

CANADIAN FOUNDATION FOR DIETETIC RESEARCH

CFDR Research Showcase 2020, Late Breaking abstracts

Unfortunately, the CFDR Research Showcase that was scheduled to be held at the Dietitians of Canada conference in June 2020 in Saskatoon was not held due to the COVID-19 pandemic.

Late Breaking abstracts from 30 authors were accepted for publication on the CFDR website. These abstracts represent a wide variety of practice-based nutrition research projects in Canada.

On behalf of CFDR, I would like to thank the members of the Late Breaking Abstract Review Committee: Leslie Andrade (University of Waterloo), Elaine Cawadias (retired, Ottawa), Pauline Darling (University of Ottawa, Co-Chair), Laura Forbes (University of Guelph), Carla D'Andreamatteo (consultant, Winnipeg), Grace Lee (Toronto General Hospital), Christine Nash (Toronto General Hospital), Lee Rysdale (Northern Ontario School of Medicine).

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Nutrition and Health Education

Knowledge, Attitude and Practice of Physicians Regarding Periconceptional Folic Acid

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Introduction: Canadian expert guidelines recommend low-risk women to consume a daily multivitamin supplement containing 400- μ g of folic acid (FA) to prevent neural tube defects. Physicians promote appropriate FA intake; however, mandatory food fortification coupled with intake of prenatal vitamin/mineral supplements (PVS), mostly containing ≤ 1000 - μ g-FA, has resulted in an unprecedented shift in pregnant Canadian women's folate status.

Objectives: This study assessed the knowledge, attitude and practice (KAP) of physicians regarding periconceptional FA recommendations, intake and health related outcomes.

Methods: A cross-sectional study was conducted in Ottawa from August 2018 to May 2019. A survey was developed to capture the KAP of 77 physicians toward the expert guideline to address the discrepancies between practice and current recommendations. General linear models and Pearson correlations were used to assess the associations between KAP-scores and differences between participants' characteristics.

Results: Only half of physicians knew the correct dose and duration of FA for low-risk women. Approximately 70% were unsure of, or unfamiliar, with the most recent guidelines and 60% of physicians most often recommend a ≤ 1000 - μ g-FA supplement. Knowledge score 1 (KS1), which related to low-risk women was associated with physicians' attitude toward believing that most PVS contain the recommended amount of FA ($p=0.004$). Significant correlations were also found between KS1 and the total practice score (TPS) ($r=0.45$, $p<0.0001$) as well as between the total knowledge score and TPS ($r=0.38$, $p = 0.0007$).

Conclusions: Our findings show that physicians lack knowledge regarding periconceptional FA. Despite most physicians being unsure or uncomfortable recommending PVS that are not in line with recommendations, lacking knowledge and an accessible 400 μ g-FA PVS, enables a contradictory practice.

Significance: Registered Dietitians should take a leading role in educating their clients and colleagues, particularly physicians consulting with pregnant women and those of childbearing age, on the appropriate dose and duration of FA-supplement intake during the periconceptional period.

An Evaluation of the BALANCE Program: Nutrition Education and Skill Building for Healthy Behaviour Change

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Introduction: The BALANCE program is a family-based pediatric obesity treatment that includes interventions based on health outcomes rather than changes in weight and body mass index.

Objectives: To determine if the BALANCE program's nutrition education and skill building components are effective in supporting parents in adopting healthy eating behaviours in their children, aged 5-17.

Methods: An adapted Public Health Ontario (PHO) Health ChAMPS (Health of Children and Measures of Parental Support) survey was used; the BALANCE version had 13 questions and legal guardians were asked to complete the pre- and post-survey online using Qualtrics©. Data collection occurred at intake in August 2019 and 18 weeks later at the final weekly session. Quantitative analysis involved comparing response averages pre and post-intervention and t-tests for statistical significance.

Results: Twelve of 24 participants consented to the study; five surveys were completed pre and seven completed post-intervention. Positive behaviour changes included: having fruits and vegetables at home; increased intake of vegetables/fruit; child involvement in food preparation; encouraging breakfast; decreased barriers to healthy eating (e.g. income, busy schedules and picky eating); enforcing rules about eating together; eating away from the TV; and, eating vegetables/fruit. Pre-program barriers related to knowledge, busy schedules and eating behaviours whereas post-program included difficulty implementing knowledge due to physical, financial, time and motivation issues. No statistical differences were seen due to small sample size, low response rate and different participants completing pre- and post-surveys.

Conclusions: Due to study limitations, the program's ability to elicit healthy behaviour changes could not be evaluated. Continued recruitment and evaluation with improved survey methods will inform program effectiveness.

Significance: Ongoing evaluation can inform development of obesity intervention programs and support curriculum development of the BALANCE program. The diversity of reported barriers to implementing behaviour change emphasizes the importance of treating pediatric obesity with a collaborative multi-disciplinary team.

Knowledge and Awareness of the Ketogenic Diet in the University of Saskatchewan Community

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Introduction: The ketogenic diet is low in carbohydrates, high in fats, and has moderate protein. The diet was originally used as a treatment option for children with epilepsy that is difficult to manage with medications. Within recent years, celebrities and social media influencers have been promoting this diet for weight loss.

Objective: Our objective was to investigate awareness and knowledge about the ketogenic diet in the University of Saskatchewan community.

Methods: Survey questions to investigate the research question along with demographic questions were drafted and mounted on SurveyMonkey. The survey was conducted in October 2019. Data were analyzed using descriptive statistics.

Results: There were 398 respondents. 94% of respondents had heard of the ketogenic diet. The most common sources from which respondents had heard of the diet were social media posts, social media influencers, and friends and family members. When asked about their knowledge of the original purpose of the ketogenic diet, only 28% of the respondents were correct in selecting that the purpose was for pediatric epilepsy, 43% did not know, and the remaining 28% submitted an incorrect response. The percentage of accurate responses about the intended use of the ketogenic diet increased with being registered in a basic undergraduate nutrition class and increased even more with course completion.

Conclusions: Our data shows that the most reported sources of information regarding the ketogenic diet consist of potentially unreliable sources. Correspondingly, most of the respondents were unaware of all the associated risks with the diet and did not know the original intended use of the diet. However, respondents who had completed a basic nutrition course were more likely to know more about the ketogenic diet.

Significance: These results suggest that more education is needed regarding the keto diet for the general public. Dietitians have an important role in this process.

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Dietetic Practice and Education

Factors Affecting Subjective Global Assessment use by Northern Ontario Dietetic Internship Program (NODIP) Preceptors

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Introduction: Half of adult patients admitted to Canadian hospitals are malnourished and 75% of cases go undiagnosed. The Subjective Global Assessment (SGA) tool is the gold standard for diagnosing malnutrition. Northern Ontario Dietetic Internship Program (NODIP) interns receive SGA training, yet preceptor uptake is unknown.

Objectives: This study aimed to determine SGA use by Registered Dietitians (RDs) and the barriers and facilitators informing implementation.

