6th Canadian Obesity Summit

obesity canada / obésité canada

April 23–26, 2019

WESTIN OTTAWA
OTTAWA, ONTARIO

Workshops and Meeting April 22

obesitycanada.ca/summit-2019/
#6COS

2019

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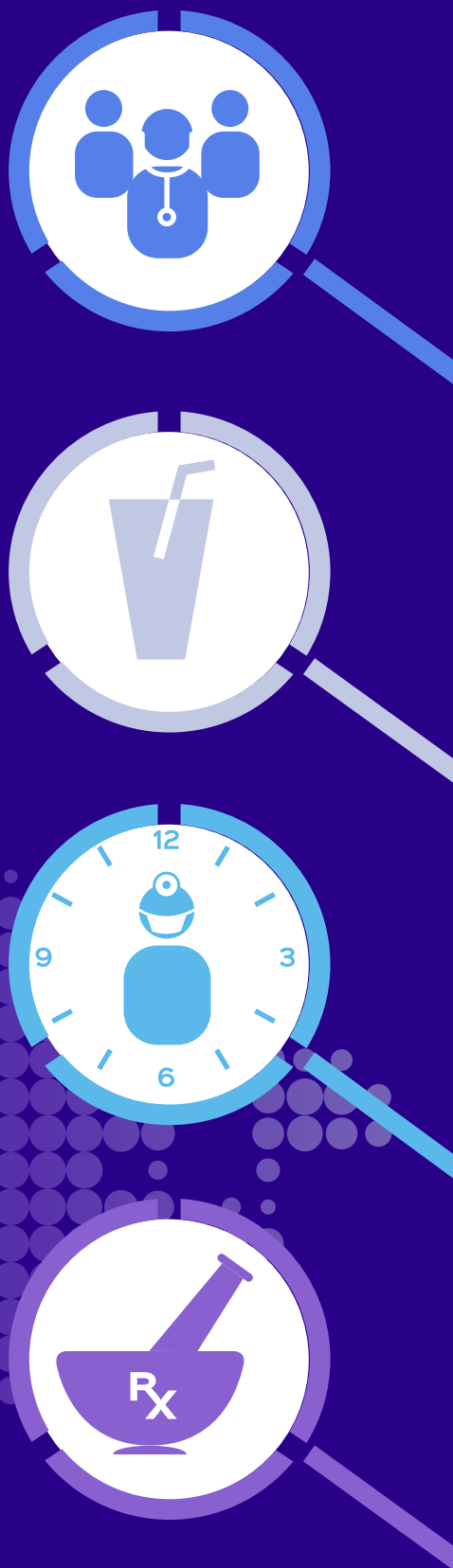
REPORT CARD ON ACCESS TO

OBESITY TREATMENT FOR ADULTS IN CANADA 2019

obesitycanada.ca/resources/report-card



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Mayor/Maire

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Courriel : Jim.Watson@ottawa.ca

On behalf of Members of Ottawa City Council, it is my distinct pleasure to extend a warm welcome to all those participating in the **6th Canadian Obesity Summit**, taking place at the Westin Ottawa, on unceded Algonquin territory, from April 23rd to 26th 2019.

I am equally delighted that Canada's fourth largest city, and an important centre of cutting-edge research and higher education, has been selected as the host venue for this interdisciplinary gathering. Health practitioners, researchers, policymakers, and industry stakeholders working in sectors relating to obesity will gain a greater insight into advanced studies pertaining to the causes, complications, treatments and prevention of obesity.

As Head of Council, I want to acknowledge the Canadian Obesity Summit Planning Committee, guest speakers, facilitators and sponsors for dedicating efforts, expertise, services and resources to the successful organization of this educational Summit.

Tourists will want to explore the National Arts Centre, and its spectacular new façade. The newly expanded Ottawa Art Gallery will amaze visitors with captivating works by the Group of Seven.

Allow me to offer my best wishes to the participants for a productive and rewarding assembly, as well as to the visitors for a most enjoyable stay in Ottawa.

Sincerely,

J'ai l'immense plaisir de souhaiter une cordiale bienvenue, au nom des membres du Conseil municipal d'Ottawa, à tous les participants au **6e Sommet canadien sur l'obésité**, qui aura lieu à l'hôtel Westin Ottawa, sur un territoire algonquin non cédé, du 23 au 26 avril 2019.

Je suis également ravi que la quatrième ville en importance du Canada, pôle majeur de recherche de pointe et d'enseignement supérieur, ait été choisie comme ville-hôte pour ce rassemblement interdisciplinaire. Des professionnels de la santé, des chercheurs, des décideurs et des intervenants de l'industrie qui travaillent dans des secteurs se rapportant à l'obésité comprendront mieux les études avancées qui portent sur les causes, les complications, les traitements et la prévention de l'obésité.

En tant que chef du Conseil, je tiens à remercier le comité de planification du Sommet canadien sur l'obésité, les conférenciers invités, les animateurs et les commanditaires de consacrer leurs efforts, leur savoir-faire, leurs services et leurs ressources à l'organisation de ce sommet éducatif pour en assurer le succès.

Les touristes voudront explorer le Centre national des Arts, dont la spectaculaire nouvelle façade. La Galerie d'art d'Ottawa, nouvellement agrandie, fascinera les visiteurs, grâce à des œuvres captivantes du Groupe des Sept.

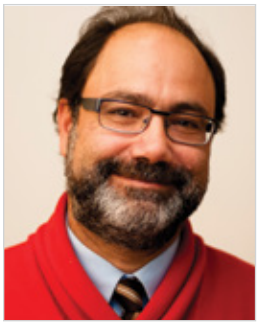
Permettez-moi de souhaiter aux participants une assemblée fructueuse et enrichissante et aux visiteurs un séjour des plus agréables à Ottawa.

Meilleures salutations.

Jim Watson, Mayor/Maire

Message from OC Science Chair & Scientific Director

Gordon A. Zello, PhD
Chair, Science Committee, Obesity Canada
Professor, Nutrition and Dietetics
College of Pharmacy and Nutrition
University of Saskatchewan



Arya M. Sharma, MD/ PhD, FRCPC
Professor of Medicine
University of Alberta
Scientific Director, Obesity Canada

A message from Dr. Gordon A. Zello, Chair, Obesity Canada Science Committee & Dr. Arya M. Sharma, Scientific Director, Obesity Canada

Creating an Obesity Community
After six Summits over more than a decade, where are we?

Welcome to the 6th Canadian Obesity Summit. We are grateful you have made the choice to be here, learning and sharing with peers, creating new connections and solidifying your place in Canada's wider obesity prevention and treatment community.

This community is what the Summit has always been about.

More than a decade ago, when our first event was held in Alberta, Obesity Canada recognized that all of the pieces needed to prevent and treat obesity effectively seldom had any contact with one another. Physicians went to physicians' meetings, dietitians went to dietetics conferences, policy makers went to policy workshops, and so on.

What the millions of Canadians living with obesity (and the millions more at risk for developing it) needed was a wider community of practice, one with like-minded values, a shared lexicon and common goals. The only pathway to creating that community was to get all of you, from across disciplines and sectors, into the same room to share your knowledge and expertise and to be inspired by one another.

Canadians still need this community to grow and flourish, and, while we have come a long way since 2009, we still have a lot of work to do, together.

If you are new to our community, welcome; if you have been with us before, welcome back. Our hope this week is that all of you are challenged, surprised and energized by what you learn and who you meet here in Ottawa.

Accreditation

The Canadian Obesity Summit is accredited!

SCOPE
Specialist Certification of Obesity Professional Education

By attending this program, you are eligible for 4.0 SCOPE points. SCOPE is an internationally-acclaimed obesity education program that helps health professionals understand obesity and how to treat, management and prevent it. You can find more information about SCOPE at www.worldobesity.org/scope.

CPD CERTIFIED
The CPD Certification Service
Collective Mark

This program is also Continuing Professional Development (CPD) certified. This learning activity has reached the required Continuing Professional Development standards and benchmarks. The learning value has been scrutinised to ensure integrity and quality. The CPD Certification Service provides recognised independent CPD accreditation compatible with global CPD requirements.

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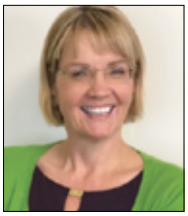

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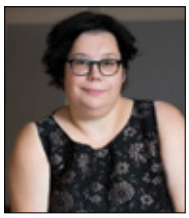
Edmonton, AB – On Leave Education Coordinator

Brenndon Goodman
Toronto, ON, Student & New Professional Committee Representative



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Kelly Moen
Vice Chair, Victoria, BC

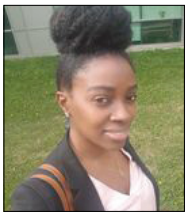
Lisa Schaffer
Chair, Vancouver, BC

Candace Vilhan
Ottawa, ON

OC Science Committee

Geeta Achyuthan, MD
Family physician in private practice, Regina, SK

Laurent Biertho, MD
Associate Professor, Laval University Quebec, QC



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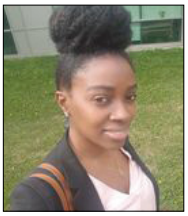
Head, Division of Nutrition and Dietetics, University of Saskatchewan, Saskatoon, SK

OC Student & New Professional National Executive



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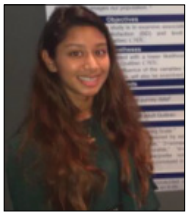

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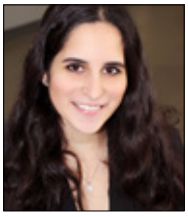

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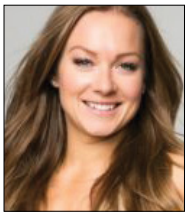

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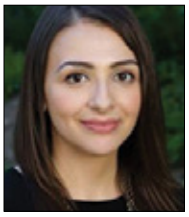

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Is obesity a chronic disease?

Medical associations around the world, including the Canadian Medical Association, have recognized that obesity is not a lifestyle choice, it is a chronic disease that requires long-term management.

Recent data shows that more than 25% of Canadian adults are now living with obesity—a condition that may increase the risk of other chronic conditions, such as hypertension, heart disease, and some cancers.

Novo Nordisk believes that all Canadians living with obesity deserve to be supported in the management of their condition—just like any other chronic disease.

That is why Novo Nordisk is investing in obesity research and educational programs for healthcare professionals and Canadians living with obesity.

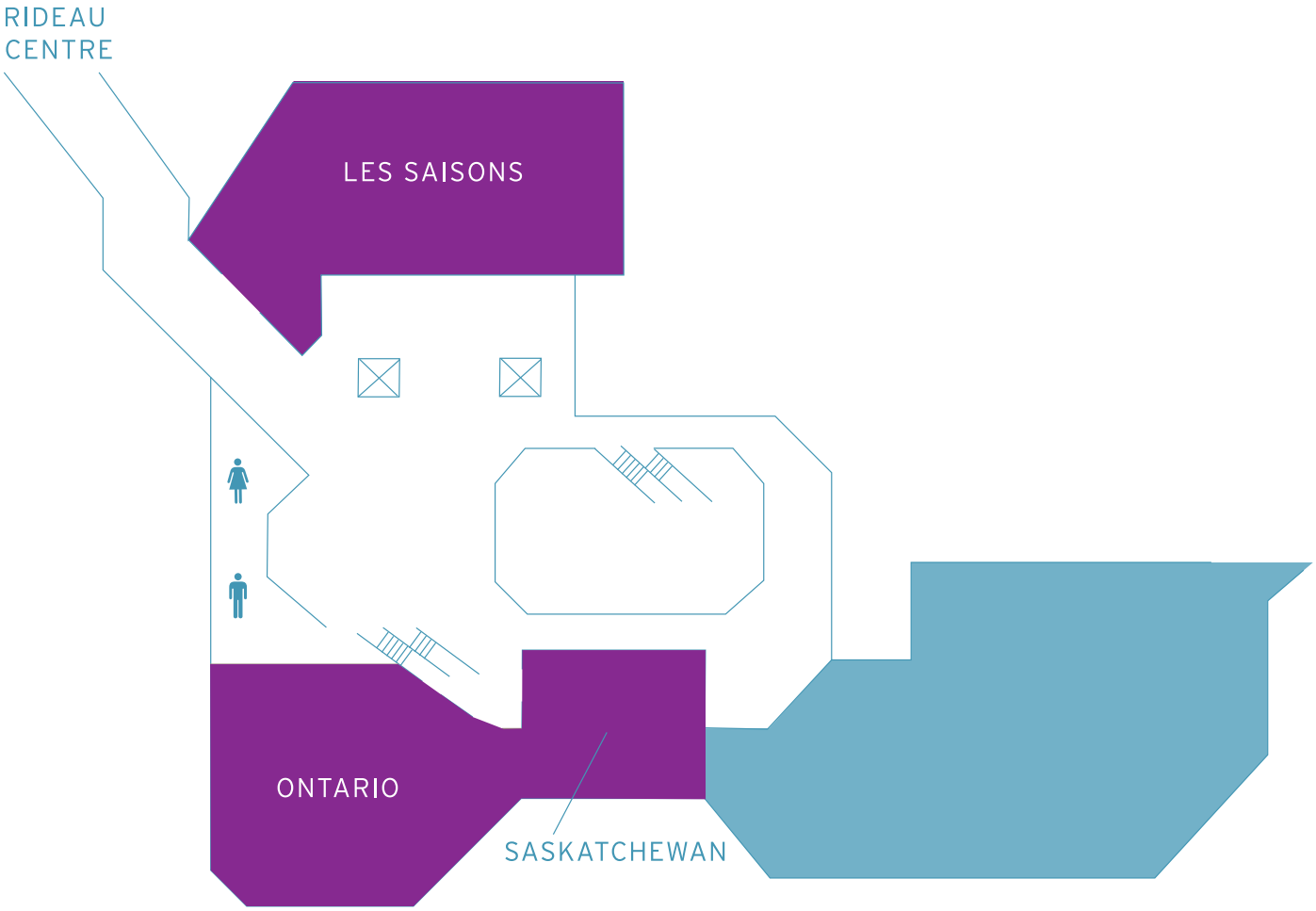
Follow us on

Let's change the way we think about obesity. To learn more about Novo Nordisk's commitment to obesity management in Canada, visit rethinkobesity.ca

novo nordisk®

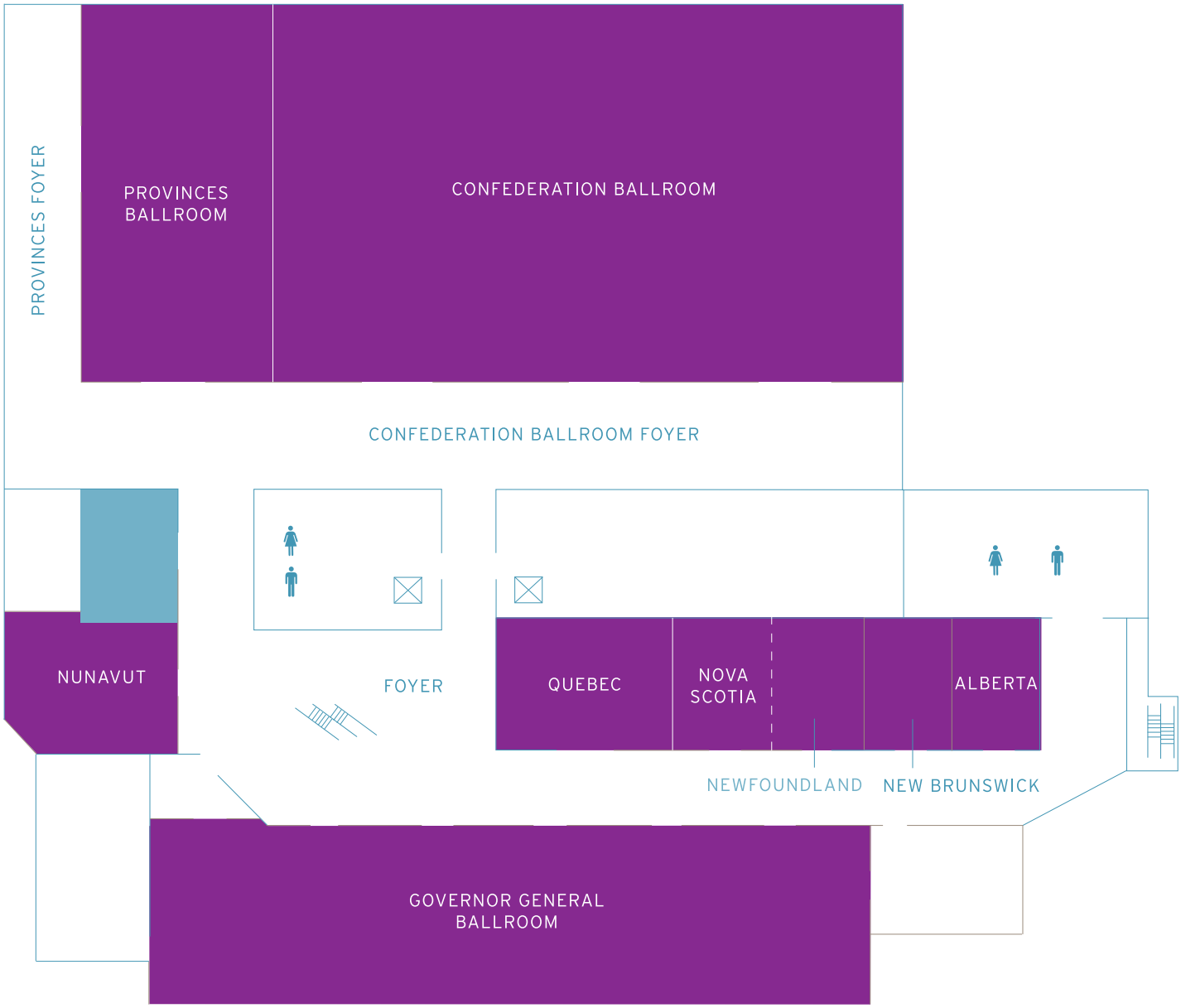
Venue / Hotel Floorplans

Level Three



Venue / Hotel Floorplans

Level Four



Awards & Grants

Obesity Canada (OC) Distinguished Lecturer Award

The OC Distinguished Lecturer Award will be presented in recognition of outstanding contributions to the obesity research community. The recipient will be announced at the opening ceremonies of the Canadian Obesity Summit, and will deliver the keynote address.

TOPS New Investigator Research Award

This award recognizes an individual for a singular achievement or their career contributions to research in the field of obesity. This award is made possible through an annual grant from the Take Off Pounds Sensibly (TOPS). The award recipient will receive a plaque, a $2,500 prize, and a travel grant to attend the Canadian Obesity Summit. The award will be presented during the closing ceremonies at which the recipient will be invited to present the TOPS New Investigator Research Award Lecture. Award recipients must be able to attend the Canadian Obesity Summit.

OC-SNP Rising Star

This award recognizes an individual who has promoted the work of OC-SNP through individual work, Chapter initiatives, mentoring SNPs, speaking at Obesity Canada or OC-SNP events, helping OC-SNP chapters or other similar activities.

OC-SNP Champion Award

This award recognizes an active OC-SNP chapter (or individual who belongs to a OC-SNP chapter) who has promoted the work of OC-SNP.

OC-SNP Faculty Supervisor Award

This award aims to reward and recognize a faculty member who has demonstrated excellence in their teaching, research and service to the University, community and their trainees (students, clinical or post-doctoral fellows). This award also recognizes a faculty member who has excelled in nurturing trainee research development in his/her discipline, who has demonstrated outstanding teaching abilities and who exhibits a passion and enthusiasm for teaching and learning.

Student Poster and Oral Awards

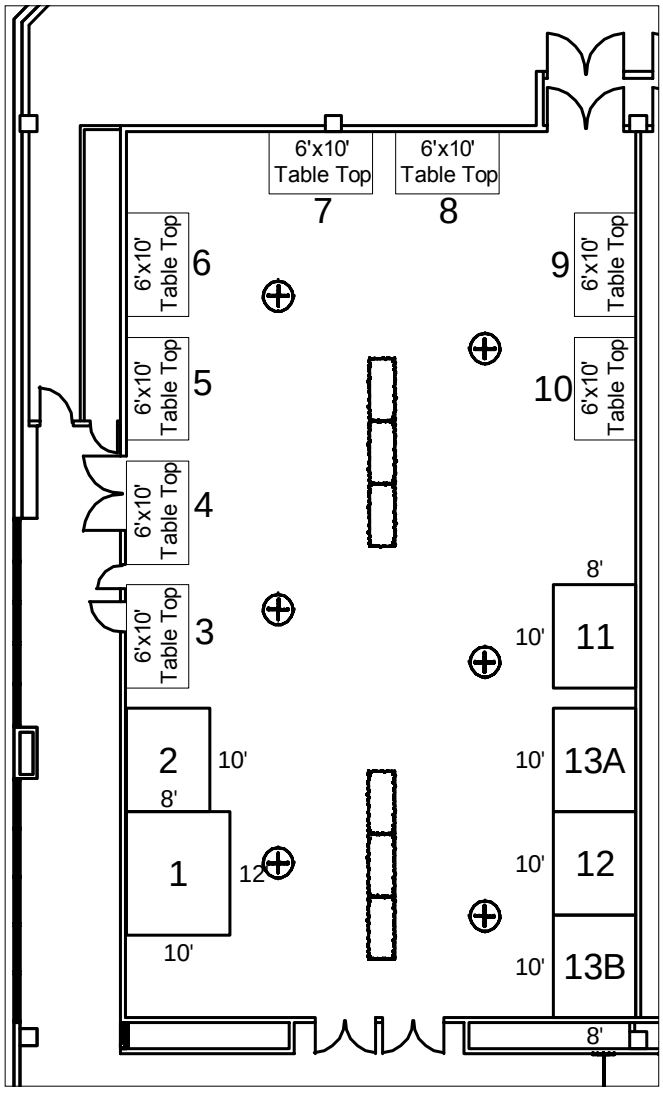
All posters should be up on their assigned poster board(s) in the Confederation Foyer by 9:30 am on Wednesday April 24th and should be taken down after 4:30 pm on Friday April 26th. Poster presenters are expected to be at their posters from 11:45 am –12:45 pm on Wednesday and Thursday. The best student poster and oral presentations will be awarded cash prizes at the Canadian Obesity Summit. The decision will be made on-site by a board of referees and the awards will be presented at the Closing Ceremonies on Friday April 26th.

EXHIBITION

Province Ballroom & Confederation Foyer, 4th Level

	DATE	TIME
Exhibit Area Hours	Tuesday, April 23,	18:30 – 20:30 (Welcome Reception)
	Wednesday, April 24	09:30 – 16:30
	Thursday, April 25	09:30 – 16:30
	Friday, April 26	09:30 – 16:30

EXHIBIT COMPANY/ORGANIZATION	BOOTH #		
Bausch Health	1	Childhood Obesity Foundation	8
Nestlé Health Science Canada	2	NuPasta (Canada) Inc.	9
My Weight What to Know	3	InBody Canada (Jedco Inc)	10
Celebrate Vitamins	4	PGX Natural Factors	11
TOPS	5	Takeda	12
The Bridge Youth & Family Services	6	Novo Nordisk Canada Inc.	13A & 13B
Obesity Canada	7		



Download the official Summit agenda app!

Available for free from Google Play and the Apple Store.*

Search for 6th Canadian Obesity Summit

*Limited print agendas will be available for $30 at the registration desk.

SOCIAL EVENTS

Welcome Networking Reception

Tuesday, April 23rd

18:30 – 20:30

Province Ballroom

The Summit Planning Committees invite all delegates to the 6th Canadian Obesity Summit Welcome Reception. Join us for a fun opportunity to meet colleagues, network and visit the exhibitors.

Summit Social – Trivia

Tuesday, April 23rd

20:30 – TBC

Bonaventure Parlour, 23rd Floor, Westin Ottawa Hotel

(Optional social event organized by the OC-SNP National Executive.) Participants attending the networking reception are encouraged to keep the networking going and participate in some friendly trivia. Come meet your hosts, the OC-SNP National Executive in the Presidential Suite and exercise your trivia "muscles".

