students’ Perspectives on Their Food and Nutrition Education

Shari Beltran1, Elizabeth Garrett2, Jacqui Gingras PhD, RD1
1 School of Nutrition, Faculty of Community Services, Ryerson University, Toronto, Ontario; 2 School of Nutrition and Dietetics, Acadia University, Wolfville NS

BACKGROUND
Food and nutrition practice, of which dietetics is one aspect, is predominated by women; over 98% of practitioners are female (1, p. 23). Initiatives to increase representation among men are currently underway in the United States (2). One recommendation from the American Dietetics Association’s “Minority Report” to increase effective outreach, recruitment, and retention of male students was to increase educators’ understanding of learning styles among men (2). With more information about men’s learning and practice experiences, initiatives to enhance representation of men can be developed whereby men can be effectively recruited and retained in educational programs preparing them for professional practice.

OBJECTIVE
To examine male students’ perspectives of their food and nutrition education experiences to identify issues related to education and retention that require further study. This research is a continuation from a study of male alumni perspectives on food and nutrition education and practice (6).

METHODS
• Male students were recruited via posters placed at Ryerson University to complete a 12-item survey consisting of open and closed ended questions.
• The potential for an in-person interview was available to discuss any topics that the participant felt were not captured by the survey. More specific questions were asked of the interviewee at this time. The participation in the interview was completely optional and contact information was given at the end of the survey to determine if the student was interested in the interview.
• The surveys and interview data were then collected and analyzed using a comparative method of analysis (4). Comparison of similarities and differences within and between participants’ stories were used to find common themes among male participants (3).
• Researchers employed an emergent or pilot design whereby a small sample was asked about their experiences in order to identify priority issues for further inquiry (3-5).

RESULTS
Four male students aged 23-25 years (2 first years and 2 out-of-phase students) completed the survey and two were interviewed.

Personal Interests in Nutrition
• Two students shared personal weight loss as the main reason for their initial interest in nutrition. After applying what they learned to their lifestyles, a passion for the field led them to pursue dietetics in their education.
• One participant got “hooked” on learning about nutrition and food advice after recognizing the inadequacy of his dietary habits and wanted to change it.
• One student took an elective course in nutrition and enjoyed it. After learning about potential jobs in the field, he enrolled at Ryerson.

“In growing up, I was overweight and experienced... weight, mental health and self-esteem issues. Nutrition fascinated me and ... I began to research intensely and apply my findings into my own lifestyle. I choose nutrition because I am extremely passionate about it and it is intrinsically linked to my way of life.”

Diverging Career Goals
• Three students indicated that their initial career goal when they entered the program was to become a Registered Dietitian. The same students also shared their budding interests in other career options related to food service management, psychology, and food security.
• One participant’s primary and current goal is to pursue medicine with dietetics as a backup.

“When I first entered the program my original plan was to... become a dietitian... but between the physiology, food science, and research courses... I’ve realized my passion includes nutrition but is not limited to it.”

Positive Minority Status
• All participants felt they “stood out”; recognized and remembered by both professors and students.
• Two students felt their minority status could positively impact their internship application process based on what they have heard from other students and male RDs.

“If you are singled out, you are talked about more, noticed more... people know you better, you make stronger connections... you have more networking going on so I think overall, it is a benefit to be one of the minority.”

Role Models and Diversity
• Half the participants said having a successful male RD as a mentor/role model would provide a positive influence and could encourage recruitment of more men into the program.
• One student shared that having more male RDs would give the profession a “balanced perspective” because “It’s good to have both sides.”
• One participant felt that the lack of diversity in the field gave the impression that the profession is “feminine” and as a result, not as “respected as other professions.”

LIMITATIONS
The data presented in this research is only applicable to the specified participants. More research is needed to further expand the transferability of data collected and analyzed.

CONCLUSION
Understanding male students’ perspectives has the potential to enhance recruitment of more men into dietetics as well as retention, which could lead to a more diverse profession (2).