Methods: A convenience sample (n=200) included RDs in the NODIP catchment of Northern Ontario working in clinical practice settings; 91 based in hospitals and 19 in Long Term Care. The RDs were recruited using consented email addresses from the NODIP preceptor contact database. A 24-item online survey (Qualtrics©) was developed from literature, pre-tested (n=3) and distributed via email. Survey questions measured RDs' attitudes and adoption of the SGA tool. Analysis included descriptive statistics of quantitative data and thematic analysis of open-ended questions.

Results: Response rate was 35% (n=70) of which 54% preceptor interns annually and 54% (n=38) worked in hospitals. Although many RDs (86%) agree SGA is effective, only 36% (n=25) use it in practice. Of the SGA users, the majority work in hospital settings (53%, n=20). Most SGA users had less than 5 years of experience (55%, n=11). Of those with more than 30 years of experience, 80% were SGA users (n=4). Many RDs (67%) want SGA training for themselves and interns (74%). Barriers to uptake included inadequate training, organizational support, and recognition within intra-and-interprofessional teams.

Conclusion: Results inform NODIP curriculum as training preceptors and learners may increase SGA use. Limitations include a small sample size; therefore, results may not be generalizable.

Significance: Results reveal current SGA uptake by clinical RD preceptors. These results can inform SGA implementation by RDs, particularly NODIP preceptors, dietetic interns and interdisciplinary teams.

Creating an Interactive Timeline of Canadian Dietetic History: Integrating Primary Health Care

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Introduction: The last recorded history of Canadian dietetics was published in 1993. The integration of dietitians into primary health care was novel then, and consequently the historical record of this area of practice is lacking. Primary health care has since been the target of largescale healthcare reform, and dietetic practice has seen analogous changes. Documentation through the review of written records and recall of the dietitians involved is needed to establish key events and developments.

Objective: To record and describe the historical experience of dietitians working in primary health care from a Canadian perspective since 1993.

Methods: Eleven key informants (n=11), were interviewed. A draft timeline of dietitian involvement in primary health care was distributed to participants to guide discussion. Transcribed interviews were coded by five researchers for descriptive and interpretive content using thematic analysis in a social ecological framework. Discussion and comparison between researchers ensured reliability.

Results: Interviewees worked in five provinces, with 23-53 years of experience as practicing dietitians (\bar{x} =37.5 years). Eight themes emerged in analysis. (1) Advocacy, (2) Structural Issues, (3) Information Sharing, (4) Models of Care in Primary Health Care, (5) Working Conditions, (6) Professional Identity in Primary Health Care, (7) Facilitators and Barriers to Practice, and (8) Evaluation. Thematic analysis described the distinct roles of government, health care providers, and patients in the primary health care system, and their collective influence on dietetic practice.

Conclusions: Dietitians have been key in advancing primary health care reform in a variety of roles. Further informants will be interviewed to provide the desired national perspective.

Significance: This project will culminate in an online timeline resource for widespread educational, advocacy, and professional use. Documentation of the contributions that dietitians have made to primary health care is valuable when advocating for increased access to nutrition professionals in primary care settings.

Changes to Canadian dietetic education in the past quarter-century

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Introduction: There is a paucity of research about changes to dietetic education in Canada since 1993, when a book about Canadian dietetic history was published.

Objectives: To develop a timeline and conduct key informant interviews about changes to Canadian dietetic education since 1993.

Methods: A draft timeline was created based on a literature review and descriptions of changes in some programs provided by dietetic educators across Canada. Twenty-five dietetic educators, who were representative of Canadian practical training programs, were contacted; fifteen completed semi-structured audio-taped telephone interviews, using the draft timeline as a starting point. Recordings were transcribed and coded by five team members using thematic analysis and a social ecologic framework.

Results: The fifteen participants were involved in thirteen integrated and practicum programs in Ontario (n=5), British Columbia (n=2), Nova Scotia (n=2), Saskatchewan (n=1), Quebec (n=1), New Brunswick (n=1), and Yukon (n=1). They reported 12-42 years (mean [SD]: 25.2 [8.3]) of dietetic work experience with ~78% of workload dedicated to dietetic education. Five main meta-themes emerged from the interviews: (1) challenges with the traditional dietetic education model; (2) emergence of champions for change; (3) barriers and facilitators for change; (4) shift towards integration; and, (5) increasing access to services for diverse and expanding population needs. The interviews indicated these changes were driven by a desire to increase access to, and capacity and sustainability of, dietetic education.

Conclusions: Over the past quarter-century, through the efforts of champions for change, Canadian dietetic education has changed dramatically. It has increased its capacity and sustainability, improved access to professional designation, and better positioned the profession to meet the needs of diverse populations.

Significance: These findings will be used to inform dietitians and students about the history of the profession. A better understanding of dietetic education can also guide future developments.

A description of the characteristics and nutrition-related outcomes of patients with head and neck cancers receiving feeding tubes at British Columbia (BC) Cancer

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Introduction: A high proportion of head and neck cancer (HNC) patients receive tube feeds during cancer treatment and recovery. However, few studies have described the nutrition-related outcomes of these patients. Tube feeding can provide an effective means of nutrition for patients who have intake difficulties, such as swallowing or chewing during their treatment, which is especially important since up to 60% of HNC patients are malnourished at the time of diagnosis, or before beginning their cancer treatment.

Objectives: To describe nutrition-related outcomes of HNC outpatients who received feeding tubes during their cancer treatment at BC Cancer (BCC).

Methods: A retrospective chart review was conducted on 148 HNC patients receiving chemoradiation at all six BCC sites who received feeding tubes from 2017-2019. Data were retrieved from the Outcomes and Surveillance Integrative System database and the Cancer Agency Information System electronic medical record. Data retrieved includes demographic, and clinical characteristics and outcomes.

Results: Descriptive statistics revealed that 99% of patients had factors that limited their oral intake during their treatment, including altered taste, thickened secretions, odynophagia, dysphagia, reduced appetite, pain, and nausea (each symptom >50%). The majority of patients (82%) received gastric tubes, and 53% were inserted reactively. Twenty-one percent of patients had at least one complication with their tube. Throughout treatment 95% of patients lost weight, 47% of which lost > 10% of their body weight from treatment start.

Conclusion: Most HNC patients receiving chemoradiation have factors that limit their oral intake. Tube feeding may help HNC patients to partially meet their nutritional needs, however patients still tend to lose weight during, and after treatment.

Significance: Describing tube feed interventions and nutrition-related outcomes can help Registered Dietitians to evaluate the current dietetic practice, such as tube type, use, and prescription, for HNC patients receiving tube feeds.

Food Security

Food Insecurity in Older Adults in North America: Is a Different Conceptualization Needed?

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Introduction: Food insecurity (FI), the inability to acquire an adequate amount of food in socially normative ways or the uncertainty that one will be able to do so, is a significant public health problem in Canada. While FI appears to be less common among older adults, some scholars are concerned that current measures fail to identify all older adults who experience food insecurity.