Summit Reception with PEC Members

Wednesday, April 24th

17:30 – 18:30

TwentyTwo, 22nd floor of The Westin Ottawa

Shimmering like a jewel atop the Westin Ottawa, Twenty Two affords a panoramic view of Parliament Hill, the Ottawa River and the Gatineau Hills beyond. End the day with an opportunity for informal networking with members of the Public Engagement Committee. Open to all conference delegates.

Summit Social – Pool Hall

Wednesday, April 24th

20:30 – 22:30

Maclaren's Pool Hall, 301 Elgin St Ottawa

(Optional social event organized by the OC-SNP National Executive.) Meet in the Westin lobby at 8pm to walk together to Maclaren's Pool Hall, Ottawa's premier Sports Bar/Pool Hall/ Restaurant. Whether you'd like to enjoy a nice cold pint or play a friendly game of pool with new Summit friends it's a perfect evening spot to mingle and have fun!

OC-SNP Networking Workshop directly followed by off-site Summit Social at the Museum of Nature & Lieutenant's Pump British Pub

Thursday, April 25th

16:30 - 21:00

Networking Workshop-Governor General Ballroom; Museum of Nature-240 McLeod St. Ottawa; Lieutenant's Pump British Pub – 361 Elgin St Ottawa

(Optional social event organized by the OC-SNP National Executive.) Take a break from the scientific sessions to participate in an interactive networking workshop, followed by a walk together to the Canadian Museum of Nature (20 min walk & free museum admission) where you can explore their award-winning exhibits until 8pm. The group will then head to the Lieutenant's Pump located on Ottawa's historic Elgin Street for dinner (at your own expense). This event is open to all conference delegates.

Summit Closing Ceremonies & Awards

Friday, April 26th

16:30 – 17:30

Governor General Ballroom

Find out who is this year's TOPS New Investigator Award winner. All award winners will be announced and prizes will be delivered. Winner's must be present to win cash prizes.

Summit Social – Heart & Crown ByWard Market

Friday, April 26th

18:30

67 Clarence Street

(Optional social event organized by the OC-SNP National Executive.) The Heart & Crown, in Ottawa's historic ByWard Market, consists of 5 pubs under 1 roof with 6 patios that make-up what is locally known as Ottawa's Irish Village. A favourite amongst the Irish community, the Heart & Crown is amongst Ottawa's best known watering holes. The Irish Village consists of the Heart & Crown, the Snug Pub, Peter Devine's, Mother McGintey's and Roisin Dubh (The Black Rose). Featuring Irish-inspired dishes, live music daily and domestic & international sporting events; there's a little something for everybody. "Flash your Badge" to receive 15% off food. No cover before 9:30 pm. This event is open to all conference delegates.

GROUP EXERCISE OPPORTUNITIES

No previous experience or special equipment required. Offer on a first come, first served basis.

Wednesday, April 24th

6:30 – 7:30 am

Walking Group & Running Group
Hosted by OC-SNP- Maryam Kebbe, Farah Islam, Megan Lamb: Whether you are an avid runner/walker or just hoping to get some cardio in to start your day please join us in the Westin hotel lobby dressed for the weather for a route approximately 45 min in length.
Westin Hotel Lobby

6:30 – 7:30 am

Group Fitness Yoga Class
Hosted by Kristen Reilly: Meet in the Saskatchewan Room dressed to exercise. Perfect for all levels with options for advance yogis. You will walk away with modifications and corrections to movements you know and love.
Saskatchewan Room

Thursday, April 25th

6:30 – 7:30 am

Walking Group & Running Group
Hosted by OC-SNP-Rebecca Christensen, Melissa Fernandez, faculty run leader-Dr. Laurie Twells : Whether you are an avid runner/walker or just hoping to get some cardio in to start your day please join us in the Westin hotel lobby dressed for the weather for a route approximately 45 min in length.
Westin Hotel Lobby

6:30 – 7:30 am

Group Fitness Yoga Class
Hosted by Stephanie Paplinskie: Meet in the Saskatchewan Room dressed to exercise. Perfect for all levels with options for advance yogis. You will walk away from this relaxing practice with movements you can take home with you.
Saskatchewan Room

Friday, April 26th

6:30 – 7:30 am

Walking Group & Running Group
Hosted by OC-SNP-Joyla Furlano, Kerri Delaney, Nadia Browne: Whether you are an avid runner/walker or just hoping to get some cardio in to start your day please join us in the Westin hotel lobby dressed for the weather for a route approximately 45 min in length.
Westin Hotel Lobby

6:30 – 7:30 am

Group Fitness Class Ab Attack
Hosted by Taniya Nagpal: Meet in the Saskatchewan Room dressed to exercise. Work on your agility, strength and endurance. Followed by a core strengthening ab workout. Whether you are a beginner or a pro, this class is for everyone.
Saskatchewan Room

GENERAL INFORMATION

Conference Dates and Venue

April 23–26, 2019
Westin Ottawa Hotel
11 Colonel By Dr
Ottawa, Ontario K1N 9H4
Tel.: +1 613-560-7000
Toll Free: +1.888.627.8528
https://www.marriott.com/hotels/travel/yowwi-the-westin-ottawa

Access/Security

Names badges will be provided to all attendees, sponsors and exhibitors and will be available for pick up at the 6th Canadian Obesity Summit Registration Desk, in the Nunavut Foyer on the 4th floor. Please wear your badge at all times as it is your admission to all conference sessions, the exhibit area, and non-ticketed social events. There is a $66 CAD reprint fee for any lost or misplaced name badges.

Conference Language

The official language of the 6th Canadian Obesity Summit is English. All sessions will be conducted in English.

Exhibit Area Hours:

The Exhibits are located in the Province Ballroom and Foyer and will be open at the following times:
Tuesday, April 23: 6:30pm – 8:30pm (Welcome Reception)
Wednesday, April 24: 9:30 am – 4:30 pm
Thursday, April 25: 9:30 am – 4:30 pm
Friday, April 26: 9:30 am – 4:30 pm

Lost Property

Please report any lost or unattended items immediately to the Registration Desk located in the Nunavut Foyer on the 4th floor. Should you lose anything while at the conference, please enquire at the Registration Desk where any recovered lost property will be held. At the end of the conference, all unclaimed lost and found items will be given to the Westin Ottawa Hotel.

Parking

The hotel's parking is located at the Rideau Centre IMPARK lot. Attendees can access the parking lot through the front of the hotel of off of Daly Avenue.

Self-parking: $30 CAD/night, with unlimited access
Valet service is also available: $48 CAD/night, with unlimited access

Electric Vehicles – complimentary

Photographer

An official photographer will be present during the conference. By registering for the 6th Canadian Obesity Summit, you agree to have your picture taken. Photography may be used for marketing purposes for future conference events.

Health Breaks & Lunch*

Tuesday, April 23		
10:00 am – 10:30 am	AM Health Break	Governor General Foyer
12:00 pm – 1:00 pm	Lunch	Governor General Foyer
2:30 pm – 3:00 pm	PM Health Break	Governor General Foyer
Wednesday, April 24		
9:30 am – 10:00 am	AM Health Break	Province Ballroom
11:30 am – 1:30 pm	Lunch Symposium – Novo Nordisk	Confederation Ballroom
11:30 am – 2:00 pm	Lunch	Province Ballroom
4:00 pm – 4:30 pm	PM Health Break	Province Ballroom
Thursday, April 25		
9:30 am – 10:00 am	AM Health Break	Province Ballroom
11:30 am – 1:00 pm	Lunch Symposium – Bausch Health	Confederation Ballroom
11:30 am – 2:00 pm	Lunch	Province Ballroom
4:00 pm – 4:30 pm	PM Health Break	Province Ballroom
Friday, April 26		
9:30 am – 10:00 am	AM Health Break	Province Ballroom
11:30 am – 1:30 pm	OC Local Chapter National Workshop	Les Saisons
11:30 am – 2:00 pm	Lunch	Province Ballroom
4:00 pm – 4:30 pm	PM Health Break	Province Ballroom

* Health breaks and lunch are included in conference registration

Registration Desk

The Registration Desk is located in the in the Nunavut Foyer on the 4th floor and will be open during the following times:

Monday, April 22 .....4:00 pm – 6:00 pm
Tuesday, April 23 .....7:30 am – 6:00 pm
Wednesday, April 24 .....7:30 am – 5:30 pm
Thursday, April 25.....7:30 am – 5:30 pm
Friday, April 26.....8:00 am – 4:30 pm

Smoking Policy

The Westin Ottawa Hotel is a non-smoking venue. Attendees must refrain from smoking or using electronic smoking devices (including electronic vapors) in all Session Rooms and Ballrooms. Smoking is also prohibited within customer service areas of food and/or liquor establishments (indoor or open patios).

WIFI

Complimentary wireless internet is included in the conference areas.

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Disclaimer

All reasonable endeavors will be made to hold the 6th Canadian Obesity Summit and to present the printed program as scheduled under circumstances which assure the comfort and safety of the Conference Participants. However, Obesity Canada and its branches, and their respective directors, officers, employees, representatives or agents, shall not be liable in any manner whatever to any person as a result of the cancellation of the Conference or any of the arrangements, programs or events connected therewith; nor shall any of the foregoing entities or persons be liable in any manner whatever for any loss, injury, damage or inconvenience which may be suffered by any person while travelling to or from, or during such person's presence in, Canada in connection with the Conference. Participants are advised to consider procuring their own insurance against any such occurrences.

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SCHEDULE-AT-GLANCE

MONDAY, APRIL 22, 2019

MONDAY

08:00–17:00	Closed Meeting (by invitation only) 5AsT Developing Educational Partnerships for Improving Obesity Prevention & Management Training in Primary Care Saskatechewan
16:00–18:00	Registration Desk Opens Nunavut

TUESDAY, APRIL 23, 2019

TUESDAY

07:30–18:00	Registration Desk Opens Nunavut			
08:30–10:00	**WS.01** Advancing Obesity Prevention and Management Through Education and Collaboration: Efforts of an International Coalition (Obesity Coalition) Confederation Ballroom	**WS.02** Managing Obesity as a Chronic Condition: The Role of Behaviour Change Counselling Governor General II	**WS.04** What Every Clinician Needs to Know Post-Bariatric Surgery Governor General III	Closed Meeting (by invitation only)) Evidence and Better Practices in Obesity Management: Implications for Policy & Practice Workshop Les Saisons
10:00–10:30	Networking & Health Break – Governor General Foyer			
10:30–12:30	**WS.01** Advancing Obesity Prevention and Management Through Education and Collaboration: Efforts of an International Coalition (Obesity Coalition) Confederation Ballroom	**WS.02** Managing Obesity as a Chronic Condition: The Role of Behaviour Change Counselling Governor General II	**WS.04** What Every Clinician Needs to Know Post-Bariatric Surgery Governor General III	Closed Meeting (by invitation only)) Evidence and Better Practices in Obesity Management: Implications for Policy & Practice Workshop Les Saisons
12:00–13:00	Lunch – Governor General Foyer			
13:00–14:30	**WS.01** Advancing Obesity Prevention and Management Through Education and Collaboration: Efforts of an International Coalition (Obesity Coalition) Governor General I	**WS.03** Patients are a Virtue: Adding Lived Experience to your Research Team Governor General II	**WS.04** What Every Clinician Needs to Know Post-Bariatric Surgery Governor General III	National Exec Les Saisons
14:30–15:00	Networking & Health Break – Governor General Foyer			
15:00–16:30	**WS.01** Advancing Obesity Prevention and Management Through Education and Collaboration: Efforts of an International Coalition (Obesity Coalition) Governor General I	**WS.03** Patients are a Virtue: Adding Lived Experience to your Research Team Governor General II	**WS.04** What Every Clinician Needs to Know Post-Bariatric Surgery Governor General III	**WS.15** Workshop Person-Centered Obesity Care: Practical Guidelines and Strategies for Clinicians, Educators, and Policy Makers Les Saisons
17:00–18:30	Opening Ceremonies & Obesity Canada (OC) Distinguished Lecturer Award Confederation Ballroom			
18:30–20:30	Welcome Reception Province Ballroom			
20:30	Summit Social – Please see page 16			

SCHEDULE-AT-GLANCE

WEDNESDAY

WEDNESDAY, APRIL 24, 2019

07:30–17:30	Registration Desk Opens Nunavut					
07:00–08:00	OC-SNP Mentorship Breakfast Les Saisons					
08:15–09:30	Weight of Living: Personal Perspective **Mini Review 1** At Risk Population Condederation Ballroom			Weight of Living: Personal Perspective **Mini Review 2** Adult Clinical I Governor General Ballroom		
09:30–10:00	Networking & Health Break – Province Ballroom & Confederation Foyer					
09:30–16:30	Exhibitor & Poster Viewing Province Ballroom & Governor General Foyer					
10:00–11:00	**Mini Review 3** Health Canada/Heart & Stroke: Healthy Eating Strategy Confederation Ballrom			**Mini Review 4** Weight Bias Governor General Ballroom		
11:00–11:30	**Pecha Kucha Presentations 1:** Food Environments Confederation Ballrom			**Pecha Kucha Presentations 2:** Weight Bias Governor General Ballroom		
11:30–13:30	Lunch Symposia: TAKE ACTION: Finding common ground to improve obesity management – Condederation Ballroom					
11:30–14:00	Lunch, Exhibits & Poster Viewing* – Province Ballroom & Confederation Foyer					
14:00–16:00	**CS.01** Pediatrics – Concurrent Presentation New Brunswick	**CS.02** Physical Activity – Concurrent Presentation Confederation Ballroom	**CS.03** Clinical Mental Health – Concurrent Presentation Alberta	**WS.07** CIHR Hosted Symposium: New Horizons in Bariatric Care Governor General Ballroom	**WS.05** Obesity and Pregnancy Quebec	**WS.06** Mindfulness and Acceptance Based Behavioural Interventions for Weight Loss and Weight Maintenance Nova Soctia / Newfoundland
16:00–16:30	Networking & Health Break – Province Ballroom & Confederation Foyer					
16:30–17:30				EveryBODY Matters : (by invitation only) Les Saisons		**WS.06** Mindfulness and Acceptance Based Behavioural Interventions for Weight Loss and Weight Maintenance Nova Soctia / Newfoundland
17:30–18:30	Networking Reception Hosted by the OC Public Engagement Committee TwentyTwo Ballroom					
18:30	Dinner on Own					
20:30	Summit Social – Please see page 16					

* Poster Judging will occur 11:45–12:45

SCHEDULE-AT-GLANCE

THURSDAY, APRIL 25, 2019

07:30–17:30	Registration Desk Opens Nunavut				
08:15–09:30	Weight of Living: Personal Perspective **Mini Review 5** Physical Activity Confederation Ballrom	Weight of Living: Personal Perspective **Mini Review 6** Mental Health Governor General Ballroom	Clinical Practice Guidelines Pediatrics Working Group Meeting (by invitation only) Les Saisons		
09:30–10:00	Networking & Health Break – Province Ballroom				
10:00–11:00	**Mini Review 7** Pediatrics Confederation Ballroom	**Mini Review 8** Energy Homeostasis Governor General Ballroom	Clinical Practice Guidelines Adult Meeting (by invitation only) Les Saisons		
11:00–11:30	**Pecha Kucha Presentations 3:** Pediatrics Confederation Ballroom	**Pecha Kucha Presentations 4:** Energy Homeostasis Governor General Ballroom			
11:30–13:00	Lunch Symposia: Neurobiology of appetite regulation. Leveraging pharmacotherapy and behaviourial therapy in weight management. Confederation Ballroom				
11:30–14:00	Lunch, Exhibits & Poster Viewing* –Province Ballroom & Confederation Foyer			PEC Meeting (by invitation only) BC	
14:00–16:00	**CS.04** Nutrition – Concurrent Presentation Alberta	**CS.05** Reproductive Health and Infancy – Concurrent Presentation New Brunswick	**CS.06** Clinical II – Concurrent Presentation Confederation Ballroom	**WS.09** Utilizing National Guidelines for Quality Care of Hospitalized Patients with Bariatric Care Needs Quebec	**WS.10** Understanding Weight Regain and How to Manage it Governor General Ballroom
16:00–16:30	Networking & Health Break – Province Ballroom & Confederation Foyer				
16:30–17:30	**WS.11** OC-SNP Networking Workshop Governor General Ballroom				
17:30–20:30	Summit Social – Please see page 16				

* Poster Judging will occur 11:45–12:45

SCHEDULE-AT-GLANCE

FRIDAY

FRIDAY, APRIL 26, 2019

08:00–16:30	Registration Desk Opens Nunavut				
08:15–09:30	Weight of Living: Personal Perspective **Mini Review 9** Nutrition Confederation Ballrom		Weight of Living: Personal Perspective **Mini Review 10** Clinical Obesity Governor General Ballroom		
09:30–10:00	Networking & Health Break – Province Ballroom & Confederation Foyer				
10:00–11:00	**Mini Review 11** Reproductive Health Confederation Ballroom		**Mini Review 12** Canadian Association of General Surgeons (CAGS) Session: The Optimal Diabetic Surgical Operation-A Debate-Session Governor General Ballroom		Canadian Obesity Advocacy Network (by invitation only) Les Saisons
11:00–11:30	**Pecha Kucha Presentations 5:** Reproductive Health Confederation Ballroom		**Pecha Kucha Presentations 6:** Bariatric Surgery Governor General Ballroom		
11:30–14:00	**WS.16** How Can We Advance Research on Obesity Prevention During Infancy? Nova Scotia / Newfoundland		OC Local Chapter National Workshop Les Saisons		PEC Meeting (by invitation only) BC
11:30–14:00	Lunch, Exhibits & Poster Viewing – Province Ballroom & Confederation Foyer				
14:00–16:00	**CS.07** Appetite – Concurrent Presentation New Brunswick	**CS.08** Clinical III – Concurrent Presentation Confederation Ballroom	**CS.09** Behavioural – Concurrent Presentation Alberta	**WS.12** Exploration of Digital Health and Group-Based Programming to Support Families to Adopt Healthy Behaviours Quebec	**WS.13** How to Assess the Multiple Improvements Promoted by an Interdisciplinary Treatment Approach. The NEMO's Criteria of Success Nova Sotia / Newfoundland	**WS.14** Clinical Cases in Obesity Pharmacotherapy Governor General Ballroom
16:00–16:30	Networking & Health Break - Province Ballroom & Confederation Foyer					
16:30–17:30	Summit Closing Ceremony & Awards Governor General Ballroom					
18:30	Summit Social – Please see page 16					

SATELLITE MEETINGS

Monday, April 22, 2019

Bausch National Advisory Board Meeting *(By invitation only)*

Developing Educational Partnerships for Improving Obesity Prevention & Management Training in Primary Care (By invitation only) Globally, healthcare providers play a vital role in the prevention and management of obesity, but are inadequately educated on obesity management. Given the high prevalence of obesity and its role in chronic diseases, innovative educational programs are needed throughout the healthcare system to improve knowledge and competencies in preventing and treating patients with obesity. This international coalition to improve training in obesity prevention and management was formed in an effort to change educational standards and help educators navigate the challenges and roadblocks involved with developing and implementing an obesity curriculum.

Tuesday, April 23, 2019

Evidence and Better Practices in Obesity Management: Implications for Policy & Practice *(By invitation only)*

The objective of this initiative is to bring together researchers, health care professionals, policy makers working in chronic disease prevention and management policies, and individuals living with obesity to share the latest obesity management evidence, better practices, and lived experiences of individuals with obesity and to discuss implications for policy and practice.

Wednesday, April 24, 2019

EveryBODY Matters *(By invitation only)*

The EveryBODY Matters Collaborative represents a strong multi-disciplinary partnership of weight bias and obesity stigma researchers from across disciplines and research areas. The goal is to go beyond simply raising awareness of the existence of weight bias and stigma in Canada, towards promoting behaviour, practice, and policy change among key stakeholders. The EveryBODY Matters Collaborative is hosted under the umbrella of Obesity Canada.

Thursday, April 25, 2019

Clinical Practice Guidelines (CPG) Pediatrics working group meeting *(By invitation only)*

The CPG Pediatrics working group is to being preliminary development of the Clinical Practice Guidelines (CPG) for Obesity in Pediatrics. The purpose of the guidelines is to synthesize the best available evidence to guide best practice in the area of obesity management for children and their families for use by healthcare providers.

Clinical Practice Guidelines (CPG) Adult Executive meeting *(By invitation only)*

The CPG Executive was established to develop the 2018 Clinical Practice Guidelines (CPG) for Obesity in Adults for the Canadian Association of Bariatric Physicians and Surgeons (CABPS) and Obesity Canada (OC). The purpose of the guidelines is to synthesize best available evidence to guide best practice in the area of obesity management for adult bariatric patients for use by healthcare providers.

Public Engagement Committee (PEC) *(By invitation only)*

The Public Engagement Committee (PEC) is the voice of individuals affected by obesity within Obesity Canada. The mission of the committee is to build a vibrant community to empower people with obesity. The committee strives to elevate the voice of those affected by obesity in Canada through education, advocacy and support.

SATELLITE MEETINGS

Friday, April 26, 2019

Canadian Obesity Advocacy Network (COAN) *(By invitation only)*

The Obesity Advocacy Network is a diverse group of organizations who have come together to change how Canada perceives and approaches obesity by educating and advocating for public policies and increased funding for obesity education, research, treatment, and care.

Public Engagement Committee (PEC) *(By invitation only)*

The Public Engagement Committee (PEC) is the voice of individuals affected by obesity within Obesity Canada. The mission of the committee is to build a vibrant community to empower people with obesity. The committee strives to elevate the voice of those affected by obesity in Canada through education, advocacy and support.

Saturday, April 27, 2019

Obesity Canada Public Workshop *(Open to the public, registration required)*

Obesity Canada (OC) is dedicated to improving the lives of Canadians affected by obesity and today is the first of what we hope will be many opportunities to connect with Canadian's just like you. Today's event is the result of the vision and passion of OC staff and our amazing Public Engagement Committee (PEC). PEC acts as the voice of individuals affected by obesity within OC. We have first hand experiences of living with obesity and we strive to elevate the voice of those affected by obesity in Canada. Our mission is to build a vibrant community to empower people with obesity by educating credibly, advocating passionately and inspiring consistently.
Our hope is that you find a sense of community, gain new insights on the complex disease of obesity, feel empowered and informed about the reality of living with obesity, and are inspired to take action and join us in changing the conversation about obesity.

WORKSHOPS-AT-A-GLANCE

TUESDAY, APRIL 23, 2019			
WS .01	Advancing Obesity Prevention and Management Through Education and Collaboration: Efforts of an International Coalition (Obesity Coalition)	08:30 – 16:30	Confederation Ballroom & Govenor General I
WS .02	Managing Obesity as a Chronic Condition: The Role of Behaviour Change Counselling	08:30 – 12:00	Governor General II
WS .03	Patients are a Virtue: Adding Lived Experience to your Research Team	13:00 – 16:30	Governor General II
WS .04	What Every Clinician Needs to Know Post-Bariatric Surgery	08:30 – 16:30	Governor General III
WS .15	Workshop Person-centered obesity care: Practical guidelines and strategies for clinicians, educators, and policy makers	15:00 – 16:30	Les Saisons
WEDNESDAY, APRIL 24, 2019			
WS .05	Obesity and Pregnancy	14:00 – 16:00	Quebec
WS .06	Mindfulness and Acceptance Based Behavioural Interventions for Weight Loss and Weight Maintenance	14:00 – 17:30	Nova Scotia/Newfoundland
WS .07	CIHR Hosted Symposium — New Horizons in Bariatric Care	14:00 – 15:00	Governor General Ballroom
THURSDAY, APRIL 25, 2019			
WS .09	Utilizing National Guidelines for Quality Care of Hospitalized Patients with Bariatric Care Needs	14:00 – 16:00	Quebec
WS .10	Understanding Weight Regain and how to Manage It	14:00 – 16:00	Governor General Ballroom
WS .11	OC-SNP Networking Workshop	16:30 – 17:30	Governor General Ballroom
FRIDAY, APRIL 26, 2019			
WS .12	Exploration of Digital Health and Group-Based Programming to Support Families to Adopt Healthy Behaviours	14:00 – 16:00	Quebec
WS .13	How to Assess the Multiple Improvements Promoted by an Interdisciplinary Treatment Approach. The NEMO's Criteria of Success	14:00 – 16:00	Nova Scotia/Newfoundland
WS .14	Clinical Cases in Obesity Pharmacotherapy	14:00 – 16:00	Governor General Ballroom
WS .16	How Can We Advance Research on Obesity Prevention During Infancy?	11:30 – 13:00	Nova Scotia/Newfoundland

WORKSHOPS DETAILS

WS01 Advancing Obesity Prevention and Management Through Education and Collaboration: Efforts of an International Coalition

Workshop Presenters: Denise Campbell-Scherer, Melanie Jay, Shwetha Iyer, Roshan Abraham, Doug Klein, Holly Lofton, Erin Cameron, Céline Koryzma, Marie-France Langois, Amy McPherson, Pornpoj Pramyothin, Dayna Lee-Baggley, Michael Vallis, Judy Shiau, Angie Hong, Sonja Wicklum, Amy McPherson, Stasia Hadjiyannakis

Workshop Description: Globally, healthcare providers play a vital role in the prevention and management of obesity, but are inadequately educated on obesity management. Given the high prevalence of obesity and its role in chronic diseases, innovative educational programs are needed throughout the healthcare system to improve knowledge and competencies in preventing and treating patients with obesity. Our international coalition to improve training in obesity prevention and management was formed in an effort to change educational standards and help educators navigate the challenges and roadblocks involved with developing and implementing an obesity curriculum. During this full-day interactive workshop you will be provided with the opportunity to learn about effective tools and resources that are available to healthcare professionals, as well as strategies for delivering educational content; implementing educational programs; overcoming barriers to implementation; and developing and evaluating an obesity curriculum. Learners will also be given a valuable opportunity to make connections with healthcare professionals with similar interests and hear from coalition members about exciting initiatives that have been implemented in different parts of the world.