FUTURE RESEARCH
The third phase of this research will involve the recruitment of female students of the program. They will be asked to share their perspectives and experiences regarding the gender divide in food and nutrition education.

In the fourth phase, staff and faculty members will be recruited to discuss their experiences and perspectives of the gender differences in food and nutrition education and practice.

REFERENCES
2. ADA-Diversity Committee. (2000). Update on the minority recruitment and retention project. JADA, 100(8), 888-890.

This project was funded by Ryerson University’s Work Study Program.
FEEDING BABIES AND TODDLERS: what do Ontario mothers understand about current nutrition guidelines?


OBJECTIVES:
Inadequate nutrition can have long-lasting effects on babies’ development, and in the case of iron deficiency, can have serious implications. Conveying relevant nutrition advice to new mothers requires understanding their current knowledge and the challenges they face when feeding their babies.

RESULTS:
- 97% of mothers have a concern about feeding their infant or toddler
- 77% understood that exclusive breastfeeding should continue for at least six months
- 58% did not know that breastfeeding should continue beyond 12 months
- 43% did not know at what age solid foods should be introduced
- 87% did not know that iron rich foods should be the first solid foods introduced
- 95% did not know that meat and alternatives should be introduced as first foods
- 77% did not know that cow’s milk can be safely introduced beginning at nine months of age
- 17% did not know that whole cow’s milk is the most appropriate milk for toddlers under two years of age
- over 40% did not know that plant-based beverages (e.g., soy, rice and almond beverages) are not appropriate for children younger than two years
- 77% did not know that it is inappropriate to trick children into eating a healthy food
- only 30% of mothers would consider consulting a Registered Dietitian for information regarding infant and toddler feeding; doctors are by far the preferred source of information (90%), followed by relatives (64%), the internet (64%), books (59%), and friends (59%)

METHODS:
In the Spring of 2011, five hundred, 20 minute Internet-based surveys, which included five open ended questions, were conducted among mothers of infants and toddlers (aged 3-36 months). Participants represented a range of socio-economic status, with half of the sample residing in the Greater Toronto Area, and the other half residing elsewhere in Ontario.

IMPLICATIONS & CONCLUSIONS:
Results identified knowledge gaps and informed key nutrition messages to educate mothers of infants and toddlers about offering appropriate foods at the right time for their child’s optimal development.
Developing a “Health At Every Size®” collaborative practice support group.

G Kasten¹, J Rankin², N Spencer³, A Waisman² ¹Spectrum Health, Vancouver BC. ²Vancouver Coastal Health, Vancouver, BC. ³Providence Health Care, Vancouver BC. [E].

Purpose:

**Health at Every Size® (HAES)** is a health-centred approach advocating for health as a value, not weight as a goal.¹ This includes: recognizing health and well-being as multidimensional; promoting all aspects of health for people of all sizes; promoting eating that balances individual nutritional needs, hunger, satiety, appetite, and pleasure; and promoting individually appropriate, enjoyable, life-enhancing physical activity, rather than exercise focused on a goal of weight loss.

HAES practitioners recognize that weight stigma causes unintended harm, so respect for a diversity of body shapes and sizes is foundational. Weight stigma translates into inequities in employment settings, health-care facilities, and educational institutions, often due to widespread negative stereotypes that overweight and obese persons are lazy, unmotivated, lacking in self-discipline, less competent, noncompliant, and sloppy.²

HAES has been associated with improved physiological measures, health behaviours and psychological outcomes, and has achieved long term health outcomes more successfully and without adverse consequences compared with traditional weight loss treatments.

Challenges

"As someone practicing on my own, in a physically separate space away from my colleagues, I did not have the day to day support, or opportunity for discussions on implementing a new practice model."

**Outpatient Dietitian**

"How can I not weigh my clients? How do I give up what was once a foundation of my practice?"

**Outpatient Dietitian**

"How will the Doctors feel about this practice, as they read my charting?"

**Primary Care Dietitian**

Positive Outcomes:

"Just the opportunity to talk to people, to find out what they’re doing, to think about how, or even whether that will fit in my practice – that has been the real advantage of coming to these meetings."