Objective: To determine if a different conceptualization of FI is needed for older adults.

Methods: The peer-reviewed and grey literature was searched. Publications from 1980 to 2019 relating to FI in older adults in Canada and the United States were screened.

Results: For both older adults and those in the general population, income is the strongest predictor of FI. While the prevalence of FI is lower among older adults than among other age groups, some older adults remain vulnerable to FI: those with the lowest incomes, racialized older adults and those living in the territories. In the general population these groups are also vulnerable. For both older adults and the general population there are four common dimensions to the experience of FI: uncertainty and worry about food, inadequate quality of food, insufficient quantity of food, and social unacceptability. Additionally, the bulk of North American research in both older adults and the general population uses an income-based definition of FI.

Conclusions: Given that income remains the single greatest factor that determines FI, a new conceptualization is not needed for older adults. Just as with younger individuals, FI in older adults is the result of a lack of financial resources and reflects material deprivation

Significance: Dietitians need to be aware that while most older adults are protected from FI, there are vulnerable groups in this demographic. Dietitians can advocate for policy interventions that address the lack of financial resources in food-insecure households.

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Nutritional Assessment and Therapy

Autism Spectrum Disorder: A PEN® Pathway Update

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Introduction Autism Spectrum Disorder (ASD) includes a range of conditions with social and behavioural challenges around mealtimes and food intake. With one in 66 children diagnosed with ASD, the role of dietary interventions warrants further investigation.

Objectives Determine key nutrition issues and effective nutrition and behavioural interventions to improve symptoms of autism, dietary intake and nutritional status among individuals with ASD.

Methods: A literature search was conducted using Pubmed. Relevant systematic reviews, randomized controlled trials and observational studies were included. Search terms included Autism Spectrum Disorder, nutrition, diet, food selectivity, food intake variety, omega-3, polyunsaturated fatty acid (PUFA), iron, gluten-free casein-free (GFCF), magnesium and vitamin B6. Using Practice-based Evidence in Nutrition (PEN®) processes and tools, articles were screened, summarized, critically appraised and synthesized into graded practice recommendations.

Results Of 231 articles retrieved, 42 had relevant titles. Abstract review left 22 meeting criteria for further evaluation. Additionally, four articles were identified from hand searching article reference lists. After full review, 13 studies were included published from 2011-2020. Collected evidence suggested GFCF diets and multivitamin/mineral supplementation may improve some symptoms of autism. Little/no benefits were observed with iron, magnesium and vitamin B6, PUFA or probiotic supplementation. Peripheral iron levels and intake were comparable to those without ASD. Classical and operant learning theories and exposure techniques were effective for short term improvement of restrictive eating and mealtime behaviours. The aforementioned conclusions and evidence syntheses are currently being reviewed by international experts before publication in PEN®.

Conclusion: Large scale research trials are needed to clarify if dietary interventions provide long-term benefits to individuals with ASD.

Significance: There is a need for a comprehensive understanding of nutrition issues experienced by those with ASD and whether effective evidence-based interventions can improve food and nutrient intakes, food enjoyment, mealtime behaviours and nutritional status.

Relationships between diet and mental health: preliminary results from an umbrella review

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Introduction: Depression affects over 300 million individuals and is currently the leading cause of disability worldwide. In recent years, numerous (>150) systematic reviews and meta-analyses focusing on associations between various dietary variables and mental health issues (e.g., depression) have been published.

Objective: To provide the first detailed overview of currently available knowledge on this subject in the form of an umbrella review of systematic reviews and meta-analyses.

Methods: Medline, EMBASE, PsycINFO, Food Science and Technology Abstracts, and Cochrane Library databases were systematically searched (01/01/2005 to 19/11/2019). Non-duplicate articles were screened and evaluated for inclusion by two authors. Methodological quality was assessed using the AMSTAR tool. A summary of studies' characteristics and results was created.

Results: After title and abstract screening, 158/3,029 studies were considered potentially relevant. These studies were separated into categories based on the dietary variable of interest. Following full-text screening of 40/158 studies, 23 were deemed eligible for inclusion in this review. The first category, dietary patterns (e.g., Mediterranean diet) included 19 studies, while the second, foods and food groups (e.g., vegetables), included 4 studies.

Results suggest that unhealthy dietary patterns, characterized by high intakes of processed foods were associated with an increased risk of depression, while healthy dietary patterns, characterized by high intakes of fruits, vegetables, whole grains, mono- and poly-unsaturated fats could be associated with a lower risk of depression. The remaining 118/158 studies awaiting full text screening focused on micro-nutrients and dietary supplements.

Conclusion: Preliminary results suggest that unhealthy dietary patterns were associated with a higher risk of depression, while healthy dietary patterns could have a protective effect.

Significance: Upon completion, this umbrella review will serve as a key reference for researchers, as well as a resource for health professionals wishing to learn about the current state of scientific knowledge on diet and mental health.

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Improving nutrient density of food offerings in long-term care

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Purpose: To identify 10 savory and 10 sweet nutrient-dense recipes appropriate for use in Long Term Care (LTC) focusing on plant-based proteins. Protein goals were a minimum of 20g/serving and 5g/serving for main dishes and sides/desserts respectively. Recipes were to be costed/serving and texture-modified according to Dysphagia Diet Standardization Initiative (IDDSI) level 4 (minced) and 5 (pureed) consistency.

Process: Recipe search was conducted using two resources (Cooking with pulses, 2017; Bean toolkit for older adults, 2018). Five main entrees, five sides, and 10 desserts were selected. Nutrient analysis of each recipe was completed using Sysco Synergy on Demand[®] (SSD[®]) software. Four sweet recipes did not meet the protein goal (2.33-4.44g/serving). Therefore, ingredients were hypothetically substituted/added (e.g., Greek yogurt, beans/lentils, skim milk powder, chickpea flour, and eggs). Second round nutrient analysis was then performed and showed increases to 5.21-5.84g protein/serving for these products. Costing analysis was performed using Complete Purchasing Services[®]; recipes ranged from \$0.11-1.66/serving. Using IDDSI testing methods, all recipes were hypothetically texture-modified with added liquids (e.g. milk, broth, etc.) to meet level 4 and 5 consistency.

Systematic Approach Used: Recipes were identified through published resources, analyzed for nutrient content, and hypothetically texture modified using IDDSI. Common processes for recipe building and costing suited for LTC were completed using the adapted scaled recipes.

Conclusions: Plant-based recipes can provide adequate protein and fibre, meet IDDSI criteria, and be suitable and feasible for LTC settings.

Recommendations: Emerging evidence and revised nutrition guidelines indicate a need for menu revisions in LTC. Through nutrient-enhanced recipes, residents could be offered food items to improve nutritional intake and aid in preventing malnutrition and related complications.

Significance: Through menu revisions in LTC homes, dietitians can incorporate plant-based proteins and nutritionally enhance food items, while meeting IDDSI standards to ensure residents' nutrition goals are safely and adequately met.