WS02 Managing Obesity as a Chronic Condition: The Role of Behaviour Change Counselling

Workshop Presenter: Michael Vallis

Dalhousie University, Halifax, NS

Workshop Description: Current approaches to obesity management in Canada focus on the delivery of a pre-developed program. While there is evidence to support these types of programs, they challenge the dominant model of chronic disease management in two ways. First, by offering a pre-developed, structured program personalizing the intervention to the individual is restricted. This results in a tendency for patients to have to fit the program rather than the program fitting the patient. Second, structured programs require adherence to an external protocol more so than the identification of internal drivers of a person's behaviour. Internal drivers connect to a person's values and offer the potential for sustained change.

This workshop will offer participants the opportunity to develop skill at behaviour change counselling focused not on the program but on the patient and the evidence-based mediators of sustained behaviour change. These mediators are adherence, self-efficacy and intrinsic motivation. Participants will become familiar with how to assess and promote these experiences regardless of the nature of the specific obesity management program offered.

Behaviour change counselling to promote sustained changes in health behaviours involves four specific skills. Participants will have the opportunity to practice skills at: establishing change-based relationships, assessing and promoting readiness to change, implementing effective behaviour modification strategies, and addressing psychosocial issues associated with change. These skills are applicable to obesity interventions based on lifestyle, medication and or surgery.

WS03 Patients are a Virtue: Adding Lived Experience to your Research Team

Workshop Presenters: Laurie K. Twells[1, 2], Jennifer Donnan[2], Alicia K. Taylor[1], Chelsey McPhee[3]

1. Faculty of Medicine, Memorial University of Newfoundland, St. John's, NL, 2. School of Pharmacy, Memorial University of Newfoundland, St. John's, NL, 3. Newfoundland and Labrador's SUpport for People and Patient-Oriented Research and Trials (SUPPORT), St. John's, NL

Workshop Description: The Strategy for Patient-Oriented Research (SPOR) is an initiative led by the Canadian Institutes for Health Research (CIHR). It focuses on improving outcomes for users of the health care system and aims to create a research culture oriented around achieving real-world impacts that are meaningful for patients and families. Engaging "patients as partners" on research teams ensures research is conducted "with patients" and not "for or about them".

The purpose of this workshop is to introduce participants to the Strategy for Patient-Oriented Research in Canada, in the context of obesity research. An overview of the CIHR SPOR strategy will be presented and through the use of examples from obesity research, patient-identified research priorities in [PROVINCE], and several interactive activities, we will explore ways that patients can meaningfully contribute to obesity research. Some immediate and measurable impacts of having "patients as partners" on our current research team have included: identification of meaningful research questions, increased validity of data collection tools, improved participant recruitment and development of innovative knowledge translation strategies.

Learning Objectives: By the end of this workshop, participants will have a better understanding of:

- the value in conducting patient-oriented research;
- the changing landscape of research in Canada as it relates to Patient-Oriented Research;
- how to develop a patient engagement plan;
- the process of engaging "patients as partners" rather than as study participants;
- the many resources available to conduct Patient-Oriented Research and
- the strengths and challenges of conducting Patient-Oriented Research.

WS04 What Every Clinician Needs to Know Post-Bariatric Surgery

Workshop Presenters: Jennifer L. Brown[1], Sanjeev Sockalingam[2], Jordan Heuser[2], Daniella Sandre[1], Mary Forhan[3], Stephanie E. Cassin[4], Patti Kastanias[6], Raed Hawa[5], Annie Basterfield[6], Susan Wnuk[5]

1. The Ottawa Hospital Bariatric Centre of Excellence, Ottawa, ON, 2. Toronto Western Hospital Bariatric Surgery Centre of Excellence, University Health Network, University of Toronto, Toronto, ON, 3. Faculty of Rehabilitation Medicine, University of Alberta, Edmonton, AB, 4. Department of Psychology, Ryerson University, Toronto, ON, 5. University Health Network - Toronto Western Hospital, Toronto, ON, 6. University Health Network, Toronto, ON

Workshop Description: Bariatric surgery is recognized as an effective and durable treatment for obesity; however, bariatric and

WORKSHOPS DETAILS

primary care teams require awareness and skills to manage the myriad of pre and post-operative concerns. This full-day workshop will provide participants with an integrated interprofessional approach to supporting patients' before and after bariatric surgery.

Based on emerging evidence, pre-surgery and post-surgery care has continued to evolve and focus on integrated medical and psychosocial approaches to better support patients long-term after bariatric surgery. New literature has provided insight into risk stratification, peri-operative management and long-term supportive strategies. Bariatric clinicians working in bariatric surgery programs or following post-operative patients will benefit from the following workshop which is divided into two key section. Part 1 will focus on interactive, case based discussions in addition to brief updates on pre-surgery assessment and preparation for bariatric surgery. The case discussions will allow participants to consult with an interprofessional team of bariatric surgery experts. Part 2 of the workshop will focus on an often-neglected area of bariatric surgery, namely early and late post-surgery complications, monitoring and interventions to mitigate significant weight regain post-bariatric surgery. Attendees who are currently working in bariatric surgery centres or primary care providers interested in improving their knowledge about bariatric surgical care are encouraged to attend. Resources, protocols and care pathways will be shared.

WS05 Obesity and Pregnancy

Workshop Presenters: Michelle F. Mottola[1], Kristi Adamo[2], Roberta Bgeginski[1], Taniya S. Nagpal[1]

1. The University of Western Ontario, London, ON, 2. University of Ottawa, Ottawa, ON

Workshop Description: Entering pregnancy with obesity may significantly increase the risk for a number of complications that impact both the mother and growing fetus. The Developmental Origins of Health and Disease (DOHaD) posits that the fetal environment may program the fetus for an increased risk of future chronic diseases, including obesity. Pregnant women with obesity, especially those who gain excessive weight, are at increased risk for delivering an infant with macrosomia (birthweight >4000g). Furthermore the baby is at risk for glucose intolerance and greater fat storage, increasing the risk of childhood obesity and other diseases such as Type 2 Diabetes, and cardiovascular disease. Moreover, excessive gestational weight gain (EGWG) in women with obesity further increases the risk for fetal complications, complications at delivery, postpartum weight retention, and gestational diabetes. Since EGWG is considered a modifiable risk factor, supporting women to engage in a healthy active lifestyle during pregnancy is important. The goal of this panel discussion will be to highlight features of the DOHaD concept and how they relate to maternal and childhood obesity. We will also specifically discuss the influence of the environment on the placenta and then subsequently on baby. We will then present information on how to prevent and/or minimize EGWG through a healthy lifestyle approach and how pregnancy provides an opportunity to educate women on effective behaviour change strategies which may potentially contribute to obesity treatment and management during and after pregnancy.

WS06 Mindfulness and Acceptance Based Behavioural Interventions for Weight Loss and Weight Maintenance

Workshop Presenters: Dayna Lee-Baggley[1], Susan Wnuk[2]

1. Nova Scotia Health Authority/ Dalhousie University, Halifax, NS, 2. University Health Network - Toronto Western Hospital / University of Toronto, Toronto, ON

Workshop Description: Long-term weight loss maintenance is the goal for bariatric patients and clinicians as it is associated with improvements in health and quality of life. Unsatisfactory weight loss and weight gain following weight loss interventions can be distressing to patients and seem particularly difficult to treat when it is associated with problematic psychological and behavioural factors like emotional eating, binge eating and loss of control over eating. The purpose of this workshop is to present clinical tools from mindfulness and acceptance based behaviour interventions to address these problems. These interventions include Acceptance and Commitment Therapy (ACT) Mindfulness-Based Eating Awareness Training (MB-EAT) and Dialectical Behaviour Therapy (DBT), all of which have been found to be effective with weight loss and eating. We will summarize the common theoretical principles shared by these interventions and briefly review treatment outcome studies. The focus of the workshop will be on providing attendees with clinical tools. Specific interventions from each modality will be presented. These include defusion and acceptance from ACT; mindful eating practices and mindfulness of bodily signals of hunger and fullness from MB-EAT; and the integration of acceptance with change, and skills training, with an emphasis on distress tolerance and emotion regulation skills, from DBT. Facilitator demonstrations, role-play exercises, and question and answer periods, will be used to translate the concepts presented into applied practice. In this collaboration between institutions from Ontario and Nova Scotia, the presenters bring their specialized trained in these modalities and extensive experience using these techniques with individuals living with obesity.

WS07 CIHR Hosted Symposium

Workshop Presenters: Andre Tchernoff[1], Geoff Ball[2] Norm Rosenblum[3]

1. Quebec Heart and Lung Institute/ Laval University School of Nutrition, Quebec City, QC, 2. University of Alberta, Edmonton, AB, 3. CIHR Institute of Nutrition, Metabolism and Diabetes, Toronto, ON

Workshop Description:

In 2010, Obesity Canada (then the Canadian Obesity Network) partnered with CIHR on a workshop designed to identify research gaps in bariatric care. The research agenda defined in a subsequent report was used to guide a new slate of CIHR team grants, co-funded by Obesity Canada, CIHR and other partners.

This workshop will provide insights into two of the three team grant projects. Project leaders will discuss their progress and findings to date for 20 minutes each, followed by 20 minutes of discussion and Q&A.

Dr. Geoff Ball: Teaming Up: The Team to Address Bariatric Care in Canadian Children (Team ABC3)

Dr. Andre Tchernof: Determinants of Metabolic Recovery following Bariatric Surgery in Individuals with Type 2 Diabetes Mellitus: Status Report on the REMISSION Trial

WORKSHOPS DETAILS

WS09 Utilizing National Guidelines for Quality Care of Hospitalized Patients with Bariatric Care Needs

Workshop Presenters: Mary Forhan[1], Maureen Fowler[2], Sarah Bingler[3], Gillian Harvey[1]

1. University of Alberta, Edmonton, AB, 2. Alberta Health Services, Medicine Hat, AB, 3. Michael Garron Hospital, Toronto, ON

Workshop Description: Bariatric care needs can arise when a patient's body weight is 113kg or more and/or when a patients body shape warrants support not offered in typically designed hospital furniture or clinical equipment. Patients with bariatric care needs are at risk in hospital settings for injury and complications due to inadequate facility design, equipment or staff competencies in their care. Health care practitioners are at risk for injury if there is inadequate appropriate equipment as well as the knowledge on how to use the equipment. Unmet bariatric care needs results in delays in care, increased length of stay in hospital and contribute to unnecessary health care costs. A group of researchers, practitioners, designers and persons living with obesity have identified key interventions to improve the health care system's capacity to provide quality care for hospitalized patients who also have bariatric care needs. A national guideline, tested in a moderate size, full-service hospital, has been developed for the purpose of providing staff and administrators with key resources and recommendations to assess and plan safe and sensitive care for patients with bariatric care needs. This workshop will outline key standards and recommendations required to provide quality care for hospitalized patients who have bariatric care needs. The national bariatric care guideline for hospitals will be shared which includes strategies and tools on how to address issues including: identification of bariatric care needs; weight bias; access to bariatric equipment; safe patient handling; transportation and communication between services/programs.

WS10 Understanding Weight Regain and How to Manage It

Workshop Presenters: Aurelie Baillot[1], Eric Doucet[2], Jennifer Brown[3], Judy Shiau[5], David Thivel[4], Valerie Taylor[6]

1. Université du Quebec en Outaouais, Gatineau, QC, 2. Ottawa university, Ottawa, ON, 3. Ottawa Hospital Bariatric Centre of Excellence, Ottawa, ON, 4. Clermont Auvergne University, Clermont Ferrand, France, 5. LEAF Weight Management Clinic, Ottawa, ON, 6. Cumming School of Medicine University of Calgary, Calgary, AB

Workshop Description: Weight regain is a major challenge after weight loss for both patients and clinicians. In this 120 min workshop six lecturers will address this problematic, covering multiple aspects of weight regain. The general workshop aims are to disseminate results of research and provide tips to what providers can do to support patients. This will be relevant to health professionals, patients, decision-makers and researchers interested in the long-term management of obesity.

Learning Objectives: at the end of the session, the participants will have a better understanding about:

- weight regain vs. natural course of weight gain
- impacts of weight regain and weight cycling
- physiological and psychological mechanisms involved in the weight regain
- why appetite and hunger levels change after weight loss
- the relation between exercise and energy intake/appetite
- what providers can do to support patients.

WS11 Networking Workshop for Students: Call for Professional Members to Participate

Workshop Presenters: Laura Vergeer

Department of Nutritional Sciences, Faculty of Medicine, University of Toronto, Toronto, ON

Workshop Description: The Obesity Canada Students and New Professionals (OC-SNP) National Executive will be hosting a networking workshop at the 6th Canadian Obesity Summit with the aim of introducing students and new professionals to more senior members of Obesity Canada.

The workshop will be led by members of the OC-SNP National Executive, some of whom will speak about their own experiences as student leaders. There will also be organized activities, including a "speed-dating" session, where professional members and students will break off into pairs and have approximately 5 minutes to converse before chatting with someone new. Students will have an opportunity to grow their professional networks, and more senior members will be able to meet up-and-coming Obesity Canada members working in an obesity-related field.

WS12 Exploration of Digital Health and Group-based Programming to Support Families to Adopt Healthy Behaviours

Workshop Presenters: Janice Macdonald, K. Strange, *Childhood Obesity Foundation, Vancouver, BC*

Workshop Description: Almost one in three children and youth (ages 5–17 years) in Canada have excess weight or obesity, an estimated 1.6 million Canadians. If left unchecked, they are more likely to become adults with excess weight or obesity and are at an increased risk for Type 2 diabetes, hypertension, poor emotional health and diminished social well-being. Childhood obesity has been attributed to lifestyle behaviours related to eating, physical activity, screen time and sleep.

One province's Healthy Weights Continuum aims to offer a coordinated and comprehensive approach of programs and services to support families to adopt healthy behaviours. Two key components of the Continuum are prevention and early intervention for families with children with excess weight or obesity. Input from stakeholders and families helped shape a family-based intervention led by community-based practitioners and a mobile application for youth and their parents.

The family-based program supports families with children 8–12 years and a BMI for age above the 85th percentile through interactive group sessions and an online family portal. The program is designed to build skills to: 1) support family health and quality of life; 2) eat healthy; 3) be more active; and 4) promote positive mental and social health.

The mobile application is tailored for pre-teens, teens and parents. A live demonstration will explore how the apps integrate personalization, autonomy, gamification and the principles of behaviour change theory including the development of self-regulatory skills.

Evaluation results along with lessons learned to date from both interventions will be explored.

WORKSHOPS DETAILS

WS13 How to assess the Multiple Improvements Promoted by an Interdisciplinary Treatment Approach. The NEMO's Criteria of Success

Workshop Presenters: Nelson Nardo Junior, Greice Westphal

State University of Maringa, Maringa, PR, Brazil

Workshop Description: People living with obesity have their lives impacted by several reasons. Consequently when they seek for a program to "treat" obesity they may be more concerned about different things. There is no consensus about what should be the goal of the program for different public and much study is needed to present alternatives in that way. We have applied an approach to assess multiple health related parameters and based on that we have a proposal indicators of success. Basically we consider some of the several improvements observed when people with obesity or overweight adopt a more active and healthy way of living based on the orientation received during a program offered by our group twice a yaer since 2005. Such program include nutritionists, kinesiologists and psychologists as the base of the team group and have their actions oriented to promote consistent changes in the conseption of the lifestyle and its influence on the health status. Based on that experience we want to show and share the indicators and cut off proposed to help professionals working in that field to assess and present to their patients how the changes are achived and the different patterns of responses. The details of the work used to guide this workshop can be found in our paper entitled: Building a response criterion for pediatric multidisciplinary obesity intervention success based on combined benefits. Eur J Pediatr, 2018 which is going to be up to date with adults data to the workshop.

WS14 Clinical Cases in Obesity Pharmacotherapy

Workshop Presenters: Sarah Chapelsky[2, 3, 1], David Harris[4, 5], Marie-Philippe Morin[6, 7, 8], Thomas Ransom[9]

1. FEMME HOMME Medical, Edmonton, AB, 2. University of Alberta, Edmonton, AB, 3. Edmonton Adult Bariatric Specialty Clinic, Edmonton, AB, 4. LEAF Medical Weight Management Clinic, Ottawa, ON, 5. University of British Columbia, Vancouver, BC, 6. Quebec Heart and Lung Institute, Quebec, QC, 7. Quebec Heart and Lung Institute Research Centre, Quebec, QC, 8. Laval University, Quebec, QC, 9. Dalhousie University, Halifax, NS

Workshop Description: Recently, two new options for the pharmacologic management of obesity have entered the Canadian market: liraglutide in 2015, and naltrexone-bupropion in 2018. While these new medications have the potential to fundamentally alter care for patients living with obesity, there are numerous barriers to incorporating them into clinical practice. Many health care practitioners (HCPs) lack knowledge about the pathophysiology, evaluation, and treatment of obesity. For many HCPs, safety concerns linger due to experiences with previously available anti-obesity medications (AOMs).

To address the practical challenges of prescribing AOMs, we have assembled a panel of physician experts in obesity medicine from diverse practice settings and regions. Using a case-based approach, we will discuss how to apply the evidence for AOMs to individual patients, and debate our approach to cases where evidence is lacking. To promote patient-centered care, we will review current knowledge about AOM safety and efficacy, and demonstrate how to synthesize this information to evaluate the risk-benefit balance of AOM use in a specific patient.

Based on our clinical experiences, we will discuss how to incorporate AOMs with other obesity treatments. We will share practical tips to optimize outcomes with AOMs in real-world use, including how to support multidisciplinary team members who contribute to the care of patients utilizing AOMs, such as dietitians and psychologists. The selected clinical cases and panel commentary will aim to engage new prescribers, experienced prescribers, and non-prescribing professionals that care for patients living with obesity.

WS15 Person-centered Obesity Care: Practical Guidelines and Strategies for Clinicians, Educators, and Policy Makers

Workshop Presenters: Erin Cameron[1], Mary Forhan[2], Ian Patton[3], Amy McPherson[4], Ximena Ramos Salas[5], Angela S. Alberga[6], Shelly Russell-Mayhew[7], Sara Kirk[8], Arya M. Sharma[2]

1. Northern Ontario School of Medicine, Thunder Bay, ON, 2. University of Alberta, Edmonton, AB, 3. Obesity Canada, Toronto, ON, 4. Bloorview Research Institute/ University of Toronto, Toronto, ON, 5. Obesity Canada, Edmonton, AB, 6. Concordia University, Montreal, QC, 7. University of Calgary, Calgary, AB, 8. Dalhousie University, Halifax, NS

Workshop Description: The designation of obesity as a chronic disease has the potential to reduce health inequalities by increasing access to evidence-based treatment for individuals who live with obesity. Such a designation provides a rich opportunity for clinicians, educators, and policy makers to engage in practices and policies that support person-centered obesity care.

Learning Objectives: The objectives of this workshop are to:

1. Define person-centered obesity care.
   Dr. Erin Cameron, Assistant Professor, Northern Ontario School of Medicine
2. Share knowledge and best practices on person-centered obesity care.
   Dr. Mary Forhan, Associate Professor, University of Alberta
3. Share lived experiences and perspectives on how to improve person-centered obesity care to reduce weight bias.
   Dr. Ian Patton, Public Engagement Committee Member, Obesity Canada
4. *Offer practical strategies and resources on patient-centered obesity care.*
   Dr. Amy McPherson, Associate Professor, Bloorview Research Institute & Dr. Ximena Ramos-Salas, Manager, Obesity Canada

WS16 How Can We Advance Research on Obesity Prevention During Infancy?

Workshop Presenter: Ilona Hale

University of British Columbia, Vancouver, BC

Workshop Description: The first year of life may be one of the most promising windows of opportunity for preventing obesity and establishing a healthy weight for life. Join others interested in this topic during an interactive session where you can;

1. Learn more about the evidence related to this critical period of development
2. Discuss your own experience / research in this field
3. Identify priority areas for further research
4. Meet other potential research collaborators

LUNCH SYMPOSIUM

WEDNESDAY, APRIL 24, 2019

TAKE ACTION: Finding Common Ground to Improve Obesity Management

11:30 am – 1:30 pm

Chair: Dr. David Lau, University of Calgary
Speakers: Dr. Shahebina Walji, Calgary Weight Management Centre (CWMC)

Despite a consensus among Canadian and global health organizations that obesity is a chronic, progressive medical disease, there remain discrepancies between patient and healthcare provider perspectives on obesity. From willingness and responsibility to start the conversation, to understanding its clinical management, these discrepancies create barriers to effective treatment of obesity.

This program aims to explore the different attitudes and beliefs of patients and healthcare providers on obesity, while highlighting the recommended approaches to its management, including pharmacotherapy, as well as practical strategies to overcome key barriers.

Learning Objectives:

- Establish an understanding of the complex biological, psychological and environmental factors that lead to obesity as a chronic disease.
- Integrate practical solutions to overcome biases and barriers in obesity management in primary care.
- Distinguish between approaches to obesity management and utilize these approaches in clinical practice, including available pharmacotherapy options.

(This program was supported in part by an educational grant from Novo Nordisk)

THURSDAY, APRIL 25, 2019

NEUROBIOLOGY OF APPETITE REGULATION. Leveraging pharmacotherapy and behaviourial therapy in weight management.

11:30 am – 1:00 pm

Chair: Dr. David Lau, BSc, PhD, MD, FRPC(C)
Professor, Departments of Medicine and Biochemistry & Molecular Biology, University of Calgary
Adjunct Professor, Faculty of Kinesiology, University of Calgary

The Patient Voice
Sandra Elia, Certified Food Addiction Coach

Speakers: Dr. Roger McIntyre, MD, FRCPC
Professor, Psychiatry and Pharmacology, University of Toronto
Head, Mood Disorders Psychopharmacology Unit, University Health Network, Toronto

Dr. Dayna Lee-Baggley, Msc, Ph.D.
Assistant Professor, Department of Family Medicine, Dalhousie
Adjunct Professor, Department of Industrial and Organizational Psychology, Saint Mary's University

Dr. Sean Wharton, MD, FRCPC, PharmD
Medical Director of the Wharton Medical ClinicInternal Medicine, Toronto East General Hospital and Hamilton Health Sciences

Despite a consensus among Canadian and global health organizations that obesity is a chronic, progressive medical disease, there remain discrepancies between patient and healthcare provider perspectives on obesity. From willingness and responsibility to start the conversation, to understanding its clinical management, these discrepancies create barriers to effective treatment of obesity.

This program aims to explore the different attitudes and beliefs of patients and healthcare providers on obesity, while highlighting the recommended approaches to its management, including pharmacotherapy, as well as practical strategies to overcome key barriers.