**Clinical Dietitian**

"It was nice to know that others were struggling with the same challenges and that you weren’t alone. I could see... the support of the group to help you get the courage and the push to try something new when things look impossible."

**Public Health Dietitian**

"I love having the opportunity to meet away from work, with people I don’t know well but who share a commitment to excellent dietetic practice. It makes me feel more confident about pushing myself to explore working at a deeper level. Of course, my patients benefit, but the personal benefit is that I am more stimulated, more challenged and less likely to burn out."

**Outpatient Dietitian**

"Initial results of the HAES-based paradigm show some promise in offering a more realistic and long-term approach to weight and lifestyle." (p. 43)

**Miller and Jacob. Obesity Review (2001) 2: 37-45**

Outcome at 1 year

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Diet</th>
<th>HAES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>-5.9 kg</td>
<td>0.3 kg</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>-0.85 mmol/l</td>
<td>-0.82 mmol/l</td>
</tr>
<tr>
<td>LDL-cholesterol</td>
<td>-0.31 mmol/l</td>
<td>-0.23 mmol/l</td>
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<tr>
<td>Triglycerides</td>
<td>-0.53 mmol/l</td>
<td>-0.48 mmol/l</td>
</tr>
<tr>
<td>Systolic BP</td>
<td>-8.2 mmHg</td>
<td>-4.5 mmHg</td>
</tr>
<tr>
<td>Dropout Rate*</td>
<td>42%</td>
<td>8%</td>
</tr>
</tbody>
</table>


Challenges

"As someone practicing on my own, in a physically separate space away from my colleagues, I did not have the day to day support, or opportunity for discussions on implementing a new practice model."

**Outpatient Dietitian**

"How can I not weigh my clients? How do I give up what was once a foundation of my practice?"

**Outpatient Dietitian**

"How will the Doctors feel about this practice, as they read my charting?"

**Primary Care Dietitian**

Process:

The authors are dietitians practicing in isolation in outpatient and primary care. Without peer colleagues with whom to have reflective conversations on practice, using an innovative practice model has been challenging. Concern centred on the challenges of providing individualized counselling to clients, grounded in HAES, while working within a culture which continues to promote the weight-loss-centred paradigm. We each engaged in actively seeking other HAES practitioners and found such colleagues through individual conversations, email lists and mutual acquaintances.

Project Summary:

An introductory meeting was called and, in discussion, it was decided that on-going practice support and dialogue would enhance our ability to optimize using the HAES approach.

Recommendations & Conclusions:

We encourage dietitians working in isolation, pursuing HAES and other new practice approaches, to seek others and collaborate, forming approach-based practice groups. This ensures peer support for the challenges of implementing innovative practice models.


Interprofessional narratives: Stories as a means for enhancing learning in health and community care

Role of Narrative in IPE

“Humans have a symbiotic relationship with story in that we are both informed by story and formed by story” (Lewis, 2011)

Narrative is a means toward deeper connection with and greater knowledge of self and others in a socio-cultural context. It is an integral part of understanding self in relation to others. Through narrative the following is possible: 1) one can experience embodied knowing; 2) one can learn facts as well as social impacts; 3) one can be moved towards action rather than simply understanding.

In a health care and community settings, narrative is an important medium for conveying factual information and fostering relationships between health care practitioners and those seeking their services. Hence, we believe that narrative and IPE are valuable pedagogical approaches to learning for students studying health and community care. As health and community care practitioners, we can benefit from sharing, writing, exploring and making meaning of narratives. By engaging ourselves, our community partners, and our students in this IP Narratives course, we anticipate that the relational epistemologies will help to enrich learning for all.

Question

How is an IP narratives course curriculum developed by those with previous teaching, research, and/or community experience in non-IP narrative courses?