A descriptive retrospective review of Fraser Health acute care dietitians diagnosing and documenting malnutrition using Subjective Global Assessment (SGA)

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Introduction: With the prevalence of malnutrition as high as 45% upon admission to Canadian hospitals, identifying patients at nutritional risk is crucial; however, malnutrition continues to be under recognized and/or under documented. Subjective Global Assessment (SGA) can be used to diagnose malnutrition, leading to early nutrition interventions for malnourished patients.

Objectives: Describe the use of SGA among Fraser Health (FH) acute care dietitians following SGA training, including frequency of SGA and prevalence of malnutrition and alternate diagnoses used in patients that scored as mild/moderately malnourished (SGA B), or severely malnourished (SGA C).

Methods: A retrospective chart review was conducted on a convenience sample of 432 initial nutrition assessment reports from 11 FH acute care sites over November 1st to 30th, 2019. Data was analyzed using descriptive statistics.

Results: SGA was conducted in 62.5% (n=270) initial nutrition assessments, with 52.9% (n=140) scoring SGA B and 17.8% (n=48) scoring SGA C. 'Malnutrition' was diagnosed in 42.4% (n=58) of those who scored SGA B (n=140) and 79.2% (n=38) of those who scored SGA C (n=48). The most common diagnoses among all initial nutrition assessments were malnutrition (24.5%, n=106), inadequate oral intake (24.0%, n=104) and inadequate protein-energy intake (22.2%, n=96).

Conclusion: Acute care dietitians are not regularly utilizing SGA; however, dietitians are more consistently diagnosing 'malnutrition' when a patient has an SGA score of B or C compared to previous studies. Further research is needed to determine barriers to SGA and the effectiveness of SGA training.

Significance: SGA is a validated, non-invasive tool dietitians can use to efficiently diagnose malnutrition and identify those who would benefit from nutrition care, leading to reduced length of stay, likelihood of major complications and readmission rates for malnourished patients.

Vulnerable Groups and their Nutritional Needs

The Nutrition Education Needs of Older Adults in Rural Northern Ontario

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Introduction: Over 30% of community-dwelling Canadian seniors are at risk of malnutrition and only 25% of those receive nutrition counselling. Ethical screening emphasises the importance of optimizing nutritional status while results provide evidence needed to inform nutrition interventions.

Objectives: To determine key malnutrition risk factors, education needs and preventative strategies for seniors (65+) in the Timiskaming District.

Methods: Patient demographics and completed electronic SCREENIAB© questionnaires, received in Excel© from two Family Health Teams (FHTs), were coded then analyzed using pivot tables with the most frequently identified nutrition risk factors used to develop a focus group (FG) guide. Community-dwelling seniors were recruited directly (e.g., phone calls) or indirectly (e.g., social media) to participate in two 90-minute FGs. Responses were transcribed using Word© and analyzed thematically. The FG participants completed paper SCREENIAB© questionnaires which were entered into Excel© and compared to the FHT sample.

Results: The FHT sample (n=107) were 52% female (average age 75; range 65-91 years) and the FG sample (n=20) were 90% female (average age 74; range 66-83 years). Over half (58%) of the FHT sample consumed insufficient fruits and vegetables and 34% had low fluid intakes which was comparable to the FG sample (55% and 40% respectively). Barriers to healthy eating were produce cost, transportation, and access to public washrooms. Education needs included symptoms and strategies for chewing and/or swallowing issues, and understanding what constitutes total fluid intake. In-person group education sessions were the preferred method.

Conclusions: Despite a higher female:male ratio in the FGs, similar malnutrition risk factors were identified, suggesting reported barriers and education needs may inform a comprehensive upstream approach. Additional FGs and the full version of SCREEN© would capture potential gaps such as additional risk factors (e.g., protein intake).

Significance: Findings will inform program planning and advocacy to support seniors at risk of malnutrition.

Determinants of Food Choice, Dietary Intake

Comparison of inter-rater agreement when performing visual plate waste audits with standardized instructions vs. without standardized instructions

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Introduction: Plate waste audits are routinely conducted to assess menu performance. A previous Fraser Health (FH) study on plate waste audits completed by Food Service Supervisors (FSS) without standardized instruction found good to excellent rater agreement on food remaining on trays, but lower agreement on item presence. Audit instructions were developed as it was unknown whether training would result in stronger agreement.

Objectives: To compare inter-rater agreement of plate waste audit scores between pairs of FSS who have received instruction versus those who have not received instruction.

Methods: A pair of FSS from three FH hospitals used the validated visual quarter-waste method to independently evaluate amounts of an entree and soup remaining on trays, where two of three pairs received instruction. Inter-rater agreement on food remaining and item presence were compared using intraclass correlation coefficient (ICC) and Kappa statistic, respectively.

Results: With instruction, rater agreement was stronger for the amount of soup remaining and presence of both entree and soup. Agreement between raters was excellent for the amount of entree remaining for both groups. ICC with instruction for entree (n=186) and soup (n=164) were 0.98 (95%CI=0.97-0.98) and 0.99 (95%CI=0.98-0.99), respectively (p<0.0001). ICC without instruction for entree (n=140) and soup (n=115) were 0.95 (95%CI=0.93-0.97) and 0.87 (95%CI=0.81-0.91), respectively (p<0.0001). Kappa value with instruction was 0.83 for entree (n=193) and 0.91 for soup (n=193) (p<0.0001). Without instruction, Kappa was 0.76 for entree (n=160) and 0.58 for soup (n=159) (p<0.0001).

Conclusions: Results suggest standardized instruction is strongly recommended for plate waste audits. Fewer trays audited per rater or extra time to complete audits noted in the group with instruction could have been contributing factors and warrant further research.

Significance: Improving inter-rater agreement of the visual quarter-waste method using standardized instructions may increase accuracy of information used for subsequent menu planning decisions.

Influence of previous Arctic field experience on energy intake and requirements of soldiers in the Canadian Armed Forces

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Introduction: Soldiers in the Canadian Armed Forces (CAF) consume combat rations during various field-trainings and missions, which can occur in extreme environments like the high Arctic. In such conditions, energy requirements are estimated to be higher compared to those in mild climates. Several factors influence soldiers' energy intake. Based on gray literature and personal communications, previous Arctic field experience would be an important factor to consider.

Objective: To compare the daily energy intake of soldiers with or without previous experience in the Arctic.

Methods: Soldiers taking part in an Arctic training were recruited in January 2019. Participants completed a questionnaire collecting demographic information and asking if they had prior Arctic field experience. Energy intake was estimated using a 24-hour food diary of a typical day during a week-long field-training in the Arctic. Food diaries were verified with each participant by a dietitian.

Results: Fourteen soldiers participated: seven having previous Arctic experience and the others without. Soldiers with previous experience consumed 2950 ± 748 kcal/day compared to 2649 ± 610 kcal/day for those without experience ($p > 0.05$). The energy intake of soldiers was lowest at breakfast and highest at lunch ($p < 0.05$), with no difference between Arctic experienced and non-experienced participants. Soldiers with previous experience started their day with 754 ± 310 kcal versus 974 ± 398 kcal at lunch ($p < 0.05$), while soldiers without experience consumed 634 ± 223 kcal at breakfast versus 872 ± 236 kcal at lunch ($p < 0.05$).