(This program was supported in part by an educational grant from Bausch Health)

Learning Objectives:

- Establish an understanding of the complex biological, psychological and environmental factors that lead to obesity as a chronic disease.
- Integrate practical solutions to overcome biases and barriers in obesity management in primary care.
- Distinguish between approaches to obesity management and utilize these approaches in clinical practice, including available pharmacotherapy options.

MINI REVIEW SESSION DETAILS

WEDNESDAY, APRIL 24

Mini Review 01: At Risk Populations

08:30 – 09:30 (Session Co-Chairs: Jennifer Kuk, Kelly Isfan)

Confederation Ballroom

Western Lifestyle a Health Risk for Young Immigrant and Refugees

Hassanali Vatanparast

Hassan is Professor of Nutritional Epidemiology with a joint appointment in the College of Pharmacy and Nutrition and the School of Public Health. He investigates the impact of nutrition and other lifestyle factors on chronic conditions in vulnerable populations. Along with his research, he is chairing Saskatchewan Public Health Nutrition Research Network and is an active member of several scientific organizations at national and international levels.

Dr. Vatanparast and his team are involved in several projects evaluating the nutritional health of Canadians in association with chronic diseases using complex health survey data and through longitudinal studies. He is also leading various research projects and health promotion initiatives in risk populations (refugees and indigenous people, particularly children and women) at local, national and international levels. Dr. Vatanparast is heavily involved in immigration health as a researcher, cultural competency consultant, advocate, and volunteer in community-based settlement agencies. Through Healthy Immigrant initiative, Hassan and his team conducted the first comprehensive study evaluating the nutritional health of newcomer children, access to care in newcomer families and cultural competency skills among healthcare professionals in Saskatchewan. He is also leading a multi-country study evaluating food security status of refugees. Collaborative research and teamwork have been the keys to success for Dr. Vatanparast and his team.

Objectives:

1. To obtain an overview of nutrition and health status of new Canadians.
2. To recognize the differences in nutrition and health status between immigrant & refugees.
3. To compare health status of new Canadians with their Canadian counterparts.

The Obesity Crisis in Canadian Long-haul Truck Drivers: a Neglected Population

Alexander M. Crizzle

Alexander Crizzle is a Gerontologist and Assistant Professor in the School of Public Health at the University of Saskatchewan. His research interests are within the domain of transportation (including identifying at-risk drivers), community mobility and program evaluation. He began his work on truck drivers in 2014 examining factors related to their health and wellness, and how policies and the environment shape truck drivers' health. His work has been supported by Transport Canada, the Alberta Ministry of Labour and WorkSafe BC. He also receives support from CIHR and the Saskatchewan Health Research Foundation.

Learning Objectives:

1. To summarize issues that impact the health and wellness of long-haul truck drivers in Canada
2. To identify the interplay between the environment, work conditions, and chronic disease

Land-Based Foods: Are They a Solution for the Obesity Crisis in Remote First Nations Communities of Ontario

Francois Haman

Dr. Haman's research deals with all aspects of human energetics. It focuses on how humans orchestrate metabolic fuel selection to improve chances of survival and increase performance in adverse environmental conditions such as changing climates and important modifications of dietary behavior. From mechanisms to applications, his work aims to establish principles that dictate fuel use and provide strategies to improve health/performance or chances of survival using alterations in dietary behaviors or physical training. Current work integrates a number of state-of-the-art metabolic methodologies to quantify human responses to climate change (heat/cold) and to provide dietary strategies to reduce the prevalence of obesity and obesity related diseases in First Nations communities of Northwestern Ontario.

Learning Objectives:

To better understand the food access challenges faced by remote First Nations communities of north-western Ontario.

MINI REVIEW SESSION DETAILS

Mini Review 02: Adult Clinical I

08:30 – 09:30 (Session Co-Chairs: Geeta Achyuthan, Marie-France Langlois)

Confederation Ballroom

Pharmacotherapy Recommendations: 2019 Canadian Obesity Clinical Practice Guidelines

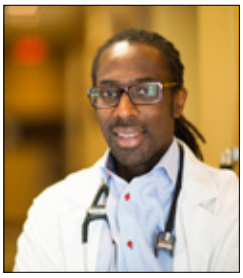
Sue D. Pedersen

Sue Pedersen is a certified American Board of Obesity Medicine (ABOM) Diplomate and a Specialist in Endocrinology & Metabolism in Calgary. She is the lead author of the Pharmacotherapy Chapter of the 2019 Canadian Obesity Clinical Practice Guidelines. She is also a member of the Expert Committee for the 2018 Diabetes Canada guidelines, as a coauthor on the weight management chapter of these guidelines.

Dr Pedersen completed her training as an endocrinologist at the University of Calgary, Canada, in 2005, and has since had clinical practices in both Calgary and at the Royal University Hospital at the University of Saskatchewan. Dr Pedersen currently has a busy endocrinology practice at the C-ENDO Diabetes & Endocrinology Clinic in Calgary, with a focus on obesity and type 2 diabetes.

Prior to joining C-ENDO, Dr Pedersen took a year-long research sabbatical in 2009 at the Department of Human Nutrition at the University of Copenhagen, Denmark, where she carried out research in the areas of obesity and gastric bypass surgery. For many years in Canada, she has served as Principal and/or National Investigator in several research studies, including studies of pharmacotherapy for obesity and for diabetes.

She maintains a public information website about weight management and diabetes at: www.drsue.ca.



Pharmacotherapy Real Life Experiences

Sean Wharton

Dr. Wharton has his doctorate in Pharmacy and Medicine. He is the medical director of the Wharton Medical Clinic, a community based internal medicine weight management and diabetes clinic. He is an adjunct professor at McMaster University in Hamilton and York University in Toronto. He also works as an internist at Toronto East General Hospital, and the Hamilton Health Sciences. Dr. Wharton is a researcher, and is qualified as a diplomat of the American Board of Obesity Medicine.

Dr. Wharton's research focuses on bariatric medicine and type 2 diabetes. He is the lead author of the weight management section of the 2013 and 2018 Canadian Diabetes Guidelines, and co-chair of the 2018 Canadian Obesity Guidelines.

Learning Objectives:

1. Understand the real world evidence for pharmacotherapy for weight management.

Weight management in patients with metabolic complications of obesity

Priya Manjoo

Dr. Manjoo is an Endocrinologist in Victoria BC and co-director of the Victoria Cardiometabolic Collaborative clinic as well as the Victoria Lipid Clinic.

Dr. Manjoo is board certified in Obesity medicine and is a certified Hypertension Specialist. The focus of her clinical practice is the management of patients with obesity related metabolic disease.

She did her Masters of Clinical Epidemiology at Mcgill University and had been involved in different clinical practice guidelines including the 2019 Canadian Obesity Guidelines. She is a member of the CON Science committee and serves I the Nutrition Committee of the doctors of BC.

She is on faculty at the Department of Medicine at the University of British Columbia. She has spoken at professional symposia on diabetes, dyslipidemia and obesity and has also volunteered her time to speak at forums in the community aimed at promoting education around concepts of diabetes, dyslipidemia and obesity management.

MINI REVIEW SESSION DETAILS

Mini Review 03: Health Canada/Heart & Stroke: Healthy Eating Strategy

10:00 – 11:00 (Session Co-Chairs: Gordon Zello, Hasan Hutchinson)

Confederation Ballroom

Canada's New Food Guide

Alfred Aziz

Dr. Alfred Aziz holds a PhD in Nutritional Sciences from the University of Toronto. He joined Health Canada in 2006, first as postdoctoral fellow and then as a research scientist. After completing a few assignments as part of Health Canada's Science Management Development Program, Alfred was appointed the Chief of Nutrition Regulations and Standards Division in 2014. Alfred led the updates to the Nutrition Labelling regulations and a multi-disciplinary team responsible for managing and integrating initiatives under the Healthy Eating Strategy, while directly being responsible for leading the work on front of package labelling, sodium reduction and trans-fat elimination. Earlier this year, Alfred assumed the role of the Director General of the Office of Nutrition Policy and Promotion, which is the federal authority on dietary guidance and healthy eating policies.

Learning Objectives:

1. This session will be an opportunity for participants to learn about the development (evidence base, engagement) of the revised Canada's Food Guide and to understand what is new in the revised Food Guide.

Food Labelling

William Yan

Dr. William Yan obtained his Master degree in Microbiology and Ph.D. degree in Medical Microbiology and Infectious Diseases from the University of Alberta. He completed his post-doctoral training at Tufts University Medical School in Boston, MA before beginning his career in Health Canada as a Research Scientist in 1995. Between 1999 and 2009, he was Head of the Office of Biotechnology in the Food Directorate, Chief of the Evaluation Division in the Bureau of Microbial Hazards, and Director of the Health Effects Division of the Pest Management Regulatory Agency. In 2010, Dr. Yan was appointed as Director of the Bureau of Nutritional Sciences in the Food Directorate. Since then, he has provided leadership in the Bureau's work on developing nutritional standards and regulations as well as pre-market assessment of novel foods, novel fibres, health claims and infant formulas. He is currently leading the work on Supplemented Foods as well as projects under Health Canada's Healthy Eating Strategy such as sodium reduction and nutrition labelling initiatives.

Learning Objectives:

To better appreciate how Health Canada's Healthy Eating Strategy can help support Canadians concerning the prevention of chronic diseases and reduction of obesity.

Canada's Healthy Eating Strategy: A Heart & Stroke perspective

Manuel Arango

Manuel Arango is the Director of Policy, Advocacy & Engagement, for Heart & Stroke. Located in Ottawa, he oversees the Foundation's policy, advocacy and public/patient engagement efforts. Manuel also acts as a media spokesperson for the Foundation on a variety of policy issues. Manuel has chaired various coalitions and a board of directors. He has a Masters in experimental psychology (Carleton University) and a Masters in health administration (University of Ottawa). Manuel's policy/advocacy interests focus on cost-effective population-wide interventions that can make it easy for Canadians to be healthy as possible.

He was formerly a legislative assistant on Parliament Hill. Since being at the Foundation he has served as Health Policy Analyst; Manager, Government Relations, and; Assistant Director Health Policy. Manuel is passionate about his wife and two hockey focused children, as well as about ensuring that governments create the healthiest environments possible, so that the healthy choice can always be the easy choice for all Canadians.

Learning Objectives:

1. Understand the role that NGOs such as Heart & Stroke played in the Federal Healthy Eating Strategy.
2. Understand the impact that the Federal Healthy Eating Strategy will have on the nutritional health of people living in Canada.

MINI REVIEW SESSION DETAILS

Mini Review 04: Weight Bias

10:00 – 11:00 (Session Co-Chairs: Theodore Kyle, Ximena Ramos Salas)

Governor General Ballroom

Weight Bias Internalization: How Does it Affect Healthy Behaviors

Angela S. Alberga

Dr. Angela Alberga completed her BSc (Major Exercise Science, Minor Psychology) at Concordia University and her MSc and PhD in exercise physiology in the School of Human Kinetics at the University of Ottawa. Her research has focused on improving the cardiometabolic and mental health of youth and adults living with obesity. Dr. Alberga was then awarded a Banting CIHR Postdoctoral Fellowship at the University of Calgary supporting her research on weight stigma reduction in education, healthcare and public policy. Dr. Alberga is now an Assistant Professor at her alma mater in the Department of Health, Kinesiology & Applied Physiology at Concordia University. Her research program focuses on better understanding how (i) societal, and (ii) school and other institutional factors, influence weight-related issues including obesity, eating disorders, physical inactivity and weight stigma.

The Student Body: Interventions to Reduce Weight Bias Among Health Care Provider Trainees

Sara Kirk

Dr. Sara Kirk is a Professor of Health Promotion at Dalhousie University and Scientific Director of the Healthy Populations Institute. Her program of research explores the creation of supportive environments for chronic disease prevention, through healthy eating and physical activity. She uses a 'socio-ecological' approach that considers how individual behaviour is influenced by other broader factors, such as income, education and societal norms. She has conducted research to better understand how weight bias and stigma impact health care provider behaviour, and is a member of a multi-disciplinary partnership of weight bias and obesity stigma researchers from across disciplines and research areas. This collaborative has the goal ion going beyond simply raising awareness of the existence of weight bias and stigma in Canada, towards promoting behaviour, practice, and policy change among key stakeholders.

Learning Objectives:

1. To review the evidence for the effectiveness of weight bias reduction interventions.
2. To identify the core components of effective weight bias reduction interventions.
3. To suggest ways forward to reduce weight bias among health care provider trainees.

Applying HAES Principles to Advance Healthy Public Policy

Maria Ricupero

Maria Ricupero is a Registered Dietitian and Certified Diabetes Educator, who holds a Master of Health Science degree in Nutrition Communication from Ryerson University where she taught as a sessional lecturer. Other employment experience includes working at the University Health Network in the Cardiac Prevention & Rehabilitation program and more recently as a Practice Leader for the Endocrine and Mental Health programs.

Maria makes a personal commitment to raise awareness around weight bias by presenting locally and internationally at professional conferences and delivering workshops to students and colleagues. Maria readily shares her expertise and disseminates messaging around weight inclusivity with the media whenever the opportunity arises.

Learning Objectives:

- Recognize the problems with current health messaging.
- Identify the principles that define Health At Every Size® (HAES).
- Demonstrate how implementing HAES principles can advance healthy public policy.

MINI REVIEW SESSION DETAILS

THURSDAY, APRIL 25

Mini Review 05: Physical Activity

08:30 – 09:30 (Session Co-Chairs: Denis Prud'homme, Tarun Katapally)

Confederation Ballroom

The Whole Day Matters: A New Paradigm for Movement Guidelines

Mark Tremblay

Professor Mark Tremblay has a Bachelor of Commerce degree in Sports Administration and a Bachelor of Physical and Health Education degree from Laurentian University. His graduate training was from the University of Toronto where he obtained his M.Sc. and Ph.D. from the Department of Community Health with a specialty in Exercise Science. Dr. Tremblay is the Director of Healthy Active Living and Obesity Research (HALO) at the Children's Hospital of Eastern Ontario Research Institute and Professor of Pediatrics in the Faculty of Medicine, University of Ottawa. He is a Fellow of the Canadian Society for Exercise Physiology, Fellow of the American College of Sports Medicine, President of the Active Healthy Kids Global Alliance, Founder of the Sedentary Behaviour Research Network, and Adjunct/Visiting Professor at five other universities on four continents. Dr. Tremblay has published more than 450 scientific papers and book chapters in the areas of childhood obesity, physical activity measurement, exercise physiology, sedentary physiology and health surveillance. Dr. Tremblay received an honorary doctorate from Nipissing University, the Queen Elizabeth II Diamond Jubilee Medal, the Lawson Foundation 60th Anniversary Award, the Canadian Society for Exercise Physiology Honour Award, the Victor Marchessault Advocacy Award from the Canadian Pediatric Society, and the Vic Neufeld Mentorship Award in Global Health Research from the Canadian Coalition for Global Health Research for his leadership contributions to healthy active living in Canada and around the world. Dr. Tremblay's most productive work has resulted from his 30-year marriage to his wife Helen, yielding four wonderful children.

Learning Objectives:

1. Describe the relationships between movement behaviours (i.e., light, moderate, and vigorous physical activity, sedentary behaviour, and sleep) and health indicators in children.
2. Summarize the key elements of the public health guideline development process.
3. Share the new "Canadian 24-Hour Guidelines for Children and Youth (5–17 years) and the Early Years (0–4 years): An Integration of Physical Activity, Sedentary Behaviour, and Sleep".
4. Identify strategies for applying the guidelines in work with children with overweight or obesity.

Movement Behaviours in the Development and Maintenance of Obesity Phenotypes

Chris Ardern

Chris Ardern is a professor in the School of Kinesiology and Health Science at York University, and Affiliated Investigator at Southlake Regional Health Centre. His primary research interests include the epidemiology of physical activity, obesity, and cardiometabolic risk. Most recently, his work has focused on the use of risk algorithms, behavioural profiling, and geospatial analysis for the identification of high-risk subgroups. Much of this work involves the analysis of routinely collected administrative and clinical data to examine patterns of movement behaviors and their interactions in relation to obesity phenotypes.

Learning Objectives: The purpose of this review is to:

1. Provide an overview of the epidemiologic operationalization of the metabolically healthy and unhealthy obese phenotypes;
2. Describe patterns of movement behaviors (sleep, sedentary time, and moderate-to-vigorous physical activity), and;
3. Explore variation in the development and maintenance of metabolic health in these groups.

MINI REVIEW SESSION DETAILS

Life-Long Barriers to Physical Activity for People Living with Obesity

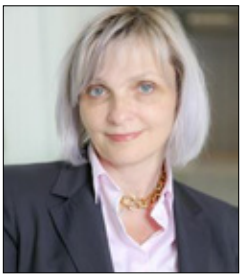
Jo-Anne Gilbert

Dr Gilbert has a PhD in kinesiology and she specialises in body weight management. In addition to working a the University o Montreal, she founded "Imparfait et en santé" where she helps people who are concerned about improving their overall health to find a personalized and enjoyable solution to manage their weight in the long term, without guilt or judgment. She is also the co-chair of the Montreal Chapter of Obesity Canada.

Mini Review 06: Mental Health

08:30 – 09:30 (Session Co-Chairs: David A. Macklin, Shahebina Walji)

Governor General Ballroom



Bed Time Story: An Overview of Binge Eating

Valerie Taylor

Dr. Valerie Taylor, MD, PhD, FRCP is a Professor and Chair of the Department of Psychiatry at the University of Calgary. Her academic focus is on obesity, metabolic syndrome and mental health. She is interested in the overlap between obesity, diabetes, cardiovascular disease and mental illness, the impact of pharmacotherapy on weight and behavior, and the role of the microbiome. She currently has 2 novel clinical trials looking at modifying the gut microbiome to treat mood disorders. She has over 120 peer reviewed publications and funding from a variety of national and international funding agencies.

Learning Objectives:

- To review the history of Binge Eating Disorder.
- To overview the diagnostic criteria for Binge Eating Disorder.
- To differentiate between eating disorders.
- To understand the current treatment options for Binge Eating Disorder.

Food Addiction and Obesity: Evidences from Animal Models and Human Studies

Guang Sun

Dr. Sun is a full professor at Faculty of medicine, Memorial University. Dr. Sun joined Memorial University in 2001. Dr. Sun's research interest focuses on the genetic, nutritional and endocrine factors of human obesity and diabetes. Dr. Sun has won 5 CIHR operating grants since 2003, and also successful in winning CFI Equipment fund, and numerous other grants. The total amount is over 3 million dollars as the principle investigator, and nearly 4 million dollars as co-investigator or collaborator. Dr. Sun has published over 90 peer reviewed papers, 139 abstracts, with many at top ranking journals including Diabetes, and American Journal of Clinical Nutrition. Dr. Sun's research findings have been awarded and honored by CIHR and related societies.

Dr. Sun has established the CODING study, the Childhood Obesity Study, the Overfeeding study, and the NL Food Addiction study. His major contribution on role of extracellular Ca++ as an independent risk factor in the development of insulin resistance, the finding of 45 obesity candidate genes in fat tissue. Dr. Sun is one of the pioneers in the study of food addiction and has made many primary findings in the field.

Learning Objectives:

1. Discuss evidence of food addiction from animal experiments at various levels;
2. Explain the evidence of food addiction from human studies, limitation and gaps to be filled.

MINI REVIEW SESSION DETAILS

Mental Health Matters: Optimizing Obesity Outcomes hrough Integrated Psychosocial Care

Sanjeev Sockalingam

Dr. Sanjeev Sockalingam is an Associate Professor of Psychiatry at the University of Toronto. He is the Psychosocial Director for the Toronto Western Hospital Bariatric Surgery Program at the University Health Network. He completed his medical school at the University of Manitoba and his psychiatry residency at the University of Toronto

He is currently the co-lead for the Extension for Community Healthcare Outcomes (ECHO) Ontario Mental Health at the Centre for Addiction and Mental and Health and the University of Toronto, which is a provincial hub-and-spoke knowledge-sharing network model building mental health and addiction capacity in rural Ontario.

Dr. Sockalingam has >140 peer-reviewed publications and is the co-editor of the books, "Psychiatric Care in Severe Obesity", a comprehensive summary of an integrated approach to the assessment and managing psychosocial care in severe obesity, and a newly released book by Cambridge University Press, "Psychological Care in Severe Obesity: A Practical Approach". He has funding from CIHR and other peer-reviewed agencies examining psychosocial outcomes related to obesity care, psychological treatments for obesity and exploring the construct of food addiction. He is the co-principal investigator on a large multi-site CIHR funded to evaluate the long-term outcomes of telephone-based cognitive behavioural therapy after bariatric surgery. Dr. Sockalingam is a co-author on the upcoming Canadian Obesity Guidelines scheduled to be published in 2019.

Learning Objectives:

1. To identify the association and impact of mental health issues in obesity care.
2. To list evidence-based psychosocial treatments to support obesity management.
3. To describe integrated care models in obesity management that can support patients living with co-occurring obesity and mental health issues.

Mini Review 07: Pediatrics

10:00 – 11:00 (Session Co-Chairs: Stasia Hadjiyannakis, Sarah Chapelsky)

Confederation Ballroom

The Health of Canadian Children Enrolled In Pediatric Weight Management Programs: Lessons Learned From The Canpwr Study

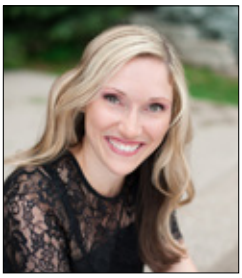
Katherine Morrison

Dr. Katherine Morrison is a pediatric endocrinologist, Professor in the Department of Pediatrics and Co-Director of the Centre for Metabolism, Obesity and Diabetes Research at McMaster University. She is a clinician researcher, active clinically in the Pediatric Weight Management and Pediatric Lipid Clinics at McMaster Children's Hospital. Her research is centered around the etiology, consequences and treatment of obesity and lipid disorders in children. Dr. Morrison's work is supported by the Heart and Stroke Foundation of Canada, the Canadian Institutes of Health Research, HAHSO and the Ontario Ministry of Health.

Learning Objectives:

1. Be aware of aspects of health in children with obesity at the time of presentation to one of 10 Canadian weight management programs.
2. Learn of the health domains within a proposed clinical staging system for pediatric obesity — the Edmonton Obesity Staging System – Pediatrics.
3. Be aware of lessons being learned through the CANadian Pediatric Weight management Registry (CANPWR).

MINI REVIEW SESSION DETAILS



Family-Based Childhood Obesity Interventions: Parents' Roles, Involvement, and Experiences

Shauna M. Burke

Shauna Burke is an Associate Professor in the School of Health Studies at Western University. Her primary specialization is the psychology of health and physical activity, with a specific focus on childhood obesity and family health. In addition to over 100 presentations, workshops, and invited lectures at national and international scientific conferences, Shauna has published several research articles and book chapters in the areas of childhood obesity, physical activity, and group dynamics, and has also co-authored a textbook entitled "Core Concepts in Health", now in its third edition. Shauna has received a substantial amount of funding to support her research, including an Early Researcher Award from the Ontario Ministry of Research and Innovation to support her program of work related to the development and implementation of family-based paediatric obesity interventions.

Since 2006, Dr. Burke has taught many health-related courses at Western, including the Personal Determinants of Health course—the largest in the School of Health Studies—to more than 500 first-year students each year. She has consistently received outstanding teaching evaluations and was recently awarded the Marilyn Robinson Award for Excellence in Teaching at Western University. She also supervises numerous graduate students, most of whom study childhood obesity and child/family health.

Learning objectives:

1) Examine and review the roles and influences of parents and caregivers in relation to childhood obesity and family-based paediatric obesity interventions.
2) Provide an overview of the family-based childhood obesity treatment intervention literature, with a focus on group-based interventions and those that target parents exclusively.
3) Highlight the views, experiences, and recommendations of parents and caregivers pertaining to childhood obesity treatment interventions.
4) Discuss future research directions and practical implications/considerations that may be of interest to conference attendees working or studying in the areas of child and family health.