Objectives

1. To create a new and sustainable Interprofessional Education (IPE) opportunity for students in the Faculty of Community Services at Ryerson University
2. To engage in scholarly inquiry related to teaching and learning
3. To promote narrative teaching and research among faculty members and community partners

Design and Methods

• Course facilitators included faculty members from three schools in the Faculty of Community Services at Ryerson University (Nutrition, Nursing, and Disability Studies), along with representatives from two community groups (Springtide Resources and Centre for Digital Storytelling); all of who possess experience in narrative teaching and research.
• Students from a variety of departments participated in the course (Nutrition, Nursing, Disability Studies, Child and Youth)
• Students (26), faculty (7), and community partners (2) participated as co-learners during the course to expand understandings of narrative within interprofessional contexts.

Curriculum Development

• Application of a context-specific curricular framework as described by Iwasiw, Goldenberg and Andrussyszyn, 2009 as well as an IPE curricular framework as described by Orchard and Oandason, 2010.
• Focus on how narrative forms are used by community partners and how these forms support the work of their organization and members of the community

Community Partners

• Representatives from partnering communities provided multiple benefits to aspects of course development:
  • Community narrative resources were built into the course curriculum
  • Members of the community agencies co-presented as “community faculty” working alongside faculty members to ensure unique interprofessional pedagogy within seminars

Course Objectives

1. Identify and apply key concepts of narratives and storytelling as well as methods, ethics and limitations of narratives and storytelling.

Course Themes

1. Identify and apply key concepts of narratives and storytelling as well as methods, ethics and limitations of narratives and storytelling.

2. Narrative stories and critically reflect on the ways in which stories are produced as individual expressions in professional situations and in teaching-learning contexts.

3. Explore interprofessional communication and narratives as tools to facilitate holistic approaches to health and community service.

4. Critique narrative discourse related to vulnerability, power, and culture of storytelling.

5. Identify, examine and critique the competencies of interprofessional collaboration in health and community care practice in relation to narratives.

Student Feedback

Class #1

“Why would nutrition students be here?”
“What is the point of interprofessional education?”

Class #6

“Now I understand [IPE]. I can see our similarities and the importance of IP patient-centred care.”

“Using a narrative approach really brings the human dimension into healthcare.”

Implications and Future Directions

• Narrative methods facilitate gathering of data and measuring impacts that are not accessible through quantitative methods
• Individuals have the potential to actualize all of the IPE competencies and advance collaborative health practice through an interprofessional narratives course.
• Individual experiences bring people together through sameness and difference which has tremendous potential for interprofessional collaboration
• Future research should focus on student’s experience of the course, and how the course influenced their own future interprofessional practice.
Unveiling the emotional distress of not attaining a dietetic internship in Ontario

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Introduction

• Obtaining dietetic licensure in Ontario, Canada requires completion of a four-year accredited undergraduate degree in nutrition and a one-year, post-graduate internship or a combined Master’s degree program.

• Dietitians of Canada received 250-315 unique applications for the 82 post-graduate internship positions in Ontario (M. Wyatt, personal communication, November 17, 2009). The discrepancy between the demand for and availability of internship positions means that each year less than half of those who apply receive a position.

• Not securing an internship position is known to affect individuals’ well-being; however, no known qualitative research has told the stories of unsuccessful applicants.

Research Question:
What are the lived experiences of applicants’ who apply for a dietetic internship in Ontario and who are unsuccessful at least once?

Methodology: Qualitative Design
• Phase II of a mixed methods study (1).
• Data was collected by conducting one-on-one semi-structured telephone interviews that lasted approximately 60 minutes.
• Recruitment via Brescia, Guelph, and Ryerson; Dietitians of Canada Student Network; and Ontario Home Economists in Business.
• This research was approved by each university’s respective Research Ethics Board.

Question & Methods

Results

Sample Characteristics
• Interview participants (n=15) had submitted an unsuccessful application to an Ontario-based internship program at least once.

• Participants’ experiences successively unfold in four phases that are characterized by increasingly heightened emotional peril.

Theme 1: Naïveté
• Participants said they wanted to become dietitians, but that they were generally unaware about the work that dietitians do and the limited availability of internship positions.