Conclusions: No difference was seen for daily energy intake between soldiers with and without Arctic experience. Breakfast tended to be the meal providing the least amount of daily energy, while lunch was the meal providing the most energy intake for soldiers.

Significance: Given the high energy needs of this population, those preliminary results suggest the importance of adequate energy intake during field training for all soldiers, including those with and without previous Arctic field experience.

Patient Services

A description of food service related errors reported using the Patient Safety and Learning System (PSLS) from Providence and Vancouver Coastal Health sites between September 2017 to September 2019

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Introduction: Providing appropriate nutrition in hospitals and long-term care (LTC) facilities is an essential component of patient care; errors could cause potential harm. The Patient Safety Learning System (PSLS) is a web-based tool for healthcare professionals to report critical and non-critical patient safety events. There is limited research conducted on food service errors in the hospital setting.

Objective: To determine the prevalence of critical food service related errors reported to PSLS, and to identify patterns in types of critical error (texture, allergy, safety), points of error, and seasonality in acute and LTC facilities.

Methods: A retrospective review of 313 food service related PSLS reports from September 2017-September 2019 was completed. Data collected included point of error (receiving, food production, diet office, trayline, tray delivery, nursing), facility type (acute, LTC), facility name, degree of harm (critical, non-critical), and season. Data were analyzed in Microsoft Excel using descriptive statistics.

Results: Of the 179 PSLS reports that met the inclusion criteria, 59.8% (n=107) were deemed critical. Between the three critical error types, texture errors were the most prevalent in both LTC and acute settings at 67% and 56% respectively. In LTC, the most common point of error was trayline (32.9%), followed closely by food production (30.6%). Diet office errors were most common in acute care (41.5%). Most critical errors occurred during the winter in LTC (39.5%), and during the fall in acute care (31.3%).

Conclusion: This study determined more than half of all reported food service related errors at Vancouver Coastal Health and Providence Health Care Sodexo sites are critical in nature, with textural errors being the most common.

Significance: This research will inform quality improvement initiatives in food service operations in order to help improve patient safety.

Clinical Research (Including Outcomes of Intervention)

Description of calorie and protein provision in enterally-fed, mechanically ventilated VGH ICU patients during the first 7 days of admission

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Introduction: Enteral nutrition (EN) is the preferred route for feeding mechanically ventilated (MV), critically ill patients. Initiating early EN, minimizing feeding interruptions, and receiving adequate nutrition support can improve health outcomes. Currently, the number of MV patients receiving at least the recommended 80% of calorie and protein requirements at Vancouver General Hospital (VGH) is unknown.

Objectives: (1) Describe the demographics of MV ICU patients who received EN within the first 7 days of admission; and, (2) determine the adequacy of calories and protein delivered and barriers to EN during these first 7 days.

Methods: A retrospective chart review was conducted for 84 VGH ICU patients admitted between April 1, 2019 and June 30, 2019. This study included patients over 18 years old, intubated on the day of admission, continuously MV for at least 7 days, and had EN initiated within those 7 days. Data collected included demographics, anthropometrics, registered dietitian tube feed order, formula and volume received, use of propofol and/or protein powder, and barriers to EN. Length of stay, and calories and protein delivered were calculated. Descriptive statistics were used to determine the proportion of patients receiving 80% of calorie and protein requirements.

Results: Of the 35 patients included (28 female and 7 male; mean age of 57), 65% (n=23) received 80% of their caloric and protein needs through EN across a 7-day average. The most common barrier to EN was procedures (50%).

Conclusions: Our findings suggest that the majority of MV ICU patients admitted to VGH received 80% of their nutritional needs through EN. However, there are opportunities to continue closing this gap and mitigate barriers to EN.

Significance: This study provides insight into developing new protocols to help patients achieve nutritional adequacy and improve dietetic practice within the VGH ICU.

A retrospective chart review at Nanaimo Regional General Hospital comparing implementation of the Canadian Nutrition Screening Tool (CNST) to the previously used Malnutrition Screening Tool (MST): Influence on malnutrition screening frequency, subsequent dietitian referrals, and dietitian involvement in patient care

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Introduction: In 2018, Nanaimo Regional General Hospital (NRGH) transitioned from using Malnutrition Screening Tool (MST) to Canadian Nutrition Screening Tool (CNST) to simplify the screening process for malnutrition.

Objectives: This study sought to understand whether implementation of CNST increased malnutrition screening frequency, subsequent dietitian referrals (consults), and dietitian involvement in patient care, compared to MST.

Methods: A retrospective chart review was conducted on 540 patients admitted to NRGH medical and surgical wards between February 1-April 30, 2019, inclusive, with lengths of stay of ≤ 48 hours. Data were compared to a previous student project examining use of MST which applied the same inclusion criteria to patients admitted to NRGH between February 1-April 30, 2018, inclusive. Chi-squared analyses were used to determine any statistically significant differences between the two study samples.

Results: Frequency of CNST completion was 62.2% (n=336/540) compared to 18.5% (n=50/270) for MST. Of participants identified as 'at nutritional risk' by CNST, 94.6% (n=87/92) had a dietitian consult and 81.5% (n=75/92) had both a consult and dietitian involvement in care. Compared to the participants who were identified as 'at nutritional risk' by MST, only 50% (n=14/28) had a dietitian consult and 39.2% (n=11/28) had a dietitian involved in their care.

Conclusions: Higher frequency of completed malnutrition screening supports the transition to CNST from MST. Patients identified as 'at nutritional risk' are more likely to have a dietitian consult and have a dietitian involved in their care.

Significance: Dietitians are integral members of the interdisciplinary team and play a key role in improving nutrition status and decreasing length of stay. Increased dietitian involvement in patient care has the potential to improve health outcomes, but will increase dietitian workload. With hospitals running over-census, more dietitian hours may be needed to adequately respond to this increase

Assessing the sustained impact of the Robson Valley Lifestyle in Vanderhoof, BC: A retrospective chart review

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Introduction: This research describes the sustained impacts of participation in the Robson Valley Lifestyle (RVL) which was a low-carb, low-fat diet program in Vanderhoof, BC.

Objectives: This research describes the population that participated in the RVL and compared anthropometric and biochemical data of participants before, immediately after, and 3 to 4 years after participating in the RVL. Additionally, it identifies the number of participants who were seen by a dietitian.

Methods: A retrospective chart review was conducted on RVL participants from the Omineca Medical Clinic in Vanderhoof, BC. Data on various health parameters were collected pre-RVL, post-RVL, and at present. Two-tailed t-tests were conducted between each participants' health data at each time interval. Dietitian involvement during and after the RVL was also tracked.