DNA Methylation and the Early Origins of Obesity

Vern Dolinsky

- My research focuses on understanding mechanisms that link early life environmental health exposures to the development of obesity and obesity-related complications in the offspring.
- 2018–present, Co-lead of the Diabetes Research Envisioned and Accomplished in Manitoba (DREAM) Research Theme of the Children's Hospital Research Institute of Manitoba
- 2017–present Allen Rouse/Manitoba Medical Services Foundation Basic Research Scientist
- 2016–present, Associate Professor of Pharmacology, University of Manitoba
- 2011–16, Assistant Professor of Pharmacology, University of Manitoba
- 2006–11, Post-doctoral Fellow, Department of Pediatrics, University of Alberta
- 2003–06, Post-doctoral Fellow, Department of Physiology, University of Michigan
- 2003, PhD (Biochemistry) University of Alberta
- 1998, PhD (Biochemistry) University of Manitoba
- 1996, BScHon (Biochemistry) University of Manitoba

Learning Objectives:

1. Appreciate that the early life environment can also influence our risk for adverse metabolic health outcomes.
2. Understand how DNA methylation is affected by the early life environment and affect gene expression that defines metabolic disease risk.

MINI REVIEW SESSION DETAILS

Mini Review 08: Energy Homeostasis

10:00 – 11:00 (Session Co-Chairs: Eric Doucet, Jennifer Brown)

Governor General Ballroom

Metabolic And Genetic Factors Associated with Diet-Resistant Obesity: What's New?

Mary-Ellen Harper

Professor Mary-Ellen Harper received an undergraduate degree in Nutrition from the University of Guelph prior to completing her PhD in Biochemistry at the University of Ottawa. Dr. Harper then trained as a Postdoctoral Fellow in Biochemistry at the University of Cambridge (UK).

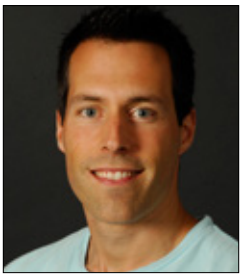
Dr. Harper's research focuses on mechanisms that impact the efficiency of energy conversion pathways in mitochondria. Changes in the efficiency of energy conversion can affect the development of diseases and metabolic dysfunction, and her research probes mechanisms in the context of obesity, diabetes, heart failure and cancer. Experimental approaches span from molecular in vitro studies, to mouse models, and to integrative studies in patient populations.

Research has been funded by CIHR, NSERC, Heart and Stroke Foundation, NIH, Canadian Cancer Society Research Institute, and CFI. In 2015, she was the recipient of a CIHR Foundations Award to support research on 'Mitochondrial Bioenergetics and Redox Biology in Obesity and Related Disease'. In 2018 she received the Departmental Researcher of the Year award. She currently holds a University Research Chair in Mitochondrial Bioenergetics. Dr. Harper is the Principal Investigator, and Director of the NSERC-funded Metabolomics Advanced Training and International Exchange (MATRIX) training program, based at Universities of Ottawa, McGill and Montréal.

Dr. Harper teaches at the undergraduate and graduate levels and serves on many scientific mentorship and other committees at the University of Ottawa. She has published over 160 peer-reviewed papers.

Learning Objectives:

1. To recognize the complex metabolic and genetic factors associated with obesity
2. To appreciate that diet-resistant obesity is associated with factors affecting the efficiency of energy metabolism in muscle.



Addressing Poor Sleep Health is Time Well Spent

Jean-Philippe Chaput

Dr. Chaput is an Associate Professor in the Faculty of Medicine at the University of Ottawa and a Research Scientist with the Healthy Active Living and Obesity Research Group at the CHEO Research Institute. His research focuses on the prevention of chronic diseases and the promotion of a healthy lifestyle. He is also interested in new determinants of obesity such as lack of sleep and mental stress. Dr. Chaput has published more than 250 peer-reviewed scientific articles, serves on many journal editorial boards and advisory committees, and has contributed to a large number of conferences around the world (>150 lectures). He also received several awards for his research. Outside of work, he enjoys traveling, playing tennis and eating with friends and family.

Learning Objectives: After this presentation, the attendees will be able to:

1. Understand the effects of lack of sleep on health;
2. Understand the link between sleep and obesity;
3. Understand the role of sleep in the prevention and treatment of obesity;
4. Understand the importance of addressing sleep health in clinic;
5. Obtain tools to assess sleep health for their patients.

MINI REVIEW SESSION DETAILS

Metabolic and Genetic Factors Associated with Diet-Resistant Obesity: What's New?

Andre Marette

Dr. Marette is Professor of Medicine and researcher at the Heart and Lung Institute, and the Institute of Nutrition and Functional Foods at Laval University. He holds a research Chair on the pathogenesis of insulin resistance and cardiovascular diseases (CVD). Dr. Marette is an international renowned expert on the pathogenesis of insulin resistance and cardiometabolic diseases and his research has advanced the understanding of the physiological and molecular mechanisms of inflammation, and opened new possibilities for prevention and treatment and type 2 diabetes and CVD. He is also studying how nutrition and food ingredients can modulate the gut microbiota to protect against obesity-linked intestinal inflammation, fatty liver disease and type 2 diabetes. He has published over 220 papers, reviews and book chapters and was invited to give more than a hundred lectures at various national & international conferences in the last 10 years. He currently serves as Editor-in-Chief for the Am J Physiol: Endo & Metab. and has authored two books in the last few years, one entitled La Vérité sur le Sucre edited by VLB and one entitled Yogurt: Roles in Nutrition and Impacts on Health, edited by CRC press. Dr. Marette has received several awards for his work including the prestigious Charles Best Award and Lectureship from the University of Toronto for his overall contribution to the advancement of scientific knowledge in the field of diabetes.

Learning Objectives:

1. Understanding the role of the microbiome in the pathogenesis of obesity and insulin resistance.
2. What is current state of knowledge on potential modulators of microbiome to prevent or treat obesity-linked disorders.

FRIDAY APRIL 26

Mini Review 09: Nutrition

08:30 – 09:30 (Session Co-Chairs: Isabelle Gagnon, Sarah Cawsey)

Confederation Ballroom

The Relationship Between Food Insecurity and Obesity in Canada

Valerie Tarasuk

Valerie Tarasuk is a professor in the Department of Nutritional Sciences at the University of Toronto. Her research extends to Canadian food policy and population-level dietary assessment, but her primary focus is food insecurity. Her research on food insecurity now comprises 70+ peer-reviewed publications and over 100 invited presentations. Her work has revealed the scale of the problem; delineated critical risk factors and conditions; charted the nutrition implications, health correlates, and associated health care costs; identified the policy underpinnings of household food insecurity; and explicated the relation of food insecurity to food banks. Most recently, she has led PROOF, an interdisciplinary research program launched in 2011 with funding from the Canadian Institutes of Health Research and designed to identify effective policy approaches to reduce household food insecurity in Canada.

Learning Objectives: Participants will gain an understanding of the problem of household food insecurity in Canada and how it relates to overweight and obesity among our population.

Advancing Food and Nutrition Policies for Prevention of Diet-Related Ncds in Canada and Globally

Lana Vanderlee

Dr. Lana Vanderlee is a postdoctoral fellow at the University of Waterloo. She primarily conducts food environment and nutrition policy research, with a focus on food labelling policy, and works closely with governmental and non-governmental organizations to inform policy decisions. She is currently leading a multi-country study to examine the impact of nutrition policies on nutrition-related behaviours and dietary outcomes. She also conducts work critically examining government and food industry policies relating to healthy diet and obesity in Canada, as part of the International Network for Food and Obesity/Non-Communicable disease Research, Monitoring and Action Support (INFORMAS).

Learning Objectives: By the end of this presentation, participants will be able to:

1. Describe how Canadian government policies to improve the food environment and promote healthier diets compare to promising practices internationally.
2. Identify prioritized actions and opportunities for government and industry to help improve food environments in Canada.

MINI REVIEW SESSION DETAILS

Shock and Awe-ful: How Our Food Environment Provides The Strongest Case Against Personal Responsibility As Obesity's Cause Or Cure And What We Might Do About It

Yoni Freedhoff

Associate Professor of Family Medicine at the University of Ottawa, Medical Director, Bariatric Medical Institute, Dad, Author of The Diet Fix, and co-author of Best Weight, pathological blogger at Weighty Matters, no pharma conflicts (yet).

Learning Objectives: At the conclusion of this presentation learners will be able to:

1. Identify areas in the food environment and food culture that in turn challenge the notion that personal responsibility is a useful target of public health interventions around obesity.
2. Recognize the role of health care, public health, and STEM professionals in both localized and larger advocacy efforts.

Mini Review 10: Clinical

08:30 – 09:30 (Session Co-Chairs: Judy Shiau, Marie-Philippe Morin)

Governor General Ballroom

5As Team — Advancing Obesity Management in Primary Care

Denise L. Campbell-Scherer

Dr. Denise Campbell-Scherer is a Professor in the Department of Family Medicine, and the Associate Dean of the Office of Lifelong Learning and Physician Learning Program at the University of Alberta. She completed Medical School at the University of Toronto in 2000 and her residency in family medicine at McMaster University. She has worked in rural Northern Canada, the University of Michigan, and the University of Alberta as a family physician, with extensive experience in residency education. With a background in evidence-based clinical practice, she has been active internationally in education of multidisciplinary learners and is an Associate Editor of BMJ, Evidence-Based Medicine (http://ebm.bmj.com). Dr. Campbell-Scherer's research focuses on innovations to transform clinical practice which result in change of benefit to patients, providers and the healthcare system. She heads an interdisciplinary research team, the 5As Team Program, which aims to improve the primary care of patients living with obesity. In addition, she has been an active co-lead and co-investigator on several large national and provincial research grants including BETTER, BETTER2, and BETTERWISE projects (www.better-program.ca) that are seeking to transform primary prevention and screening of multiple conditions in diverse regions of Canada.

Learning Objectives: At the conclusion of this presentation, participants will be able to:

1. Understand how to use a person-centered approach when caring for patients living with obesity.
2. Analyze a framework for building capacity among interdisciplinary teams in a primary care setting.

Understanding Intrinsic Barriers and Enablers to Weight Loss

Bob Dent

Robert Dent is a specialist in Internal Medicine with an academic appointment in Endocrinology at the University of Ottawa. In 1992 he established the Weight Management Clinic at the Ottawa Hospital which was designed as a platform to observe the obesities in the baseline state with a standardized history, physical and clinical lab tests, then through a dietary challenge, and on to long-term follow-up.

By 1998, The Ottawa Collaboration for the Study of Obesity was formed with Drs. Ruth McPherson, Mary Ellen Harper and Bob Dent. This collaboration has produced over 50 papers in peer reviewed journals and has held two CIHR grants dealing with Metabolic and Genetic determinants of Obesity. It has also received funding from industry and a Department of Medicine Translational Research Award.

Learning Objectives:

1. To recognize that some patients have barriers to energy expenditure and do not respond well to dietary restriction.

MINI REVIEW SESSION DETAILS

Impact of Obesity on Liver Disease: NASH and Other Related Problems

Erin Kelly

Erin Kelly is an assistant professor of medicine at the University of Ottawa and head of Hepatology. She completed her medical school at McGill University, and Internal medicine and Gastroenterology at the University of Ottawa. She then pursued additional training in Hepatology at UCSF in San Francisco. She obtained her Masters in clinical trials through the London School of Hygiene and Tropical Medicine, University of London, UK. Her research interests include management of cirrhosis and its complications as well as non-alcoholic fatty liver disease.

Learning Objectives:

1. Review the epidemiology and natural history of NAFLD
2. Identify populations at risk for NAFLD, and how to utilize non-invasive tools to identify those at risk for progressive disease
3. Discuss treatment options for patients with NAFLD

Mini Review 11: Reproductive Health

10:00 – 11:00 (Session Co-Chairs: Kristi B. Adamo, Kara Nerenberg)

Confederation Ballroom

Prenatal Physical Activity: Baby Steps for Better Health

Margie Davenport

Dr Margie Davenport, PhD, is an Associate Professor in the Faculty of Kinesiology, Sport, and Recreation at the University of Alberta. She is a Heart & Stroke Foundation of Canada National New Investigator in Women's Heart and Brain Health, and Director of the Program for Pregnancy and Postpartum Health (exerciseandpregnancy.ca). She was Chair of the Guideline Consensus Panel for the 2019 Guideline for Physical Activity throughout Pregnancy. Her research program is pursuing projects to understand the role of physical activity on the lifelong health of pregnant/postpartum women and their children.

Learning Objectives: At the end of the presentation, the participant will be able to:

1. Recognize the role of prenatal exercise in the prevention of maternal and fetal complications (e.g., excessive gestational weight gain, diabetes, macrosomia etc).
2. Recommend the appropriate program of exercise for pregnant women.

Preconception Management of Obesity: Getting Fit for Fertility and Fetal Health

Jean-Patrice Baillargeon

Jean-Patrice Baillargeon, MD, MSc is board-certified in endocrinology and metabolism and professor of medicine at the Université de Sherbrooke.

Dr Baillargeon primary areas of expertise include reproductive endocrinology, polycystic ovary syndrome, obesity, health system improvement and biostatistics/epidemiology. He completed a postdoctoral fellowship on the metabolic aspects of polycystic ovary syndrome (PCOS) under the supervision of Dr Nestler in 2003 and obtained a Master's in Clinical research and Biostatistics from the Virginia Commonwealth University, Richmond VA. He is director of the Reproductive Endocrinology clinic of the Centre hospitalier universitaire de Sherbrooke (CHUS) and an active member of the Lifestyle Multidisciplinary Management Clinic of the CHUS.

Dr Baillargeon has founded with researchers, patient representatives, health professionals, health care administrators and policy-makers the Canadian network on reproductive and maternal health of women with obesity and infertility. With support of this network, he recently completed a CIHR-funded, randomized-controlled trial (RCT) assessing in Sherbrooke the Fit-For-Fertility program, a transferable, interdisciplinary lifestyle intervention for women with obesity that is integrated to the fertility clinic. Following the success of this trial, Dr Baillargeon obtained in 2018 a CIHR Project grant to assess the benefits of the Fit-For-Fertility program in seven clinics throughout Canada with a multicenter RCT.

Dr Baillargeon received a Young Investigator Award from the Canadian Society of Endocrinology and Metabolism and is actually the President of this Society. His has published >75 original peer-reviewed articles, 29 review articles and 6 book chapters.

Learning objectives: At the end of this presentation, participants will be able to:

1. Understand the importance of obesity for women who consult to the fertility clinic
2. Explain the impact of adopting healthy lifestyle on the fertility of women with obesity and their offspring
3. Discuss the example of the Fit-For-Fertility program implanted and evaluated in Sherbrooke

MINI REVIEW SESSION DETAILS

Current Evidence for the Management of Gestational Weight Gain for Women with Obesity

Helena Piccinini-Vallis

Dr. Helena Piccinini-Vallis is Associate Professor and Clinician Investigator in the Department of Family Medicine at Dalhousie University, and Research Lead at the IWK Health Centre in Halifax. Her interdisciplinary clinical work and research interests focus on weight changes in pregnancy and on the role of primary care clinicians in helping their patients manage their pregnancy weight. She is nearing the end of her PhD in Family Medicine at Western University in London, Ontario, with a focus on women's perceptions of gestational weight gain and the relationship between gestational weight gain and childhood BMI trajectories. In her spare time she is a competitive Masters swimmer.

Learning Objectives:AAt the end of this session participants should have a better understanding of:

1. The guidelines for gestational weight gain for women with obesity.
2. The outcomes associated with guideline-discordant gestational weight gain for women with obesity.
3. The current evidence for interventions to manage gestational weight gain for women with obesity.

Mini Review 12: CAGS-Obesity Canada Session: The Optimal Diabetic Surgical Operation-A Debate

10:00 – 11:00 (Session Chair: Amy Neville)

Governor General Ballroom

Sleeve is Best

James Ellsmere

Dr. Ellsmere is a Bariatric Surgeon at the QEII Health Sciences Centre and an Assistant Professor in the Department of Surgery, Dalhousie University, Halifax, NS. He is the co-Director of the Bariatric Surgery Program, Advanced Gastrointestinal Minimally Invasive Surgery Fellowship Program and the Surgical Skills Centre.

Dr Ellsmere completed a Bachelor in Electrical Engineering (1995) and Medical Doctorate (1999) from Dalhousie University. He completed his Masters in Medical Informatics (2003) from the Massachusetts Institute of Technology and his Residency in General Surgery (2005) at Dalhousie University. He then completed fellowships in Minimally Invasive Surgery (2006) and Therapeutic Endoscopy (2007) at Harvard Medical School.

His research group is currently focused on developing and evaluating endoscopy based technologies to improve the delivery of health care.

Learning Objectives:

1. Review the principles of performing a safe and durable sleeve gastrectomy.
2. Understand the risk/benefit profile of sleeve gastrectomy that makes it a more desirable option for many patients and providers.
3. Discuss options for managing long-term weight regain should it occur.

Bypass is Best

Ahmed Elnahas

Dr. Ahmad Elnahas joined the Division of General Surgery at Western University in 2018 and specializes in Minimally Invasive Gastrointestinal and Bariatric Surgery.

After completing his medical education and training at McMaster University, Dr. Elnahas received his Master of Science in Clinical Epidemiology & Health Care Research at the University of Toronto's Institute of Health Policy, Management & Evaluation. Following his graduate degree, Dr. Elnahas completed a fellowship in Advanced Minimally Invasive Gastrointestinal & Bariatric Surgery at the University of Toronto.

Learning Objectives:

1. Review the mechanism of weight loss after RYGB.
2. Review the mechanism of diabetes remission after RYGB.
3. Compare the RYGB to other bariatric procedures with respect to diabetes remission.

MINI REVIEW SESSION DETAILS

Switch is Best

Dennis Hong

Dr. Dennis Hong is an Associate Professor in the Department of Surgery at McMaster University. He specializes in Minimally Invasive and Bariatric Surgery. Dr. Hong was born in Seoul, South Korea. He completed his undergraduate studies in Biology from the University of Western Ontario in 1992. Dr. Hong received his medical degree (M.D.) from the University of Toronto in 1996. He completed his residency in the Department of Surgery, McMaster University Medical Centre in Hamilton, ON. Then in 2003, he completed a Minimally Invasive Surgery Fellowship at the Legacy Health System in Portland, Oregon, U.S.A.. He joined the Department of Surgery at McMaster University in 2010.

PECHA KUCHA SESSION DETAILS

WEDNESDAY, APRIL 24, 2019

11:00 – 11:30
Confederation Ballroom
Pecha Kucha Presentations 1: Food Environments

PK Poster Board #	Abstract #	Title	Speaker	Institution
PK1.1	4098	An Evaluation of Voluntary Commitments Made by Major Food Companies in Canada to Improve the Nutritional Quality of their Products	Laura Vergeer	Department of Nutritional Sciences, Faculty of Medicine, University of Toronto, Toronto, ON
PK1.2	4106	The Influence of Sugar Taxes and Front-of-Package Nutrition Labels on Consumer Purchases of Protein, Calcium and Fibre	Rachel B.Acton	University of Waterloo Waterloo, ON
PK1.3	4088	Global Benchmarking of Unhealthy Food and Beverage Advertising to Children on Television: How Does Canada Measure Up?	Monique Potvin Kent	School of Epidemiology and Public Health, Faculty of Medicine, University of Ottawa, Ottawa, ON
PK1.4	4133	Obesity in Canada – Understanding the Numbers	Karen C. Roberts	Public Health Agency of Canada, Ottawa, ON

11:00 – 11:30
Governor General Ballroom
Pecha Kucha Presentations 2: Weight Bias

PK Poster Board #	Abstract #	Title	Speaker	Institution
PK2.1	4116	Weight Bias Internalization: Sex Differences and Relationship to Physical Activity and Sedentary Behaviour	Matthew Levy	Concordia University Montreal, QC
PK2.2	4021	Obesity as a Chronic Disease: Listening to the Voices of Individuals Living with Obesity	Dayna Lee-Baggley	Nova Scotia Health Authority/ Dalhousie University, Halifax, NS
PK2.3	4140	Does Disordered Eating Mediate the Longitudinal Relationship Between Weight-based Teasing and BMI in Canadian youth?	Gary S.Goldfield	Children's Hospital of Eastern Ontario (CHEO) Ottawa, ON
PK2.4	4572	Shifting Public Perceptions About the Nature of Obesity in Canada	Theodore K.Kyle	ConscienHealth Pittsburgh, PA

PECHA KUCHA SESSION DETAILS

THURSDAY, APRIL 25, 2019

11:00 – 11:30
Confederation Ballroom
Pecha Kucha Presentations 3: Pediatrics

PK Poster Board #	Abstract #	Title	Speaker	Institution
PK3.1	4066	Characteristics of Clinics Participating in the CANadian Pediatric Weight Management Registry (CANPWR): A Descriptive Report	Kristen Zahn	McMaster University Hamilton, ON
PK3.2	4096	Youth and Parent Motivation to Change Lifestyle Habits: Preliminary Findings from the Readiness and Motivation Interview for Families (RMI-Family) Study	Marcus O'Neill	University of Alberta Edmonton, AB
PK3.3	4062	Health Trajectories of Children with Severe Obesity Attending a Weight Management Program	Annick Buchholz	Children's Hospital of Eastern Ontario Centre for Healthy Active Living Ottawa, ON
PK3.4	4125	Behavioural Profile of Children Who Take Part in a Childhood Healthy Weights Family-Based Healthy Living Program	Karen Strange	Childhood Obesity Foundation Victoria, BC

11:00 – 11:30
Governor General Ballroom
Pecha Kucha Presentations 4: Energy Homeostasis

PK Poster Board #	Abstract #	Title	Speaker	Institution
PK4.1	4102	Cold Can Help With Weight Loss: Fact or Fiction	Kurt McInnis	University of Ottawa Ottawa, ON
PK4.2	4036	Severe Weight Cycling is as Bad for Cardiometabolic Health as Consistent Weight Gain	Lisa Kakinami	Concordia University Montreal, QC
PK4.3	4025	The Effects of Methylphenidate on Appetite, Energy Intake, and Body Composition in Individuals with Obesity: A Randomized, Double Blind, Placebo-Controlled Pilot Study	Shakibasadat Banifatemi	University of Ottawa Ottawa, ON
PK4.4	4122	Appetite Changes After 7-day of Caloric Restriction Predict Final Weight and Fat Mass Loss in Pre-menopausal Women Living with ObesityNature of Obesity in Canada	Luzia Jaeger Hintze	University of Ottawa Ottawa, ON

PECHA KUCHA SESSION DETAILS

FRIDAY, APRIL 26, 2019

11:00 – 11:30
Confederation Ballroom
Pecha Kucha Presentations 5: Reproductive Health

PK Poster Board #	Abstract #	Title	Speaker	Institution
PK5.1	4080	Does Weight Loss Prior to Pregnancy Impact Gestational Weight Gain and Adherence to Nutrition and Exercise Recommendations during Pregnancy?	Taniya S.Nagpal	Western University Canada, London, ON
PK5.2	4117	The Association Between Women's Gestational Weight Gain Concordance with Guidelines and their Children's Body Mass Index Trajectories	Helena Piccinini-Vallis,	Dalhousie University Halifax, NS
PK5.3	4141	Strategies for Healthy Lifestyle During Pregnancy: Can We Prevent Excessive Gestational Weight Gain?	Karishma S.Hosein	Western University London, ON
PK5.4	4065	A Lifestyle Management Program Targeting Women with Obesity and Infertility Improves their Chances of Conceiving Without Fertility Treatments	Matea Belan	Université de Sherbrooke Sherbrooke, QC

11:00 – 11:30
Governor General Ballroom
Pecha Kucha Presentations 6: Bariatric

PK Poster Board #	Abstract #	Title	Speaker	Institution
PK6.1	4101	Examining the Gap Between Eligible and Referred Patients for Bariatric Surgery in South Eastern Ontario.	Rachael Morkem	Queen's University Kingston, ON
PK6.2	4137	Cortisol Awakening Response in Patients with Severe Obesity Awaiting Bariatric Surgery	Giada Ostinelli	Institut Universitaire de Cardiologie et Pneumologie de Québec Quebec, QC
PK6.3	4035	Outcome of Bariatric Surgery in Patients who Achieve Weight Loss in Excess of 20% with Liraglutide	Sarah Chapelsky	Edmonton Adult Bariatric Specialty Clinic Edmonton, AB
PK6.4	4055	Patient Perceptions on Characteristics for Guiding Prioritization of Obese Individuals for Bariatric Surgery	Jennifer R. Donnan	Memorial University of Newfoundland St. John's, NL