“I was pretty naïve when I went into the program. Other than my little experience with the dietitian in the factory, I really didn’t even know what a dietitian was.”

Theme 2: Competition
• By their senior years, participants noted being aware of the likely possibility that they would not receive an internship position.

• Competition among peers arose as students vied for the marks and experiences that would set them apart from their peers (2).

“...because there are only are so many internship spots...everyone was fighting for that volunteer spot, everyone was fighting for that something that kind of made them stand out from everyone else.”

Theme 3: Devastation
• The peak of participants’ emotional turmoil occurred as interview and internship offers were being announced.

• Not receiving an internship position despite their efforts made participants feel rejected and took a toll on their self-esteem and self-confidence.

“At school it was difficult because most of my friends got a position and to a certain degree there was some sort of hierarchy that was built...they were ahead of me and I was still behind.”

Theme 4: Frustration
• The final stage occurred after intern selections were announced.

• Participants attributed their frustration to various aspects of the application and selection process as well as uncertainty about their future career steps.

“I felt a lot of ‘now what?’ Now what do I do? I felt cut loose….You’re on your own now. There was no real help or guidance. What do I do in the meantime? I have just been rejected...How do I mentally deal with this?”

Key Findings and Implications

• Qualified food and nutrition students who do not receive an internship are negatively impacted through the internship application and intern selection process.

• Since students carry their learning and experiences gained during their education and training with them as they enter practice (3, 4) it is likely also having an impact on the culture of the dietetic profession and may hinder its future growth and vitality.

Greater support for unsuccessful applicants is needed through:
• Open communication regarding internship application and selection process.
• Implementation of career advising services to offer information about alternative paths that do not require RD licensure.

Conclusion

• The current model of dietetic education and training in Ontario causes lasting distress to applicants.

• There is a need for career and emotional support after an unsuccessful application year.

• Recent research with internship coordinators (5) and successful applicants indicates that the current existing model for dietetic education and training in Ontario has caused harm to some.

• Further research is required as to what keeps this model in place and the potential impact of competition on the practitioners and culture of the dietetic profession.

References
The experiences of participants taking part in the “Strive for Five at Home” cooking workshop series: a descriptive multi case study design

Keira Magee, Stacy Hanninen PDt MSc, and Joanne Llewellyn PDt MAHN
Acadia University Graduate Dietetic Internship Program

Purpose
To learn more about the specific experiences of participants at “Strive for Five at Home” cooking workshops and to share the findings with key stakeholders so that they may be used to inform future cooking workshop development.

Methods
This was a descriptive multi-case study design that described the specific experiences of participants of the “Strive for Five at Home” cooking workshop series.

Demographics
• Low income
• Low literacy
• Rural location
• Young families

Qualitative Data
• Participant and facilitator questionnaires
• Researcher observation
• Reflective journaling

Data Analysis
• Generation of themes and sub-themes
• Memo writing
• Between-method triangulation
• Peer debriefing

Results and Discussion

“Strive for Five at Home” Cooking Workshop Series

Figure 1 shows the themes that carried over the three cooking workshops and their respective sub-themes.

This research demonstrates the importance of cooking workshops to utilize recipes that are different yet practical for participants, allow participants to decide which recipe to create, and have participants sample recipes made during the workshop. Time should be allotted for introductions, to mingle and explore with others, and a communal meal and discussion; all while creating a fun, home-like environment.

Previous research has suggested that behaviour change post-workshop improves with positive participant experiences, and this research helps frame what constitutes a positive experience for participants. Dietitians can use this research to develop client-centred cooking workshops that provide a positive experience for participants and consider participants as a whole person, in order to improve the overall impact of cooking workshops programs.

Recommendations

Exposure
• Use recipes that are different, but practical for participants
• Let participants choose their recipe
• Have participants sample the recipes

Social
• Schedule time for a communal meal and group discussion
• Spend time on introductions
• Give participants space to mingle and explore
• Try to create a home-like environment

Future Directions

Research that looks at participants’ experiences and behaviour outcomes
Focus groups and/or interviews at the end of workshops

References