Results: 38 participants met the inclusion criteria. For pre- vs post-RVL, significant differences (p-value <0.05, 95% CI) were found in BMI (-2.8 kg/m²; CI -3.8 to -1.8), weight (-8.8 kg; CI -10.7 to -7.0), and systolic blood pressure (-5mmHg; CI -9.1 to 0). Comparing post-RVL vs present, significant differences were found in BMI (+3.9kg/m²; CI 2.8 to 5.0), weight (+12.6kg; CI 9.5 to 15.8), systolic (+8mmHg; CI 0.6 to 15.3) and diastolic (+6mmHg; CI 1.5 to 9.5) blood pressure, and fasting glucose (+0.5mmol/L; CI 0.1 to 0.8). Comparing pre-RVL to present, weight (+3.8kg; CI 0.8 to 6.7) and diastolic blood pressure (+5mmHg; CI 0.3 to 8.2) were significantly higher. 0% of participants were referred to a dietitian during the program, and 16% were referred to after.

Conclusion: The initial impact of the RVL has not been sustained.

Significance: This research adds to the body of literature that suggests benefits from restrictive diets are not sustained

Assessing the nutritional adequacy of multi-chamber parenteral nutrition solutions to meet macronutrient, caloric, and fluid needs of adult patients on the BC Home Parenteral Nutrition (HPN) Program

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Introduction: The British Columbia (BC) HPN team serves patients throughout the province who require long-term parenteral nutrition (PN) at home. Currently, their prescriptions are individualized by the BC HPN clinical team; however, commercially made multi-chamber PN solutions (MCBs) that provide a predetermined amount of macronutrients are available for use.

Objective: To assess the nutritional adequacy of five MCBs as compared to the parenteral macronutrient, calorie and fluid needs of BC HPN patients.

Methods: A retrospective chart review was conducted for 41 eligible HPN adult patients (18+) with an active PN prescription as of Oct.1st, 2019. HPN prescriptions including carbohydrates, protein, lipids, total energy, fluid, as well as participants' weight, age, sex, and HPN indication were recorded. The nutrient breakdown of prescriptions was compared to the MCBs to assess adequacy. Adequacy was defined as being within +/- 10% of the patients' HPN prescription for macronutrients, calories, or both. A secondary analysis for fluid adequacy was conducted.

Results: Of 41 prescriptions collected, one was ineligible for analysis due to missing data. Only one prescription had macronutrient needs met by a MCB. Thirty-seven (93%) prescriptions had caloric requirements met by at least one MCB, of which three also provided adequate fluid. Further, MCBs exceeded recommended ESPEN guidelines for amount of lipids provided via PN between 3% and 88% of prescriptions per MCB.

Conclusion: Calorically, MCBs could provide a suitable alternative for a subsection of HPN patients. However, the HPN team would need to assess on an individual basis whether MCBs would be suitable for patients' macro- and micro-nutrient as well as fluid needs.

Significance: Multi-chamber solutions can be less costly, are considered safer due to decreased prescriber error, and are associated with lower risk of bloodstream infections. The use of MCBs could provide another accessible and potentially safer alternative for patients on HPN.

Determining the perception of Malnourished patients on Malnutrition infographics

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Objectives: The objective of this research was to determine the perception of patients in hospital who are malnourished on malnutrition infographics.

Methods: Patients who were at least 18 years of age, diagnosed as malnourished (SGA B/C), in the medical or surgical units at Regina General Hospital, SK were asked to participate. Once consent was obtained, patients were invited to take part in a fifteen-minute interview and were shown two posters with infographics on malnutrition. Participants were asked about the infographics' format and their perceptions of them.

Results: Nineteen participants provided feedback on the two infographics. Fourteen of the nineteen (74%) participants found poster 1 easy to read as compared to the second poster (63%, n=12/19). Participants made observations that the posters were confusing and overly busy, contributing to why not all participants found the poster easy to read. For both posters, 15 out of 19 (78.9%) said the information was useful to them. Of the 19 participants, 11 (57.9%) said a dietitian had come to see them. The majority of participants (n=13/19, 68.4%) had been in the hospital at least 1 week. Twenty six percent (n=5/19) had identified that living alone would be a barrier to eating to meet needs after leaving the hospital, while 26.3% (n=5/19) identified that poor appetite would be a challenge. Fifty-eight percent (n=11/19) of participants reported that "loss of independence" was the group of words on poster 1 that stood out to them the most, whereas "fueling" and "healing" was noted for poster 2.

Conclusions: Participants generally found the information on the infographics useful. Participants related to messages that aligned with their experiences and values. Practical tips to improve posters as using simpler texts and images. Future research should examine the effectiveness of infographics as they relate to motivating patients to increase their intake.

Comparison of completion rates of the nutrition screening component of the 48/6 Admission History Form (AHF) at Royal Inland Hospital (RIH) and after the More-2-Eat research project at Kelowna General Hospital (KGH)

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Introduction: Malnutrition in acute care settings can lead to poorer health outcomes and increased costs. The 48/6 Admission History form (AHF) is a screening tool that is used across Interior Health and includes a Nutrition and Swallowing Section (NSS) used to flag patients at risk of malnutrition. Phase 2 of the More-2-Eat Research Project provided nutrition education to allied health professionals and included KGH but not RIH.

Objectives: (1) To compare completion rates of the NSS of the 48/6 AHF between similar wards at KGH and RIH and (2) To compare completion rates of the NSS in a ward involved in the More-2-Eat study and other wards not involved in the More-2-Eat study within KGH.

Methods: This cross-sectional chart review used convenience sampling of 200 patient charts. Data were collected from paper charts and included completion rates of the NSS on the AHF and if the AHF was completed within 48 hours. Descriptive statistics were used to describe the results as proportions.

Results: The inclusion criteria were met by 190 charts (n=95 at KGH, n=95 at RIH). Among this sample KGH had 51% (n=48) complete NSS on AHFs and RIH had 31% (n=29) complete. The ward involved in the More-2-Eat study in KGH (n=23) had 26% (n=6) of the NSS complete. The wards within KGH not involved in the More-2-Eat study (n=72) had 58% (n=42) of the NSS complete.

Conclusions: This study suggests that the nutrition section of the AHF is not being consistently completed and that the More-2-Eat study training did not effectively improve nutrition screening rates when compared to other wards at KGH.

Significance: The findings from this study highlight the need for more consistent malnutrition screening in hospital. Quality improvement initiatives that support utilization of the nutrition section of the AHF could help reduce malnutrition in hospitals.

Undergraduate Education and Dietetic Internship

Workup of delirium on hospitalist medicine units at Vancouver General Hospital: How frequently are we investigating and treating thiamine or vitamin B12 deficiency as a potential cause?

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Introduction: Delirium is an acute disturbance of consciousness with reduced ability to focus, sustain, or shift attention. It is associated with prolonged hospital stays, increased mortality rates, and cognitive dysfunction post-delirium. Thiamine and vitamin B12 deficiencies are potential etiologies of delirium. Despite well-established roles in cognitive function, the extent to which these micronutrients are being investigated as part of a delirium workup and treatment plan for hospitalist medicine patients at Vancouver General Hospital (VGH) is unknown.