CONCURRENT ORAL PRESENTATION DETAILS

WEDNESDAY, APRIL 24, 2019

Program #	Abstract #	Title	Speaker	Institution
O1.01	4082	Natural History of Glucose Tolerance Across Childhood and Adolescence Among Youth Having a Parent with Obesity	Soren Harnois-Leblanc	Research Center of CHU Sainte-Justine, Montréal, QC;
O1.02	4060	The Association Between Weight-Based Teasing from Peers and Family in Childhood and Depression in Childhood and Adulthood: a Systematic Review	Erica Szwimer	Concordia University, Montreal, QC
O1.03	4077	Adolescents' Recommendations for a Healthy Lifestyle: a Multi-centre, Qualitative Study	Maryam Kebbe	University of Alberta, Edmonton, AB
O1.04	4095	Parents' Views of and Recommendations Related to Parent and Child Involvement in Family-based Paediatric Obesity Interventions	Shauna M. Burke	Western University, London, ON
O1.05	4109	Parental Perceptions of a Parent-Only Childhood Obesity Intervention and Its Impact on Families	Kristen C. Reilly	Western University, London, ON
O1.06	4020	Review of a Family Centred Treatment Initiative to Improve Health Behaviours Stemming from a Partnership Between Public Health and a Hospital Based Program	Constance Oates Claire Townshend	Peterborough Regional Health Centre, Peterborough, ON Peterborough Public Health
O1.07	4553	Weight Management for Children with Disabilities: Exploring the Perspectives of Healthcare Professionals Working in Paediatric Weight Management Clinics in Canada	Amy C. McPherson	Bloorview Research Institute, Toronto, ON
O2.01	4142	Development of India Report Cards on the Physical Activity for Children and Youth: an Integral Component of Cross-Country Evaluations of Policies, and Other Factors	Tarun R. Katapally	Johnson Shoyama Graduate School of Public Policy, University of Regina (Regina, Canada), Regina, SK
O2.02	4059	Are There Differences in Physical Activity by Sex and Body Weight Status on School Days in Primary School Children?	Ryan E. Reid	Université de Montréal, Montreal, QC
O2.03	4090	Toward Trauma- and Violence-Informed Physical Activity and Obesity Prevention Programming	Francine Darroch	University of British Columbia, Vancouver, BC
O2.04	4147	The Effects of Resistance Training on Cognitive Function in Sedentary, Overweight Older Adults	Joyla Furlano	Western University, London, ON
O2.05	4123	Training and Implementation Support For a Childhood Healthy Weights Family-Based Healthy Living Program	Karen Strange	Childhood Obesity Foundation, Victoria, BC
O2.06	4532	The Extent of Unhealthy Food and Beverage Sponsorship of Children's Sports Clubs in Ottawa	Odera Ekeh	Department of Biology, Faculty of Science, University of Ottawa, Ottawa, ON
O2.07	4540	Explicit and Implicit Weight Bias Attitudes Among Medical Students	Meena Saad	Memorial University of Newfoundland, St. John's, NL
O3.01	4144	Effect of a Standardized Psychiatric Intervention on Outcomes of a Public Multidisciplinary Obesity Program in Mexico City	Marcela Rodriguez Flores	Instituto Nacional de Ciencias Medicas y Nutricion Salvador Zubiran, Mexico City, CMX, Mexico
O3.02	4017	Prospective Study of Attachment as a Predictor of Eating Pathology and Weight Loss Two Years After Bariatric Surgery	Samantha E. Leung	University Health Network - Toronto Western Hospital, Toronto, ON
O3.03	4051	Addictive Tendency Toward Food: a Largely Missed Major Cause for Obesity	Guang Sun	Memorial University, St. John's, NL

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Program #	Abstract #	Title	Speaker	Institution
O3.04	4015	Predictors of Response to Telephone-Based Cognitive Behavioral Therapy in Bariatric Surgery Patients	Kenya A. Costa-Dookhan	Toronto Western Hospital Bariatric Surgery Program, Toronto, ON
O3.05	4093	An Overview of the Hat Trick Men's Health Intervention and Presentation of Key Findings	John S. Buxcey	University of Victoria, Victoria, BC
O3.06	4023	Sustained Behaviour Change to Improve Obesity Outcomes: It's Time to Abandon Willpower to Appreciate Wanting	Michael Vallis	Dalhousie University, Halifax, NS
O3.07	4502	Combination Extended-release Naltrexone/Bupropion Causes Significant Weight Loss Without Worsening Psychiatric Symptoms	Melonie Burrows	Bausch Health Canada, Laval, QC

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O4.01	4084	The Extent and Nature of Nutrition and Sports-Related Corporate Social Responsibility Initiatives of the Canadian Food Industry: What are the Implications for Public Health?	Elise Pauzé	School of Epidemiology and Public Health, Faculty of Medicine, University of Ottawa, Ottawa, ON
O4.02	4045	Dietary Patterns Associated with Metabolic Health in French-speaking Adults from the Province of Quebec - Analysis from the PREDISE Study	Jacynthe Lafreniere	Institute for Nutrition and Functional Foods - Laval University, Quebec, QC
O4.03	4086	Healthy Eating Index Scores are Associated with Adiposity in Children Born Very Low Birth Weight	Meghan McGee	University of Toronto, Toronto, ON
O4.04	4058	What Health Aims and Topics are More Popular for Teens and Parents Using a Health App?	Janice Macdonald	Childhood Obesity Foundation, Vancouver, BC
O4.05	4549	Exploring the Relationship Between Weight Management, Weight Perception, and Dietary Quality Among Canadian Young Adults	Amanda Raffoul	School of Public Health and Health Systems, University of Waterloo, Waterloo, ON
O4.06	4545	Developing Foodbot Factory: a Case Study on the Importance of Iterative Development and Usability Testing for mHealth Interventions	Jacqueline M. Brown	University of Ontario Institute of Technology, Oshawa, ON
O5.01	4067	Male Partners of Subfertile Couples in Which the Spouse Is Obese Display Adverse Weight and Lifestyle Associated with Reduced Sperm Quality	Matea Belan	Université de Sherbrooke, Sherbrooke, QC
O5.02	4078	Breastfeeding and Childhood Obesity: a Cost Saving Analysis	Alicia K. Taylor	Faculty of Medicine, Memorial University of Newfoundland, St. John's, NL
O5.03	4111	Associations Between Breastfeeding and Insulin Dynamics Among Children with a Parental History of Obesity	Andraea Van Hulst	Ingram School of Nursing, McGill University, Montréal, QC
O5.04	4099	Exercise Effects on C-Reactive Protein During Pregnancy: a Systematic Review of Randomized Controlled Trials	Roberta Bgeginski	The University of Western Ontario, London, ON
O5.05	4027	Overview of Obesity Prevention During Infancy	Ilona Hale	University of British Columbia, Kimberley, BC
O5.06	4113	Mobile Health Applications for Improving Lifestyle Behaviours During and After Pregnancy: Environmental Scan	Rebecca H. Liu	Faculty of Health Sciences, School of Human Kinetics, University of Ottawa, Ottawa, ON
O5.07	4533	Birth Outcomes of Women with BMIs > 30kg/m2 Enrolled for Care at Freestanding Birth Centers	Cecilia M. Jevitt	University of British Columbia, Midwifery, Dept. Family Practice, Vancouver, BC
O6.01	4068	Ain't Your Grandma's Obesity Anymore	Jennifer L. Kuk	York University, Toronto, ON

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Program #	Abstract #	Title	Speaker	Institution
O6.02	4019	Perceptions of Barriers to Effective Obesity Management in Canada: Results from the ACTION Study	Sue D. Pedersen	C-ENDO Diabetes & Endocrinology Clinic, Calgary, AB
O6.03	4034	Measuring and Enhancing Readiness in Healthcare Providers in Obesity and Chronic Disease Management	Dayna Lee-Baggley	Nova Scotia Health Authority, Halifax, NS
O6.04	4037	Designing a Conversation Tool to Better Support Primary Care Obesity Management	Denise L. Campbell-Scherer	University of Alberta, Edmonton, AB
O6.05	4043	Supporting People with Obesity: Specialist Community Occupational Therapy	Marta Adamus	Bournemouth University, Bournemouth, United Kingdom
O6.06	4063	Development of a Type 2 Diabetes Prevention Toolkit: Perspectives of Healthcare Professionals	Stasia Hadjiyannakis	Children's Hospital of Eastern Ontario Research Institute, Ottawa, ON
O6.07	4022	Weight Loss ≥ 20% with Liraglutide in Individuals with BMI ≥ 50 kg/m2	Sarah Cawsey	University of Alberta, Edmonton, AB

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O7.01	4091	Microbial Dysbiosis, Intestinal Dysfunction, and Adipose Tissue Inflammation are Attenuated in Mice with Obesity fed High-Fat Diet Supplemented with Cooked Navy Beans	Krista A. Power	University of Ottawa, Ottawa, ON
O7.02	4029	Acute Effects of Almonds on Postprandial GLP-1 Concentrations and Subjective Appetite Sensations in a Sample of Men with Type 2 Diabetes	Alexandra M. Bodnaruc	University of Ottawa, Ottawa, ON
O7.03	4064	Combining Prebiotics with Exercise: a Post-Exercise Dietary Strategy for Regulating Appetite	Courteney C. Hamilton	University of Lethbridge, Lethbridge, AB
O7.04	4048	Methylphenidate (MPH) Increases Odour Threshold with Associated Decreases in Appetite and Food Palatability	Brandon A. Heidinger	University of Ottawa, Ottawa, ON
O7.05	4128	Lack of Association between Dietary and Circulating Amino Acids in Middle-Aged Women	Ina Maltais-Payette	Quebec Heart and Lung Institute, Québec, QC
O7.06	4132	Dietary Fructose Induces Synaptic Plasticity at NPY Neurons	Mikayla A. Payant	Carleton University, Ottawa, ON
O8.01	4054	Patient Preferences Towards Characteristics to Be Used in Prioritizing Patients for Bariatric Surgery: a Discrete Choice Experiment	Jennifer R. Donnan	Memorial University of Newfoundland, St. John's, NL
O8.02	4552	Implementation of the Primary Care Pathway for the Prevention and Management of Obesity (3PMO) within Calgary Foothills Primary Care Network (PCN)	Sonja Wicklum	University of Calgary, Calgary, AB
O8.03	4112	The Effect of Methylphenidate on Resting Energy Expenditure, Thermic Effect of Food and Physical Activity Energy Expenditure in Individuals Living with Obesity: A Pilot Study	Kaamel Hafizi	University of Ottawa, Ottawa, ON
O8.04	4131	Breast Adipose Tissue Glucocorticoid and Estrogen Levels: Link with Breast Cancer Prognostic Markers and Adiposity	Sofia Laforest	Endocrinology and Nephrology Research Unit, CHU de Quebec Research Center-Laval University, Quebec City, QC
O8.05	4041	Sarcopenic Obesity in Adults with Knee Osteoarthritis	Kristine Godziuk	
O8.06	4541	The Effect of Age and EOSS Obesity Stage on Weight Loss	Corita Vincent	University of Toronto, Toronto, ON

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Program #	Abstract #	Title	Speaker	Institution
O9.01	4073	Can Small Changes Produce Long Lasting Results? a Review of the Small Changes Behavioural Intervention Approach for Weight Management	Lesley D. Lutes Stefanie Ciszewski	University of British Columbia – Okanagan, Kelowna, BC
O9.02	4039	The Adult Eating Behaviour Questionnaire in an Adult Canadian Sample: Factor Structure and Associations with BMI	Tamara R. Cohen	Concordia University, Montréal, QC
O9.03	4105	Elements of Successful Mobile Apps and Serious Games to Instill Lifestyle Change	Bradley Tanner	Clinical Tools, Chapel Hill, NC, USA
O9.04	4097	Which Characteristics Favour Successful Weight Loss? The CIRCUIT Program Experience	Prince Kevin C. Danieles	CHU Sainte-Justine, Montreal, QC
O9.05	4110	Tackling Weight-Based Stigma in the Classroom: Developing Capacity for Weight-Sensitive Instruction among University Students and Instructors	Lesley Andrade	University of Waterloo, Waterloo, ON
O9.06	4537	Weight Bias: A Predictor of Supporting Public Health Policies	Iyoma Edache	Concordia University, Montreal, QC

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Poster Board #	Abstract #	Poster Title	Presenter(S)
P01A	4053	"Caring About Me" Framework: A Constructivist Grounded Theory Study Exploring Patient-Centered Care Experience in a Collaborative Bariatric Surgery Program	Youssef, Alaa T.
P01B	4087	The change in alcohol consumption by sex following bariatric surgery	Mercier, Li Anne
P02A	4130	Pre-surgical self-esteem and sex are linked to depression following bariatric surgery	Woods, Robbie
P02B	4038	Maternal Obesity Results in Decreased Hypothalamic and Placental POMC Expression	Nesbitt, Catherine E.
P03A	4046	The Saturated Fatty Acid Palmitate Causes Insulin Resistance in Skeletal Muscle Cells, Impairing GLUT4 Translocation and Rac1-dependent Actin Remodelling	Tokarz, Victoria
P03B	4052	Fat but fit: How hibernating ground squirrel adipose tissue regulates pro-inflammatory signaling pathways	Logan, Samantha M.
P04A	4075	Endocannabinoid signalling is required for ghrelin-induced motivated feeding within the VTA	Edwards, Alexander W.
P04B	4083	Comparative study of myokine secretion in the context of obesity and type 2 diabetes in response to acute and chronic exercise	Garneau, Léa
P05A	4094	Cooked white and dark red kidney beans improve body composition during the development of high fat diet-induced obesity in C57Bl/6 male mice	Rodrigue, Alexane F.
P05B	4104	Hypoxia Perturbs the Transcriptional Response to Dioxin-like Persistent Organic Pollutants in Human Fat Cells	El Amine, Zeinab
P06A	4121	The Development of a Web-Based Component For a Childhood Healthy Weights Family-Based Healthy Living Program	Adiputranto, Dimas
P06B	4531	Severe Obesity and Global Developmental Delay in Preschool Children: Preliminary Findings from a Canadian Paediatric Surveillance Program	Gehring, Nicole D.
P07A	4044	Women's Self-Efficacy is Associated with Meeting Institute of Medicine Gestational Weight Gain Guidelines: Findings from the Canadian Electronic Maternal Health Survey	Halili, Lyra
P07B	4126	A Food Frequency Questionnaire to Determine Dietary Patterns in Pregnant Women: A Pilot Study	Manley, Mollie
P08A	4576	Development of a Core Outcome Set for Studies on Obesity in Pregnant Patients (COSSOPP) and Identified Challenges	Dadouch, Rachel
P08B	4135	Methylphenidate (MPH) Affects Executive Functioning with Associated Improvements in Appetite Control: A Pilot Study	El-Amine, Fatmé
P09B	4074	The direct effects of BPA exposure on skeletal muscle mitochondrial function and insulin sensitivity	Ahmed, Fozia
P10A	4547	Bidirectional and longitudinal associations between maternal parenting practices and children's BMI z-score	Danieles, Prince Kevin C.

POSTER PRESENTATIONS

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Poster Board #	Abstract #	Poster Title	Presenter(S)
P10B	4120	Body weight diversity in physical activity promotion: Perspectives of women living with obesity	Myre, Maxine
P11A	4542	Adolescent obesity and academic achievement: a cross-sectional analysis of the COMPASS study	Livermore, Maram
P11B	4560	A patient-centered Weight Related Quality of Life Index to measures the health impact of different obesity interventions	Moga, Ana M.
P12A	4081	The Lobbying Activities of Big Food: What Strategies are Being Used to Influence Nutrition Policies in Canada?	Vadenbrink, Darrell
P12B	4028	Protocol for the BE-EMPOWERED Study: Bariatric Outcome Enhancement – Evaluating a Mindfulness-based Program to Optimize Weight-loss and Reduce Eating Disorder Symptoms	Williamson, Tamara M.
P13A	4047	The Influence of Pre-surgical Self-Esteem on Body Image Dissatisfaction and Weight-loss 12-months after Bariatric Surgery	Felske, Ashley N.
P13B	4076	Associations between Preoperative Psychological Factors and Weight Measures following Bariatric Surgery	Julien, Cassandre A.
P14A	4079	Medication Use After Laparoscopic Sleeve Gastrectomy: Results from a Bariatric Surgery Cohort Study	Snow, Malcolm
P14B	4530	Early weight loss in adolescents following bariatric surgery predicts weight loss at 12 and 24 months	Chu, Lisa
P15A	4061	Extracurricular Activity Involvement and Body Image in Youth with Severe Obesity: The Mediating Role of Social Life	Valois, Darcie
P15B	4119	Designing and Developing a Childhood Healthy Weights Family-Based Healthy Living Program: A Stakeholder Guided Approach	Strange, Karen
P16A	4134	Is obesity a disease? A qualitative study examining the perceptions of pediatricians	Farnesi, Biagina-Carla
P16B	4136	The relationship between vitamin D, calcium and high sensitivity C creative protein in adolescents living with severe obesity	Erdstein, Julius
P17A	4138	Sex differences in mental health issues among adolescents living with severe obesity	Farnesi, Biagina-Carla
P17B	4057	Does metformin therapy influence the effects of intensive lifestyle intervention? Exploring the interaction between first line therapies in the Look AHEAD trial	Terada, Tasuku
P18A	4554	Accuracy of a Portable Indirect Calorimeter for Measuring Resting Energy Expenditure in Women with Class II/III Obesity	Ford, Katherine L.
P18B	4069	Exploring how a mobile health application effects the transition to independent exercise in adults diagnosed with type 2 diabetes	Janssen, Sarah M.
P19A	4072	Food and weight monitoring in undergraduate students: Examining the relationship between monitoring and eating disorder risk	Caldwell, Ali

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Poster Board #	Abstract #	Poster Title	Presenter(S)
P19B	4534	Developing the Live 5-2-1-0 mobile app using human-centered design and co-creation to promote healthy behaviours in children	Yau, Kiana
P20A	4561	Do subjects with obesity have poorer function, pain, and stiffness following total knee arthroplasty (TKA): A retrospective cohort of 1,158 patients one year after TKA	Baghbani-Naghadehi, Fatemeh
P20B	4024	Social physique anxiety predicts physical activity, but not sedentary time, in adults living with severe obesity	Black, Melissa
P21A	4538	Effects of familial and peer weight teasing on screen time in youth	Lamb, Megan
P21B	4085	Obesity-associated Microbial Dysbiosis and Adipose Tissue Dysfunction are More Severe in C57Bl/6 Male Mice Fed High Fat versus High Fat/High Carbohydrate Obesogenic Diets	Power, Krista A.
P22A	4014	Palatable Food Dampens the Long-Term Behavioral and Endocrine Effects of Juvenile Stressor Exposure but May Also Provoke Metabolic Syndrome in Rats	Ali, Eliza
P22B	4070	Determinants of health-related quality of life in Thai people living with obesity	Pramyothin, Pornpoj
P23B	4522	The effect of peer support on knowledge and self-efficacy in weight management: a prospective clinical trial in a mental health setting	Trottier, Emilie
P24A	4550	Supporting healthy weights for Canadian children and families: Evaluation of the scale-up of Healthy Together	Huisken, Anne
P24B	4556	Healthy and Happy: Creating and Evaluating a Catalyst to Improve the Health of University Students via an Online Training System	Mandich, Gillian E.
P25A	4031	Exploring the Effects of Telemedicine on Bariatric Surgery Follow-Up: A Matched Case Control Study	Rajaratnam, Thiyake
P25B	4118	Women's perceptions of gestational weight gain: a systematic review and thematic synthesis	Piccinini-Vallis, Helena
P26A	4527	The Role, Attitudes, and Actions of Employers Towards People with Obesity: Results from the ACTION Study Canada	Macklin, David
P26B	4510	Implicit Weight Bias as a Barrier to Effective Clinical Care: Results From the ACTION Study Canada	Vallis, Michael
P27A	4521	Bioimpedancemetry as an early diagnostic method of obesity in children and adolescents	Podchinenova, Daria
P27B	4526	Effects of the order of exercise on body composition, anthropometry, and physical fitness in obese adolescents	Júnior, Nelson N.
P28A	4535	Effects of training with body weight on body composition and cardiometabolic risk of obese adolescents	Júnior, Nelson N.
P28B	4018	Telephone-based cognitive behavioural therapy for post-operative bariatric surgery patients: A randomized controlled trial	Leung, Samantha E. Twells, Laurie
P29A	4551	The Impact of Bariatric Surgery on Health Care Costs: Six-year Results from the [Province] Bariatric Surgery Cohort Study	Twells, Laurie

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Poster Board #	Abstract #	Poster Title	Presenter(S)
P29B	4557	The use of pharmacotherapy for weight recidivism post-bariatric surgery	Rodriguez, Marcela
P30A	4143	Comparison of weight loss and comorbidity control in subjects with obesity with and without a psychiatric diagnosis after a six-month obesity program	Barakat, Maxime
P30B	4503	Naltrexone/bupropion is well tolerated and had no effect on serious adverse events in participants receiving antidepressant medication, including SSRIs	Blavignac, Jessica
P31A	4501	Naltrexone/Bupropion Extended-Release 32 mg/360 mg significantly improves liver enzymes in obese/overweight individuals with elevated liver enzymes	Blavignac, Jessica
P31B	4504	Extended-Release Naltrexone/Bupropion Induced Weight Loss is Independent of Nausea	Blavignac, Jessica
P32A	4506	Long-term efficacy of naltrexone/bupropion, administered as recommended in clinical practice	Blavignac, Jessica
P32B	4507	An integrated analysis of the effects of extended-release naltrexone/bupropion on food cravings and mood sub-scales of the Control of Eating Questionnaire	Shiau, Judy
P33A	4508	An integrated analysis of weight loss with combination extended-release naltrexone/bupropion therapy by BMI classification	Poddar, Megha
P33B	4509	Early achievement of significant weight loss with extended-release naltrexone/bupropion is associated with additional weight loss at 1 year	Blavignac, Jessica
P34A	4512	Effect on body weight of naltrexone/bupropion in overweight and obese participants with cardiovascular risk factors in a large randomized double-blind study	Harris, David
P34B	4520	Extended-release naltrexone/bupropion improves glucose control in individuals with prediabetes	Wharton, Sean
P35A	4543	Real-world clinical effectiveness of liraglutide 3.0 mg for weight management in Canada	Wharton, Sean
P35B	4544	Real-world persistence and weight loss with liraglutide 3.0 mg by obesity class: A post-hoc analysis of the real-world effectiveness study in Canada	Pedersen, Sue D.
P36A	4511	Key Factors Associated with Maintained Weight Loss in the ACTION Study Canada	Park, Elly
P36B	4030	Living with Osteoarthritis and Obesity: Hearing Stories of Patients' Healthcare Experiences	High, Sasha
P37A	4548	The Effect of a Low Carbohydrate High Fat diet and Intermittent Fasting on Weight Loss	Halili, Lyra
P37B	4114	A Pilot Study Evaluating the Effectiveness of the "5As of Healthy Pregnancy Weight Gain" Tool	Hale, Ilona

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Poster Board #	Abstract #	Poster Title	Presenter(S)
P38A	4026	Obesity Prevention in Infancy: What Do Parents Think?	Guimaraes, Roseane F.
P38B	4092	Higher physical activity level and sleep duration for girls who cumulate more years in the FitSpirit school-based intervention: Results of the 2017–2018 pilot project	Westphal, Greice
P39A	4528	Multiprofessional Obesity Treatment Program for adult patients with severe obesity: initial complaints and reports after the trial	Liubaoerjijin, Yilina
P40A	4049	The Impact of a Bariatric Simulation Suit on Functional Mobility in Adults without Obesity	

ABSTRACT DETAILS

O1.01

Natural History of Glucose Tolerance Across Childhood and Adolescence Among Youth Having a Parent with Obesity

Soren Harnois-Leblanc[1, 2, 3], Andraea Van Hulst[1, 4], Marina Ybarra[1, 5], Marie-Béatrice Saade[1], Tracie A. Barnett[1, 5], Marie-Ève Mathieu[1, 6], Jennifer J. McGrath[7], Angelo Tremblay[8], Gilles Paradis[9], Marie-Pierre Sylvestre[2, 3], Mélanie Henderson[1, 10]

1. Research Center of CHU Sainte-Justine, Montréal, QC, 2. School of Public Health, Université de Montréal, Montréal, QC, 3. Research Center of Centre Hospitalier Universitaire de Montréal, Montréal, QC, 4. Ingram School of Nursing, McGill University, Montréal, QC, 5. INRS Armand-Frappier, Laval, QC, 6. Department of Kinesiology, Université de Montréal, Montréal, QC, 7. Department of Psychology, Concordia University, Montréal, QC, 8. Department of Kinesiology, Université Laval, Québec, QC, 9. Department of Epidemiology, Biostatistics and Occupational Health, McGill University, Montréal, QC, 10. Department of Pediatrics, Université de Montréal, Montréal, QC

Objective: Describe the natural history of impaired glucose tolerance from childhood to late adolescence among youth with a parental history of obesity.