Objectives: To determine: 1) the prevalence of delirium as identified by physicians across the three hospitalist medicine units at VGH, and of those: 2) the number of patients who received thiamine supplementation; and, 3) the number of patients who received vitamin B12 supplementation and/or laboratory investigations of serum vitamin B12 levels.

Methods: A retrospective chart review of 199 patients admitted to VGH hospitalist medicine units (L7A, L7C, L8A) from January 1 to 31, 2019 was conducted. Descriptive statistics were used to analyze data. **Results:** 82 patients (41.6%) presented with delirium. Among these patients, 19.5% (n=16) received thiamine supplementation, of which 25% (n=4) were for treatment of alcohol withdrawal and 75% (n=12) had no documented reason. 9.8% (n=8) of patients with delirium received vitamin B12 supplementation, of which 12.5% (n=1) was for delirium workup. 56.1% (n=46) underwent investigations of serum vitamin B12 levels.

Conclusion: This study indicates that despite a high prevalence of delirium within VGH hospitalist medicine wards, delirium workups do not routinely investigate thiamine or vitamin B12 deficiencies as potential causes.

Significance: This study suggests the connection between nutritional deficiencies and delirium may be under-recognized during workup and treatment plans for delirium. Dietitians may play a key role in advocating for awareness on this topic, and identifying and treating nutritional deficiencies related to delirium.

Neonatal Intensive Care Unit Early Pumping Protocol

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Objective: The purpose of this study is to determine what supports and resources parents of preterm infants want to encourage breast milk pumping within 1 to 2 days of infant admission to the NICU.

Methods: A 22- item survey was developed pertaining to breast milk pumping for caregivers. Parents whose infants had graduated from the NICU in the past two years were invited to participate. The survey consisted of questions regarding baby demographics, NICU admission and initiation of breast milk pumping, supports and resources, and parent demographics. Open-ended questions were grouped into themes.

Results: Thirty-five out of 48 surveys were completed for a response rate of 75%. One survey was excluded as it did not meet the inclusion criteria. Fifty-one percent (n=18/35) of respondents were able to be present in the NICU within 6 hours after birth. Thirty-seven percent (n=13/35) of respondents were talked to about pumping within 6 hours most commonly by a nurse (n= 27/35, 77%) or lactation consultant (n= 10/35, 29%). The challenges experienced by respondents included stress, low milk supply, fatigue, access to equipment, and differences in nursing approaches to pump breast milk. There were 85% (n=29/35) of respondents who felt they were provided with enough support while pumping breast milk. Respondents felt they were able to successfully initiate breast milk pumping by being shown how to and encouraged by a healthcare professional. Other themes noted for suggested support and resources include access to proper equipment, improving milk supply. Of the respondents, 49% (n=17/35) previously had children, and of those, 76% (n=16/35) previously breastfed their children.

Conclusions: The results suggest that the mothers of discharged premature infants had positive experiences, however, are looking for increased support or resources with breast pump machines, education on the topic (pre- and post-natal), and consistent nursing practice.

The Good Food Project: Measuring the patient hospital food experience with the Patient Hospital Food Experience Questionnaire

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Objective: The purpose of this study was three fold: first, to pilot a survey tool to measure patient expectations of and satisfaction with hospital food; second, to determine if there is an association between satisfaction and intake; and, third, to identify areas that could benefit from quality improvement initiatives.

Methods: The Patient Hospital Food Experience Questionnaire (PHFEQ) was used with permission and administered at two acute care hospitals in Regina, SK over a period of six weeks. Dietary intake data were also measured using an adapted version of My Meal Intake Tool. Patients were eligible to participate if they were medically and cognitively able, >18 years of age, spoke English and were consuming an oral diet for minimum two days. Statistical significance was set at $p < 0.05$ to determine if there was an association between satisfaction and intake.

Results: The PHFEQ (n=145) was administered for meals during the days of the week and took an average of 12.1 minutes to complete. Patients expect hospital food to be tasty, healthy and fresh. Forty-eight percent (n=66/138) of participants rated the overall quality of their meal as good, indicating they were satisfied. Patients consumed a mean intake of 67.1% of calories (n=144). Patient satisfaction of all attributes of the meal assessed was positively correlated with intake ($p < 0.05$). Specific areas to improve on within food services were identified.

Conclusion: The PHFEQ established patients' expectations of and satisfaction with hospital food and can be used to identify specific areas for food quality improvements within hospital food services. Ongoing use of this tool is recommended so food service personnel can continue to assess patient satisfaction with their menu and food quality, evaluate the impact of quality improvement efforts and ultimately help provide the good food patients need for health, well-being, healing and prevention of hospital-related malnutrition.

Funding: Provided through the College of Medicine Dean's summer student project.

Saskatchewan Dietitians and Physician Attitudes on Diet Liberalization in Acute Care

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Objectives: To determine the attitudes of Saskatchewan acute care dietitians and physicians with respect to liberalized diets.

Methods: Acute care dietitians and physicians across Saskatchewan were invited to participate in a 23-item validated online survey. The lead investigator sent the survey link to dietitians and the 12 Area Chiefs of Staff across the province with the request to distribute it to their physician teams. The survey data were analyzed by profession, years of practice, and geographic location.

Results: There were 111 respondents: 63.1% (n=70/111) were dietitians and 36.9% (n=41/111) were physicians. Rural South and Regina each represented 33.6% of respondents (n=37/111). There was equal representation from years of practice categories. Years of practice and geographical location did not significantly impact responses. When asked about diet liberalization, half (51.2%, n=21/41) of physicians and the majority of (94.6%, n=65/70) dietitians agreed that ‘... acute care hospital menus should be maximizing intake rather than restricting nutrients.’ When asked about specific foods there was disagreement between the professions. Physicians disagreed (53.7%, n=22/41) that ‘comfort foods ... should be available to all patients in hospital’, while dietitians agreed (68/6%, n=48/70) with the same statement. Physicians (70.0%, n=28/40) disagreed that ‘hospitalized patients with diabetes should be allowed to have foods that contain concentrated carbohydrate ...’ while 74.3% (n=52/70) dietitians agreed with the same statement. Both physicians (82.5%, n=33/40) and dietitians (60.0%, n=42/70) agreed with 2300mg as the menu planning goal for acute care.

Conclusions: The results demonstrated dietitians and physicians generally support diet liberalization as a theory. Physicians, however, were not in favour of liberalizing specific foods such as comfort foods. Sodium was one nutrient both professions were not in support of liberalizing. The results of this survey suggest that a disconnect exists between supporting diet liberalization while still wanting to restrict certain foods and nutrients.

Other

Environmental scan of Saskatchewan post-secondary programs offering nutrition education; an assessment of content and the role of the dietitian

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Objective: The Saskatchewan Dietitians Association (SDA) would like to determine which post-secondary programs, offer nutrition courses/topics as part of the curriculum for the healthcare programs in the province.

Methods: In February of 2020, a survey was developed and distributed to 41 instructors who were involved in the development or delivery of the nutrition education within their perspective health care programs. The survey questions included demographics, general course information, course content, nutrition education in the program, and students' capability to provide nutrition screening/counselling after graduation. Close-ended questions were tabulated as percentages, and open-ended questions were collated into themes.

Results: The response rate was 48.8% (n=20/41). More healthcare programs make nutrition education a requirement for their students (n=11/19) then are mandated to have nutrition education for accreditation (n= 5/17). Education is delivered through a variety of methods including didactic sessions (n=17/19), case studies (n=8/19), and self-studying (n=5/19). Nutrition education was most often taught by a faculty member (n= 13/19), and only by a Registered Dietitian (RD) 21.1% (n= 4/19) of the time. Nutrition content was developed by an RD for 42.1% (n= 8/19) of programs. The importance of RDs is recognized by programs as 66.7% (n=12/18) report students know when to refer patients/clients and 64.7% (n=11/17) know when to consult RDs for information.

Conclusions: Saskatchewan post-secondary health care programs are teaching nutrition and include a variety of nutrition topics. Time was identified as a limitation for the content. Programs tended to include nutrition education in their curricula even if it was not specified for accreditation, which indicates its importance for allied health professionals. This study provide insight into the type of nutrition content taught at various post-secondary health care programs in Saskatchewan and who teaches this content.

A description of adult patients admitted with an eating disorder to any Fraser Health Authority Emergency Department or Acute Care Unit from January 1st, 2008 to December 31st, 2018

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Introduction: Eating disorders (EDs) are complex psychiatric conditions often associated with severe psychological and physical comorbidities. ED patients admitted to acute care for medical stabilization may require dietitian care. There is limited research on this population in acute care settings in Canada.

Objectives: (1) Describe the adult ED patient population that utilized acute and emergency care services within FHA between 2008 to 2018. (2) Determine ED patient outcomes and nutrition specific interventions within the study population.

Methods: Patients aged 17 and older with an ED admitted to a FHA acute or emergency care department within the study timeframe were identified using Promiso software. A retrospective chart review using Electronic Medical Record (EMR) was conducted. Frequency and medians were calculated on the 16 variables collected.

Results: 54 patient charts were reviewed. 81% were female, median age was 24.5 years and median body mass index was 16.4 kg/m². 67% of patients had an Anorexia Nervosa diagnosis. Most patients had multiple comorbidities; 89% presented with coexisting psychiatric conditions. Suicidal ideation was noted in 18% of hospitalizations. Length of stay per hospitalization ranged from 1-122 days (median: 5) with large variance between FHA sites. 79% of patient readmissions within the study timeframe were of ED-related cause. 58% of hospitalizations involved a dietitian consultation and 19% involved enteral nutrition support.

Conclusion: Trends observed in this study were not generalizable because of limitations in the sampling method. However, this study described a portion of ED patients within FHA and will contribute to an ongoing study utilizing a representative sample. This continuing study may elucidate associations that will inform patient care.

Significance: Identifying trends and associations in the ED population through ongoing research will help determine the need for standardized practice recommendations, which may include nutrition management.

Preparedness of recent University of Saskatchewan Nutrition graduates to work with Indigenous populations in a culturally humble manner

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Objectives: The purpose of this study was to determine the perceived readiness of dietetic graduates to work with Indigenous populations in a culturally humble manner.

Methods: A cross-sectional study was conducted. A survey was developed with both open and closed-ended questions with the option of participating in a later interview to better understand experiences of working with Indigenous clients. The survey was sent via email to 105 University of Saskatchewan alumni of the Bachelor of Science in Nutrition program who graduated between 2015 and 2019.

Results: Thirty-five out of 105 participants (33%) responded to the survey. The majority of survey participants were female (94.1%, n=32/35), identified as Caucasian (82.9%, n=29/35), and were age 25-30 years old (88.6%, n=31/35). The mean percentage of participants who perceived sufficient personal understanding of Indigenous topics such as traditional foods, impact of colonization and health disparities, was 8.75% (3= /35); 27.9% (n=10/35) of participants reported having no exposure to these topics at entry-level. The mean percentage of participants who would avoid these tasks was 22.9% (n=8/35), while 3.35% (n=1/35) of participants felt able to serve clients comfortably at entry-level. This study found positive relationships between knowledge of specific concepts and the perceived ability to comfortably perform tasks surrounding Indigenous health. The interview was conducted with three participants and comments through the survey and interview support increased learning opportunities for dietetic students related to Indigenous history, culture and health.

Conclusions: The study results suggest that recent dietetic graduates from the University of Saskatchewan Nutrition Program did not perceive themselves to be adequately prepared to work with Indigenous populations in a culturally humble way at entry-level. This suggests that more Indigenous content could be offered during the undergraduate program, including practicum, with attention being paid to the NUTR 310: Food Culture and Human Nutrition course.

Wellness and Public Health

L'influence des préoccupations des mères par rapport à leurs enfants sur les pratiques alimentaires maternelles – résultats préliminaires d'une étude qualitative

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Introduction: Les pratiques alimentaires utilisées par les parents, soit la surveillance, la restriction et la pression à manger varieraient selon les préoccupations parentales. Cependant, la restriction et de la pression à manger auraient des effets négatifs à long terme sur l'alimentation et le statut pondéral des enfants. Les préoccupations et pratiques alimentaires diffèreraient également selon les groupes ethniques, mais peu d'études se sont penchées sur les immigrants noirs.

Objectif: Étudier l'influence des préoccupations par rapport au poids, à l'alimentation et à la santé des enfants de mères immigrantes noires sur leurs pratiques alimentaires. **Méthodologie:** Des entrevues individuelles et semi-dirigées ont eu lieu avec huit mères immigrantes noires africaines et caribéennes à Ottawa. Les discussions enregistrées ont été transcrites en verbatim et une analyse thématique a été effectuée dans le logiciel N-Vivo.

Résultats: Les mères qui étaient préoccupées par une perte ou un gain de poids rapportaient utiliser davantage de pression à manger et de restriction. Cette restriction était également utilisée par les mères préoccupées par un apport alimentaire élevé en général ainsi qu'un apport alimentaire faible avec une consommation plus fréquente d'un type d'aliments. Les mères préoccupées par une faible consommation d'aliments nutritifs ont rapporté utiliser de la pression à manger. La surveillance alimentaire, la restriction d'aliments peu nutritifs et la pression à manger des aliments nutritifs ont été rapportées par des mères préoccupées par la santé en général.

Conclusion: Les pratiques alimentaires de ces mères étaient influencées par leurs préoccupations. Les préoccupations de ces mères semblaient être une réponse aux habitudes alimentaires malsaines et/ou aux fluctuations du poids de leur enfant.

Pertinence pour le domaine de la diététique: Une compréhension des préoccupations et pratiques alimentaires des parents immigrants noirs permettrait aux diététistes de mieux adapter les services nutritionnels aux besoins de cette population.

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