Methods: We used baseline (8-10 yo), 1st follow-up (FU1, 10-12 yo) and 2nd follow-up (FU2, 15-17 yo) data from the Quebec Adipose and Lifestyle Investigation in Youth (QUALITY) cohort of Caucasian children with a biological parent with obesity at recruitment (n = 338). The participants underwent an oral glucose tolerance test at each visit. Measures of plasma glucose were obtained at 0 and 120 min after ingesting 1.75g glucose/kg (max 75g). Impaired fasting glucose (IFG) is defined as fasting glucose >=5.6 but <7 mmol/L; impaired glucose tolerance (IGT) as 120 min glucose >=7.8 but <11.1 mmol/L; type 2 diabetes (T2D) as fasting glucose >=7 mmol/L or 120 min glucose >=11.1 mmol/L (ADA criteria).

Results: At baseline, 91% of children had normal glucose tolerance (NGT) whereas 9% presented either IFG/IGT or T2D. Among NGT children at baseline, 74% remained NGT throughout follow-up, 20% developed IFG/IGT, or T2D, with 6% presenting IFG/IGT at FU1 but reverting to NGT at FU2. Among children with IFG/IGT at baseline, 26% remained IFG/IGT and 74% reverted to NGT. Two children NGT at baseline developed T2D during follow-up. No participants reported receiving hypoglycemic agents between baseline and FU2.

Conclusions: We observed a substantial proportion of youth with transient IFG/IGT during puberty. Greater understanding of fluctuations in glucose tolerance status across adolescence are needed to inform optimal treatment strategies for youth with prediabetes.

O1.02

The Association Between Weight-Based Teasing from Peers and Family in Childhood and Depression in Childhood and Adulthood: a Systematic Review

Erica Szwimer[1], Fatima Mougharbel[2], Gary S. Goldfield[3, 2], Angela S. Alberga[1]

1. Concordia University, Montreal, QC, 2. University of Ottawa, Ottawa, ON, 3. Children's Hospital of Eastern Ontario Research Institute, Ottawa, ON

Introduction: Depression may be a psychological correlate of weight-based teasing from peers and/or family. However, it is unclear whether the association of weight-based teasing with depression differs by time (short-term vs. long-term), sex (males vs. females) and source (family vs. peers).

Objectives: The objectives of this systematic review were to (1) examine whether the frequency of weight-based teasing differs according to sex and source and (2) examine whether the association of weight-based teasing with depression varies according to time, sex and source.

Methods: A combination of keywords within three concepts: i) children and adults; ii) weight-based teasing source and: iii) mental health outcomes were searched in four databases (PubMed, PsychINFO, SCOPUS and Web of Science) for relevant articles. Cross-sectional and longitudinal original research articles were included, and studies were excluded if weight-based teasing and depression were not explicitly measured.

Results: The search yielded 3572 articles and 274 underwent full-text screening. A total of 20 studies were included in the analysis. Experiences of weight-based teasing occurred more frequently among girls than boys. Peers were a more common source of weight-based teasing compared to family. Weight-based teasing was significantly associated with depression in both the short and long-term. Weight-based teasing exhibited a greater association with depression in girls vs. boys and when it came from multiple sources than from either source alone.

Conclusion: Weight-based teasing from peers and family is associated with depression, and females are more psychologically vulnerable than males. Interventions are required to reduce weight-based teasing and its psychological effects.

O1.03

Adolescents' Recommendations for a Healthy Lifestyle: a Multi-centre, Qualitative Study

Maryam Kebbe[1], Arnaldo Perez[1], Annick Buchholz[2], Tara-Leigh F. McHugh[1], Shannon D. Scott[1], Caroline Richard[1], Michele P. Dyson[1], Geoff D. Ball[1]

1. University of Alberta, Edmonton, AB, 2. Centre for Healthy Active Living, Ottawa, ON

Objective: To explore recommendations from adolescents with obesity related to factors that could help them make and maintain healthy lifestyle choices.

Methods: We used purposeful sampling to recruit 13-17 year olds with obesity enrolled in multidisciplinary weight management clinics. Adolescents participated in individual, in-person, semi-structured interviews in English (Edmonton) or French (Ottawa) that we transcribed verbatim and analyzed using manifest content analysis.

Results: In total, 19 adolescents participated. Recommendations included: *(i)* establish parental support, but with limits, *(ii)* improve accessibility and availability of 'healthy foods', *(iii)* limit deceptive practices in food advertisements, *(iv)* lower the cost of 'healthy foods', *(v)* improve accessibility and availability of varied physical activity opportunities, and *(vi)* adopt later school start times.

Conclusions: Adolescents' recommendations highlighted factors at family, community, school and industry levels, most of which were beyond their control; these call for multi-level, multi-component interventions designed to help adolescents prevent and manage obesity.

O1.04

Parents' Views of and Recommendations Related to Parent and Child Involvement in Family-based Paediatric Obesity Interventions

Shauna M. Burke[1], Kristen C. Reilly[1], Daniel Briatico[1], Jennifer D. Irwin[1], Patricia Tucker[1], Erin S. Pearson[2]

1. Western University, London, ON, 2. Lakehead University, Thunder Bay, ON

Objective: In response to previous research in which parents have expressed a desire for greater involvement in childhood obesity interventions, our team designed and implemented "C.H.A.M.P. Families", a 13-week intervention targeting parents of children with obesity. The purpose of this study was to explore parents' experiences of and preferences related to the roles and involvement of parents and children in community-based childhood obesity interventions.

Methods: Parents who participated in C.H.A.M.P. Families were invited to take part in a focus group following the program. A semi-structured interview guide was used to elicit parents' perceptions of the program, as

well as considerations/recommendations for future programming. Data were analyzed using semantic and inductive thematic analysis methods. Strategies to enhance data trustworthiness were included throughout data collection and analysis.

Results: Twelve parents (7 mothers, 5 fathers/step-fathers) participated in one of two focus groups. Findings pertaining to participants' views of parent and child roles/involvement in C.H.A.M.P. Families and future childhood obesity programs fell within three general themes: (1) *parenting issues* (e.g., challenges associated with serving as the 'primary agent of change'); (2) *greater child involvement* (e.g., increased accountability); and (3) *additional information/strategies* (e.g., missing the 'how').

Conclusions: These findings shed light on several unique challenges and recommendations related to parent-only interventions, all of which will be outlined within the context of the broader family-based treatment literature. Specific considerations for designing and implementing childhood obesity interventions will be discussed.

O1.05

Parental Perceptions of a Parent-Only Childhood Obesity Intervention and Its Impact on Families

Kristen C. Reilly[1], Shauna M. Burke[1], Daniel Briatico[1], Jennifer D. Irwin[1], Patricia Tucker[1], Erin S. Pearson[2]

1. Western University, London, ON, 2. Lakehead University, Thunder Bay, ON

Objective: The primary objective of this study was to examine parents' perspectives of their experiences in, and impact of, a parent-only, community-based, group treatment intervention ("C.H.A.M.P. Families") for childhood overweight/obesity.

Methods: Parents who participated in C.H.A.M.P. Families were invited to join one of two focus groups immediately following the intervention. Focus groups were moderated using a semi-structured interview guide, audio-recorded, and transcribed verbatim. Transcripts were analyzed using thematic analysis in NVivo.

Results: Twelve parents (7 mothers, 5 fathers/step-fathers; M_{Age} = 41.5 years, *SD* = 5.2) representing 7 children (4 girls, 3 boys; M_{Age} = 9, *SD* = 0.82) with a BMI ≥ 85th percentile for age and sex participated in a focus group. Parents described several positive outcomes for *children* (i.e., dietary behaviours, physical activity, empowerment/autonomy); *families* (i.e., food choices, family dynamics); and *parents* (i.e., self-efficacy to support health behaviours). Parents also highlighted the *group environment* (i.e., sense of community, group support); *program content/materials* (i.e., expert speakers, resources, reminders/reinforcements); and *additional program benefits* (i.e., complimentary programming for children, home visits, program personnel) as highly impactful.

Conclusion: Participants reported positive perceptions of the program. The impactful programmatic features underscored by participants will be discussed as considerations for the design of future paediatric obesity treatment interventions.

O1.06

Review of a Family Centred Treatment Initiative to Improve Health Behaviours Stemming from a Partnership Between Public Health and a Hospital Based Program

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Stemming from a provincially funded chronic disease strategy, emerged an interdisciplinary partnership combining health promotion/disease prevention and a specialized paediatric obesity treatment program. This innovative partnership delivered accessible person-centred programming to address childhood obesity rates and improve health behaviours in the target community.

Four themed projects were implemented over 9-month terms beginning September 2015. Each theme integrated key factors associated with healthy weights in children and results included:

- Increasing Physical Activity and Family Play: 130 families attended 4 session workshops combining education on physical literacy and activity guidelines along with practical implementation ideas to change family health behaviour.
- Promoting Healthy Hydration: 15 workshops (217 children and caregivers) based on Sip Smart curriculum promoting water consumption and educating about health effects of sugar-sweetened beverages.
- Supporting Healthy Eating: 5 community workshops for parents of selective eaters (44 families) teaching principals of systematic desensitization, combining the SOS (Sequential-Oral-Sensory) and Ellyn Satter approaches to feeding.
- Reducing Sedentary Screen Time: 1-day conference for professionals and parents (150 registrants, potentially reaching 600) on reducing screen time and the 24-Hour Movement Guidelines.

This powerful collaborative project was successful in providing direct clinical intervention along with building capacity in the community through knowledge translation and reducing stigma. The program review will discuss the advantages of integrating prevention approaches in a clinical setting, resulting in more coordinated care plans, curriculum development and increased integration to the services available in communities. Challenges and lessons learned will be reviewed along with strategies to implement this collaborative partnership in other communities.

O1.07

Weight Management for Children with Disabilities: Exploring the Perspectives of Healthcare Professionals Working in Paediatric Weight Management Clinics in Canada

Amy C. McPherson[1, 2], Tasha Cate-Carter[1], Annick Buchholz[3], Mary Forhan[4], Arnaldo Perez[4], Jill Hamilton[2, 5], Louise Masse[6], Katherine M. Morrison[7], Geoff D. Ball[4]

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Objective: To explore the perspectives of healthcare professionals (HCPs) working in paediatric weight management settings regarding children with disabilities (CWD) and their families.

Method: Qualitative, semi-structured telephone interviews were conducted (Nov 2018 to Jan 2019) with registered HCPs working in paediatric weight management clinics in Canada. Descriptive thematic analysis was employed with verbatim interview transcripts.

Results: Nine HCPs (7 female, 2 male) participated, including a physician, an exercise counsellor, a physiotherapist, three registered dietitians and three social workers. Seven participants had ≤ 5 years of experience working in weight management and five had 6+ years of experience working with CWD.

Three themes were identified: *1) Learning on the job*: Participants reported a lack of formal training about childhood disability and weight management. Building capacity within clinical teams to work with CWD was considered critical; *2) Assumptions of suitability*: Although there was willingness to include children with disabilities in programs, there were concerns that the program would have to be considerably remodeled. Champions on the team often had to advocate for CWD's inclusion; *3) Existing clinic principles:* Existing clinic principles included using strengths-based approaches; focusing on wellness not weight; viewing families as experts; offering tailored and flexible treatment plans.

Conclusions: There may be assumptions about the suitability of pediatric weight management clinics for CWD and team champions play a key role

ABSTRACT DETAILS

in promoting inclusion. While additional team capacity-building could be beneficial, many principles already being applied in weight management clinics could be used to meaningfully engage CWD and their families.

O2.01

Development of India Report Cards on the Physical Activity for Children and Youth: an Integral Component of Cross-Country Evaluations of Policies, and Other Factors

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Objective: Research demonstrates that almost half of children and youth in India do not meet recommended physical activity and sedentary behavior guidelines. The 2016 India Report Card identified several gaps in evidence, including nationally representative data on active living. India's youth projected to be a major proportion of the world's workforce, evaluating active living in India has implications for the world economy. The 2018 Report Card addresses evidence gaps identified in 2016 using peer-reviewed and grey literature, as well as primary data obtained through partners.

Methods: Canadian-Indian research collaboration resulted in the formation of a Research Working Group, which determined key indicators; synthesized and analyzed evidence; and assigned grades based on consensus.

Results: The 2018 India Report Card assigned a grade B- for Active transportation and C- for Active play and Sedentary Behaviour. Community and Built Environment, overall Physical Activity Levels and Government strategies received a grade of D. Based on the grades assigned the active living, challenges faced by Indian children and youth could be attributed to lack of adequate political, social, and physical environmental support. *Active Healthy Kids India* has been established to obtain nationally representative data, and advocate for investments.

Conclusions: The 2018 India Report Card shows that although the vast majority of children and youth in India are not accumulating recommended levels of physical activity, there are encouraging signs of their participation in active transportation and active play—a phenomenon that needs to be explored further to facilitate more physical activity.

O2.02

Are There Differences in Physical Activity by Sex and Body Weight Status on School Days in Primary School Children?

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National recommendations for children's optimal health consists of ≥60 minutes of moderate-to-vigorous physical activity (PA) per day. Patterns of PA on school days are not well defined. It is also unclear whether body weight status influences children's PA patterns and their ability to adhere to recommendations in the primary school environment.

Objective: Explore PA patterns stratified by sex and body mass index (BMI) categories during school days.

Methods: 448 children (QUALITY cohort; 244 boys), aged 9.6±0.9 years, wore an accelerometer for 7 consecutive days. ANOVA was used to compare PA counts per minute stratified by sex and BMI category [Normal weight (NW): BMI <85th percentile, N=262; Overweight (OW): 85th≤ BMI <95th percentile, N=89; Obesity (OB): BMI ≥95th percentile, N=97].

Results: On average, 38% of children attained PA recommendations on school days (Boys: NW=66%, OW=44%, OB=25%; Girls: NW=24%, OW=16%, OB=16%). NW boys were more active 1) during morning classes (8-12pm) than OW (p=0.016) and OB (p=0.001) boys; 2) during lunch (12-1pm) than OW (p=0.002) and OB (p=0.000) boys; 3) during afternoon classes (1-3pm) than OB (p=0.017). There were no significant differences in PA at any point during school days for girls.

Conclusions: There are differences in boys' PA throughout school days based on BMI category, with NW boys being consistently the most active. The PA habits of girls at school are much more homogeneous regardless of BMI category. Research investigating these outcomes in secondary school is necessary to better understand the effects of weight status on PA in the school environment.

O2.03

Toward Trauma- and Violence-Informed Physical Activity and Obesity Prevention Programming

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Pregnant and/or parenting women (PPW) who are marginalized by poverty, racism, substance use, and trauma are at elevated risk of negative health outcomes in pregnancy and postpartum. Physical activity and prevention of excessive weight gain may be particularly relevant to address, given the high rates of intersecting issues of overweight/obesity, anxiety, depression, low self-esteem, and physical inactivity. Despite evidence of the benefits of physical activity for individuals who have experienced trauma, and although culturally safe and trauma-and violence-informed care is increasingly integrated in health care, few programs have focused on adapting these strategies in physical activity and obesity prevention programs. Through our community-based participatory research, we will demonstrate how we co-created a walking and wellness program in Vancouver's Downtown Eastside with 34 PPW. Over 90% of participant's report a history of substance abuse, and the vast majority of the women report experiencing depression, anxiety, and PTSD. Over 6-months, study participants attended a weekly walking program and introduction to new physical activity (boxing, yoga, self-defence, strength and conditioning and soccer). The objective of this presentation is to identify opportunities for integrating culturally safe and trauma-and violence informed physical activity and wellness programming/resources for women experiencing marginalization in Canada.

O2.04

The Effects of Resistance Training on Cognitive Function in Sedentary, Overweight Older Adults

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Older adults with type 2 diabetes (T2D) experience cognitive and brain decline (e.g., memory deficits associated with reduced hippocampal volume and activation) beyond normative aging. Consequently, older adults at-risk for T2D (i.e., overweight individuals) are at higher risk for neurocognitive decline, and intervening at this point may prevent or delay the onset of such decline. One promising lifestyle intervention that may improve neurocognitive function is exercise. For example, 6 months of aerobic training has been shown to improve cognitive function in overweight older adults, but studies examining whether resistance training (RT) can produce comparable results in this population is limited. Therefore, we conducted a RCT using a 6-month, thrice-weekly RT intervention in overweight older adults. Participants (aged 60-80; sedentary; BMI ≥ 25) were randomized into one of two groups: 1) Resistance training, or 2)

ABSTRACT DETAILS

Balance and tone (control). At pre- and post- intervention, we measured 1) memory performance using standardized neuropsychological tests, 2) hippocampal activation measured by fMRI BOLD signal during an associative memory task, and 3) hippocampal volume through high resolution T1 weighted structural imaging. Results show that 6 months of thrice-weekly RT in overweight older adults improves memory performance associated with increased hippocampal volume and activation, compared to BAT. In conclusion, our findings offer a feasible, cost-efficient lifestyle intervention strategy to improve cognitive and brain health in overweight older adults.

O2.05

Training and Implementation Support For a Childhood Healthy Weights Family-Based Healthy Living Program

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Objective: To assess the effectiveness of a train the trainer workshop and implementation support for a childhood healthy weights family-based program (ages 8 to 12; BMI for age > 85th percentile).

Methods: Program Facilitators from nine program sites attended a three day in-person training workshop in September 2018. The workshop addressed facilitation skills, providing opportunities for physical activity and physical literacy, activities to build food literacy, strategies to guide trauma-informed practice and positive mental health and the program curriculum. Program Facilitators completed a pre- and post-workshop survey to assess confidence on program content and satisfaction with the training provided. Programs commenced in October 2018. Ongoing Implementation support is being provided by centralized program staff. Data from support tracking and program facilitation interviews will be themed and presented.

Results: Program Facilitators increased their overall confidence in program curriculum areas and delivery of the content. Program Facilitators were confident in their ability to respond to participant needs in an effective, supportive, and non-judgmental and accepting way, and delivering group activities through a trauma-informed lens. In addition, 84% found the workshop extremely useful. The three most liked content areas were healthy eating, positive mental health and physical activity facilitation practices. Program Facilitators felt the program manual would make it easy for them to implement the program and identified support from program staff as an additional support required during implementation.

Conclusion: An intensive three day in-person training workshop increased the confidence of Program Facilitators to deliver the components of an early intervention family healthy living program.

O2.06

The Extent of Unhealthy Food and Beverage Sponsorship of Children's Sports Clubs in Ottawa

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Background: Food and beverage marketing has been identified as a determinant of childhood obesity. Sponsorship is a marketing technique used by the food industry to target children when they are engaged in sports. In Canada, no research has examined food and beverage company sponsorship of children's sports clubs.

Objectives: To identify and characterize the sponsorship of children's sports clubs in Ottawa and to determine the healthfulness of food and beverage sponsors.

Methods: The most popular children sports in Canada were first determined. Children's sports clubs in soccer, swimming, hockey, basketball and baseball were then identified in the Ottawa region. Data on sponsorship was collected from club websites between the months of September and December 2018. Using a nutrient profile model by Prowse et al., the healthfulness of food sponsors' product portfolios was categorized as healthy or less/least healthy. Descriptive statistics were tabulated using SPSS.

Results: A total of 70 sports clubs were identified, of which 38.6% had at least one food and beverage sponsor. Of the 341 sponsors identified across all clubs, 16.1% were food and beverage sponsors. Less/least healthy sponsors accounted for 85.5% of all identified food and beverage sponsors. Fast food restaurants accounted for 45.5% of all food and beverage sponsors while other restaurants accounted for 30.2% of food sponsors.

Conclusion: Food and beverage sponsorship of children's sports clubs is frequent and the healthfulness of most promoted products/brands is poor. Policymakers need to integrate sponsorship of sports clubs into food and beverage marketing restrictions targeting children.

O2.07

Explicit and Implicit Weight Bias Attitudes Among Medical Students

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Individuals affected by obesity are targets of prejudice and discrimination due to weight biases that exist in society, particularly among medical practitioners. Individuals living with obesity perceive weight biases and avoid or delay health care visits. This review summarizes 11 studies that examine both explicit and implicit weight biases among medical students. Medical students are an appropriate population for interventions that target weight biases as they represent the future of the medical profession. Studies indicated that medical students early in their education, exhibited implicit and explicit weight bias attitudes. Such weight biases persisted into third and fourth years of medical school, with evidence suggesting that explicit weight biases continued to increase. Virtual reality experiments demonstrated medical students were more likely to display negative attitudes towards individuals affected by obesity. During medical encounters, the weight status of patients, independent of other variables was enough to negatively impact students' perception of the clinical encounter. Acknowledging the negative impact weight biases have on individuals, we plan to conduct the first study in Canada, examining the prevalence of weight bias among medical students. This data will inform the development of interventions that raise awareness of and reduce weight bias among future physicians in Canada.

O3.01

Effect of a Standardized Psychiatric Intervention on Outcomes of a Public Multidisciplinary Obesity Program in Mexico City

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Objective: To assess the impact of a standardized psychiatric intervention within a public obesity program delivered to patients with mostly complicated obesity (EOSS 2 and 3).

ABSTRACT DETAILS

Methods. Retrospective analysis of outcomes from the registry of a six-month multidisciplinary obesity program incorporating a psychiatric intervention, compared with outcomes when no such intervention occurred. We compared 1) diagnosis of depression, anxiety, and binge eating disorder, 2) percentage weight loss (%WL), 3) attrition to the program.

Results: We included 152 subjects (89 without and 150 with psychiatric intervention) in the analysis. Diagnosis of depression (37% vs 28%, p=0.06), anxiety (21% vs 23%, p=0.65), and binge eating disorder (30% vs 29%) were similar, although prescription of psychopharmacological treatment was made in 55% of patients with the psychiatric intervention, compared with 25% before this intervention existed (p<0.001). These diagnoses were not discussed at the end of the program when no psychiatric intervention was available, and they reduced at the end of the program in subjects who received the psychiatric intervention (p<0.05). Depression remission was predicted by use of selective serotonin receptor inhibitors, and not by %WL or sex (p=0.007). There was no difference in %WL (5.2% vs 4.2%, p=0.07) with and without the psychiatric intervention, but attrition to the program was higher (6.4 vs 6.2, p=0.03).

Conclusion: Incorporating a psychiatric intervention improved mental health and attrition to a public obesity program in a population with high frequency of psychiatric diagnoses. Identification of best designs of such interventions aimed at those most benefitted is needed.

O3.02

Prospective Study of Attachment as a Predictor of Eating Pathology and Weight Loss Two Years After Bariatric Surgery

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Background: Bariatric surgery remains the most effective treatment for severe obesity. However, post-surgery outcomes are variable with respect to long-term weight loss and changes in eating-related psychopathology. Post-operative recurrence of eating behaviours, such as grazing or binge eating symptoms, have been associated with increased weight regain following surgery. An important variable affecting eating psychopathology in obesity is attachment (relationship) style, which can predispose an individual to a predictive response in treatment relationships and can influence emotion dysregulation and subsequent maladaptive coping. Given the limited literature on the effects of pre-surgery attachment style on post-surgery outcomes, this study seeks to examine the association between attachment style and eating pathology and weight loss outcomes 2-years post-bariatric surgery.

Methods: Patients were recruited between 2011 to 2014 as part of the Toronto Bariatric Surgery Psychosocial (Bari-PSYCH) study, conducted at the Toronto Western Hospital Bariatric Surgery Centre of Excellence. Three linear regression analyses were conducted with pre-surgery attachment style as predictors and binge eating symptoms, emotional eating, and percent total weight loss (%TWL) at 2-years post-surgery as outcomes.

Results: Avoidant attachment style was a predictor of binge eating at 2-years post-surgery (p = 0.010), while anxious attachment style was a predictor of emotional eating at 2-years post-surgery (p = 0.038). Attachment style did not predict %TWL at 2-year post-surgery.

Conclusion: This study demonstrates that attachment style is predictive of post-surgery eating pathology but does not contribute to long-term weight loss. It is possible that attachment style indirectly affects weight outcomes through post-operative eating psychopathology.

O3.03

Addictive Tendency Toward Food: a Largely Missed Major Cause for Obesity

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The study of addictive tendency toward food or food addiction (FA), to obesity is in early stages. Many fundamental questions regarding the role of FA in the development of obesity are not answered. A series of studies using the CODING study have been performed and many primary findings were made. A total of 652-752 volunteers recruited from the Newfoundland population participated. The Yale Food Addiction Scale was employed in the diagnosis of FA. Obesity was examined using a dual energy X-ray absorptiometry (DXA). Dietary nutrient intakes were evaluated from the Willett Food Frequency Questionnaires. Major discoveries were in the following aspects: 1) The prevalence of food addiction in the general population was 5.4% which means one in twenty adult Newfoundlanders fit the criteria of FA. 2) Food addicts were 11.7 (kg) heavier, 4.6 BMI units higher, and had 8.2% more body fat and 8.5% more trunk fat than controls. 3) Food addicts consumed more calories from fat and carbohydrates than persons with equivalent obesity status but without food addiction. 4) Serum levels of four hormones: TSH, TNF-α, amylin and prolactin, were significant lower or higher than in controls. 5) Two food addiction candidate genes: TIRAP and DRD2, were discovered in a genetic study using a combined approach of an exome sequencing and a genetic association analysis. 6) FA symptom counts are associated with metabolic syndrome. Our findings indicate that FA contributes to the development of obesity and FA may be an independent subgroup of the common form of human obesity.

O3.04

Predictors of Response to Telephone-Based Cognitive Behavioral Therapy in Bariatric Surgery Patients

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Bariatric surgery is an empirically supported treatment for severe obesity; however, it does not directly target underlying behavioral and psychological factors thatpotentially contribute to obesity. Mounting evidence supports the efficacy of Cognitive Behavioral Therapy (CBT) for improving eating psychopathology and psychological distress among bariatric patients, and telephone-based CBT (Tele-CBT) is a novel delivery method that increases treatment accessibility. This study aimed to identify demographic and clinical predictors of response to Tele-CBT among 79 patients who received Tele-CBT in three previous studies. Multivariate linear regression was performed to evaluate patient rurality index (urban or non-urban), and baseline binge eating (BES), emotional eating (EES), and depression symptoms (PHQ-9), as predictors of absolute change in BES scores. The predictors explained 35% of the observed variance (R^2= .348, F (4,57) =7.067, p<.05). Patient rurality index (β = .316, p<.05)and baseline BES score (β = .665, p<.001)were statistically significantly predictors of Tele-CBT response. Given the limited psychosocial resources available in many bariatric surgery programs, the findings suggest that Tele-CBT may be particularly beneficial for patients who binge eat and those residing in non-urban communities with limited access to other healthcare services.

ABSTRACT DETAILS

O3.05

An Overview of the Hat Trick Men's Health Intervention and Presentation of Key Findings

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My Role: Program Facilitator and Researcher

Project Funding: This UBC program is funded by the Canadian Cancer Society and is made up of a collaborative research team from UBC Okanagan, University of Victoria, Athabasca University and the University of Stirling, the Canadian Mental Health Association and the Canadian Men's Health Foundation.

Context: A healthy living program established by researchers at UBC's Okanagan campus is being expanded to include Victoria residents. It is an innovative healthy lifestyle program to help men increase physical activity, improve nutritional habits, mental fitness and enhance their social connectedness. Part of the attraction says Dr. Caperchione is the partnership with a local hockey team. In this case, the Junior A Victoria Grizzlies hockey team.

Delivery: This 12-week, face-to-face program will be delivered at the Q Centre, home of the Victoria Grizzlies. Each 90-minute session will be led by healthy lifestyle experts from the research team, Victoria Grizzlies' staff, and other community health professionals. During these sessions, participants will have the opportunity to be physically active as well as learn simple tips for healthy eating, active living and mental fitness.

Participants: Hat Trick is designed for men who fit all of the following criteria: Living in Victoria; 35 years or older; accumulate less than 150 minutes of physical activity per week; have a pant size greater than 38 inches; have a Body Mass Index over 25 kg/m

O3.06

Sustained Behaviour Change to Improve Obesity Outcomes: It's Time to Abandon Willpower to Appreciate Wanting

Michael Vallis

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The purpose of this study was to report on a nationally representative survey of the experience of Canadian adults regarding food cravings and the impact of these cravings on behaviour and quality of life. A total of 1532 respondents (16% of members of an online panel emailed a an invitation and link) completed a nationally distributed survey. Almost two-thirds of the sample reported experiencing cravings, with women being more likely to report cravings than men. Of those with cravings, 83.1% reported moderate or strong cravings. Cravings impacted eating behaviours and quality of life, especially for those with strong cravings. Cravings were associated with being bored, emotional or watching TV. Few people experienced distress because of lack of access to help and rates of interest in being guided by healthcare professionals were low. These results reinforce the notion that eating behaviour may differ from other behaviors in the there is a strong drive to eat that is difficult to control for many individuals. Behavioural interventions targeting healthy eating should be developed to address this construct of drive to eat.

O3.07

Combination Extended-release Naltrexone/Bupropion Causes Significant Weight Loss Without Worsening Psychiatric Symptoms

Jessica Blavignac[1], Roger McIntyre[4, 5, 6], Amy Halseth[2], Preston Klassen[3], Maxime Barakat[1]

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Alterations in mood and depression are important considerations for the use of weight loss medication and were assessed in a 56-wk, placebo (PBO)-controlled Phase 3 study of extended-release naltrexone/bupropion 32 mg/360 mg (NB) for weight loss in combination with an intensive behavior modification program. Individuals with serious psychiatric illness, pharmacologic treatment for psychiatric disorder within 6 mo, or Inventory for Depressive Symptoms-Self-Rated (IDS-SR) score ≥30 (scale range 0-84) were excluded. Subjects (N=793; BMI 36.5 kg/m^2; age 45.8 y; 90% female) were randomized 3:1 to NB or PBO. Baseline psychiatric characteristics did not differ between NB and PBO: IDS-SR 5.9±4.9; 14.4% depression history; 3.3% anxiety history. In a modified ITT-LOCF analysis, change in weight at wk 56 was -9.3±0.4% (NB) and -5.1±0.6% (PBO; p<0.001). Change in IDS-SR score did not differ between NB and PBO (0.09 NB vs 0.00 PBO). Psychiatric adverse events (PAEs) were similar for both groups (25% NB vs 22.5% PBO; NS[BJ1]). Depression was reported less frequently with NB than PBO (0.5% NB vs 2.5% PBO; p=0.03). Most frequent PAEs were insomnia (8.7% NB vs 6.0% PBO; NS), anxiety (5.1% NB vs 3.5% PBO; NS), and depressed mood[BJ2] (1.9% NB vs 4.0% PBO; NS). There were no serious PAEs and no difference in discontinuation due to PAE (4.5% for NB and PBO). Suicidal ideation was reported with PBO (n=2) but not NB[BJ3] . In this study, NB produced meaningful weight loss without worsening psychiatric symptoms, with less depression vs PBO.

O4.01

The Extent and Nature of Nutrition and Sports-Related Corporate Social Responsibility Initiatives of the Canadian Food Industry: What are the Implications for Public Health?

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Objective: To characterize the nature and targeted demographic of nutrition and sports-related corporate social responsibility (CSR) initiatives of large food and beverage companies in Canada.

Methods: In 2016, the webpages, social media pages and corporate reports of 40 large food and beverage companies were reviewed to identify their nutrition and sports-related CSR initiatives. Initiatives were then categorized by type (as either philanthropic, education-oriented or research-oriented) and by targeted population (as either targeted at children under 18 years or not).

Results: Overall, 63 nutrition and sports-related CSR initiatives were identified. Most initiatives (n=45) were considered philanthropic in nature and included support to school food programs and other organisations addressing short-term food security (n= 19; of which 15 were child-targeted) and support of sports teams, tournaments and athletes, among other sport-related initiatives (n=26; of which 12 were child-targeted). Eleven nutrition-based education-oriented initiatives were identified (1 was child-targeted). These included industry participation in a Nutrition Facts education campaign led by Health Canada (n=3), nutrition information on company websites (n=6), and the development of branded nutrition educational resources for teachers (n=1). Four initiatives involved funding research (none of which were child-targeted).

ABSTRACT DETAILS

Conclusion: The presence of nutrition and sports-related CSR initiatives may be undermining public health in Canada. Beneficiaries of food industry support should consider the unintended consequences and potential conflict of interests that arise from their relationship with food and beverage companies whose business interests lie in selling and marketing unhealthy foods.

O4.02

Dietary Patterns Associated with Metabolic Health in French-speaking Adults from the Province of Quebec - Analysis from the PREDISE Study

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Background: Dietary patterns (DP) were derived using seventeen food subcategories from Canada's Food Guide (CFG) and their association with the metabolic syndrome (MetS) was assessed in a cohort of French-speaking Quebecers.

Methods: DPs were obtained by the reduced rank regression method using dietary intakes of 1002 adults (50% women, mean age: 43.3 y) with either MetS-related nutrients (fibre density, magnesium and sodium intake (DP1)) or MetS-related biomarkers (HDL-cholesterol, triglycerides and fasting insulin (DP2)) as intermediate markers. Prevalence of the MetS was assessed based on the following risk factors: elevated blood pressure, fasting glucose, triglycerides and waist circumference and low HDL-C concentrations. The association between DPs and MetS was examined by comparing the first and the fifth quintile of DP score using multivariate logistic regression analysis.

Results: DP1 was characterized by a high intake of whole fruits, whole grains, green and orange vegetables, nuts and legumes and low intakes of red and processed meat, refined grains, sugar-sweetened beverages and "other foods" (not recommended by CFG). DP2 was characterized by low intakes of whole fruits, all types of vegetables and yogurt, and high intakes of red and processed meat, refined grains, sugar-sweetened beverages and "other foods". Higher DP1 scores and lower DP2 scores were associated with lower odds of suffering from the MetS (DP1: OR = 0.36; 95% CI 0.19-0.66; DP2: OR = 0.22; 95% CI 0.12-0.39).

Conclusion: These results suggest that specific recommendations targeting subcategories of CFG food groups should be formulated in order to favour a better cardiometabolic health.

O4.03

Healthy Eating Index Scores are Associated with Adiposity in Children Born Very Low Birth Weight

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Background: Very low birth weight (VLBW, <1500 g) infants are at increased risk of obesity. Reasons are unknown, but limited evidence suggests poor-quality diets as a predisposing risk factor.

Objective: To determine associations between Healthy Eating Index-2010 (HEI-2010) scores with body composition in children born VLBW.

Methods: In this 5.5-year follow-up (NCT02759809) to an in-hospital randomized clinical trial that remained blinded, children had height, weight, and body composition (air displacement plethysmography, skinfolds) measured. Two 24-hour dietary recalls were collected with ASA24-Canada 2016. Associations were tested using multivariable regression models with maternal BMI (≥30 kg/m^2) as a preplanned interaction.

Results: Mean (SD) age of 158 participants (53% males) was 5.6 (0.2) years, BMI *z* score was -0.3 (1.2), and body fat was 16.2% (6.7). Mean (SD) birth weight and gestational age were 1013 (264) g and 27.9 (2.5) weeks, respectively. Average (SE) HEI-2010 score was 62.2 (1.3) out of 100 and 27% of children had poor-quality diets (scores <50). HEI-2010 scores were inversely associated with total adiposity and BMI *z* score, but only in children whose mothers had obesity. A 10-point increase in child's HEI-2010 score (e.g. zero to ≥1.5 cups fruits/vegetables) was associated with 0.5 SD (95% CI, -0.7, -0.2) reduction in BMI *z* score.

Conclusions: Given their double risk for obesity, due to maternal obesity and being born VLBW, improving children's diet quality may be an important strategy to break the intergenerational cycle of obesity. Interventions targeting this high-risk group are needed. Funded by CIHR (FHG129919) and SickKids Restracomp.

O4.04

What Health Aims and Topics are More Popular for Teens and Parents Using a Health App?

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Purpose: In the context of developing Aim2Be (an app that support youth and their families in adopting healthy eating, physical activity, screen time, and sleep behaviours), this study qualitatively described what content appealed most to teens and parents.

Methods: 301 teens (13-17yrs) and one of their parents (46 ± 7yrs) were given access to an early version of Aim2Be for 4.5 months. Web analytics were used to determine which of the 16 health topics teen users (N=294) engaged with and completed and which of the 23 articles were most often consulted by parents.

Results: The top five aims set by teens were: Drop the pop (34%), Be a mindful eater (18%), Be a veggie fan (17%), Be sugar smart (14%) and Be well-rested (14%). Teens reported highest rates of completion for these aims with the exception of Be well-rested as Break your addiction (screen time) was the fifth most completed. Of the parents who accessed the articles (90%), the following topics were most popular: learning about the app and aims (51%), parenting (37%), supporting family health behaviours (37%), and drinking water (37%).

Conclusions: Overall, teens were most interested and most successful in making health behaviour changes related to healthy eating. However, to curtail childhood obesity results demonstrate the importance to engage teens in physical activity and screen time topics. As parents were highly engaged in articles related to promoting healthy family behaviours, future interventions should support parents to engage their teens in family meals, physical activity and screen time limits.

O4.05

Exploring the Relationship Between Weight Management, Weight Perception, and Dietary Quality Among Canadian Young Adults

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Objective: Weight management efforts are prevalent among young adults, but little is known about their impact on overall dietary quality. Attempts to manage weight are typically driven by weight perception, which may also uniquely affect overall diet. The objective of these analy-

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ses was to explore associations between weight change intention and weight perception and dietary quality.

Methods: Data were drawn from a national cohort study of young adults (ages 16 to 30 years) recruited in five Canadian urban centres. The Healthy Eating Index 2015 (HEI-2015) was used to characterize diet quality among participants who completed a self-administered 24-hour recall (n=2,040). Regression analyses were conducted to investigate the relationship between weight change intention and weight perception, separately, and diet quality.

Results: The total HEI-2015 score averaged 52 of 100 possible points. Of the sample, 16% reported trying to maintain their weight, while 16% were trying to gain and 44% were trying to lose weight. Two-thirds perceived their weight as "just about right". Trying to gain or maintain weight were each associated with higher HEI-2015 scores compared to not trying to manage weight. Weight perception and HEI-2015 scores were not significantly related. Respondents who were younger, male, non-White, and who had missing height and weight data or were characterized as having "obesity" had lower dietary quality scores.

Conclusions: Among young adults, weight change intentions may be more salient in predicting overall dietary quality than weight perceptions, with implications for public health initiatives that strive to improve the diets of Canadians.

O4.06

Developing Foodbot Factory: a Case Study on the Importance of Iterative Development and Usability Testing for mHealth Interventions

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Objective: Despite the benefits and growing popularity of mobile health (mHealth) interventions, methodologies for their preliminary evaluation must be established. Using Foodbot Factory, a mHealth intervention developed for food literacy education, the objective of this research is to demonstrate the effectiveness of iterative user testing and evaluative methods for mHealth apps.

Methods: An interdisciplinary research team of educators, game developers, and public health researchers developed a mixed-methods user testing approach to evaluate Foodbot Factory. This included semi-structured observation of users during gameplay which focused on identifying usability problems; qualitative interviews which assessed the users learning by analyzing for themes, and; quantitative questionnaires that assessed the user experience through average usability scores.

Results: Five separate user testing sessions were conducted. Semi-structured observation successfully identified usability problems with the game's tutorial and game controls, both of which were modified in the following iteration. Feedback from interviews enhanced the quality of content by identifying areas where users had difficulty understanding presented concepts. A comparison between the first and last testing sessions showed the effectiveness of our approach. Specifically, users were more likely to report that the app was fun (83% vs. 88%), and that the goals were clear (83% vs. 94%), during the last testing session.

Conclusion: The use of mixed-methods during iterative user testing sessions for a mHealth intervention improved the acceptability and quality of Foodbot Factory. Similar methods should be employed in the development of future mHealth interventions to enhance their quality, relevance, and uptake.

O5.01

Male Partners of Subfertile Couples in Which the Spouse Is Obese Display Adverse Weight and Lifestyle Associated with Reduced Sperm Quality

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Objectives: 1) to assess the spousal concordance between male and female anthropometric measures and lifestyle habits within couples; and 2) to assess the associations of male anthropometric measures and lifestyle habits with seminal characteristics.

Methods: Cross-sectional study including 97 heterosexual couples with infertility in which women were obese and seeking fertility treatments. Lifestyle habits and anthropometry were assessed for both partners. Seminal characteristics were available for 94 men. Spearman's and Pearson's correlation coefficients were used to evaluate associations. Independent male predictors of the Total motile sperm count (TMSC) were determined using stepwise multiple logistic regression.

Results: There was a significant spousal concordance for the % of fat mass (r=0.21, p=0.043), leisure activities (total daily expenditure: r=0.26, p=0.012; time spent doing sedentary activities: r=0.36, p<0.001), and overall nutritional quality (r=0.28, p=0.005). Moreover, BMI (p=0.020), daily consumption of fruits & vegetables (p=0.046) and sleeping hours (p=0.088) were independent predictors of the spouse's TMSC (model: adjusted-R^2=0.10, p-value=0.006).

Conclusion: Male partners from couples with infertility in which the woman is obese tend to display similar adverse lifestyle habits and anthropometric profiles as their spouse. Additionally, male's BMI, nutritional habits and sleeping behaviour could significantly impact their reproductive potential. Therefore, our results suggest that male partners of infertile couples should be implicated in the lifestyle intervention that is already recommended for their spouse affected by obesity.

O5.02

Breastfeeding and Childhood Obesity: a Cost Saving Analysis

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Background: Studies have suggested that breastfeeding may be protective against the development of childhood obesity with additional long term benefits to both mother and baby. In 2015, a meta-analysis of over one hundred studies reported a 22-30% reduction in the risk of developing childhood obesity, when infants were exposed to longer durations of breastfeeding. Despite this reported benefit, and the recommendations by the World Health Organization, rates of exclusive breastfeeding (EBF) remain low, where only 31% of Canadian infants are EBF to 6 months.

Objectives: To conduct a Canada-wide study to determine estimated cost savings associated with increased EBF rates to six months (e.g., by 25%, 50%, and 70%). A second objective is from a knowledge user perspective (e.g., mothers, decision-makers, policy makers) to examine barriers and incentives to both changing behaviors and increasing investment in preventative health behaviors.

Methods: This study will be conducted from a societal perspective taking into account direct, indirect and environmental costs. Cost savings will be estimated using a framework that includes: an incidence-based disease model; estimates of lost productivity from time off work; reductions premature death; and an assessment of the environmental impact of not breastfeeding.

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Conclusions: In Canada, we have high rates of childhood obesity and low rates of breastfeeding. Breastfeeding is a modifiable intervention that with targeted investment has the potential to reduce childhood obesity and significantly improve the health of mother and baby. Investing in breastfeeding may be one of the most cost-effective interventions that a society can invest in overtime.

O5.03

Associations Between Breastfeeding and Insulin Dynamics Among Children with a Parental History of Obesity

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Objective: We examined associations of breastfeeding initiation and duration with insulin dynamics in children, and assessed for mediation by adiposity.

Methods: Data stem from the QUALITY cohort, consisting of 630 children with at least one obese parent, recruited at age 8-10 years. Parents reported breastfeeding duration. Insulin sensitivity (IS) was assessed by the Matsuda Index and insulin secretion by the ratio of the AUC of insulin to glucose at 30min and at 120min post 2-h oral glucose tolerance test. Percent fat mass was assessed by DXA. Multivariable linear regressions were adjusted for sex, birth size for gestational age, puberty, age, socio-economic status, and fat mass.

Results: Following adjustment for covariates except for percent fat mass, children who were ever (vs never) breastfed had a 23% (95% CI: 11.7; 34.1) higher Matsuda Index. Further adjusting for percent fat mass decreased the estimate to 11% (95% CI: 2.1; 19.7). Percent fat mass mediated 52% of the beneficial effect of breastfeeding on IS (Sobel's test $p<0.001$). We did not find a dose-response relation between breast-feeding duration and IS: compared to those never breastfed, Matsuda Index was higher by 13% in those breastfed < 3 months ($p=0.01$), and not different in those breastfed 3-6 months ($p=0.12$) or > 6 months ($p=0.11$), nor was breastfeeding associated with insulin secretion.

Conclusions: This study lends some support to the protective effect of any breastfeeding, but not of its duration, on IS in children. Promoting and supporting breastfeeding may contribute to mitigate metabolic consequences in at risk children.

O5.04

Exercise Effects on C-Reactive Protein During Pregnancy: a Systematic Review of Randomized Controlled Trials

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Purposes: Elevated concentrations of C-reactive protein (CRP) in pregnant women with obesity have been associated with adverse maternal outcomes. Increased exercise training has shown to decrease circulating levels of CRP. The aim was to review the literature to investigate the maternal exercise effects on CRP responses during pregnancy.

Methods: Eligible randomized controlled trials (RCTs) were identified from MEDLINE, EMBASE, Web of Science, Scopus, and SportDiscus up to November 2018. The main MeSH terms were: "exercise", "pregnancy", and "C-reactive protein". Inclusion criteria were RCTs conducted on pregnant women who were engaged in any type of exercise compared to usual prenatal care and reported CRP values. The study selection and data extraction were carried out by two independent reviewers (PROSPERO CRD42016039618).

Results: A total of 340 publications were found of which four RCTs (n = 779) were included. Three interventions included pregnant women with obesity. The interventions included walking, resistance exercises and encouragement to increase daily step count. The exercise intensity ranged from light to moderate for three to seven days per week. Due to inconsistencies among studies for data reporting, a meta-analysis was not performed. Compared to the control group, three interventions were successful in lowering CRP concentrations with exercise and one was not.

Conclusion: Exercising three to seven times per week for at least 30 minutes at light to moderate intensity may lower CRP concentrations in pregnant women with obesity. These responses indicate a trend towards a protective effect of exercise and physical activity on inflammation during pregnancy.

O5.05

Overview of Obesity Prevention During Infancy

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Many factors contributing to obesity appear to have their origins during the critical period of early development in the first year of life when behavioural, neuroendocrine and epigenetic changes result in programming of a weight "set point" which is difficult to reverse once established. Only a small number of prospective studiesassessing the impact of interventions during infancy have been published to date, most of which have shown some positive effect on parent behaviour or toddler weight. In addition to the traditionally identified risk factors for obesity such as limiting caloric intake and increasing activity, responsive parental feeding style is emerging as another important modifiable factor that may be amenable to intervention during infancy. In this overview we will 1) review the research to date on obesity prevention during infancy. 2) present our current research and 3) discuss future directions for obesity prevention during infancy.

Our research has examined this issue from a perspective of parents' perceptions and found that guidance on responsive feeding is more acceptable to parents than traditional prescriptive messages. We are currently conducting a pilot intervention looking at a responsive feeding intervention during infancy. Using the popular "feeding roles" messaging, the intervention involves antenatal recruitment, one-to-one education at public health nurse well-baby visits, monthly text messaging, printed handouts, posters and messaged takeaways. The outcomes of interest for the pilot are 1) feasibility, 2) changes in parent knowledge, attitudes and behavior at 18 months and 3) rate of infant weight gain at 12 and 18 months.

O5.06

Mobile Health Applications for Improving Lifestyle Behaviours During and After Pregnancy: Environmental Scan

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Background: Mobile health (m-health) has become increasingly popular for pregnant women and new mothers in supporting information needs and lifestyle behaviour self-management. Given the rapid development of new technologies, an environmental scan is needed to identify m-health applications (apps) in this area and whether their clinical and cost-effectiveness is being assessed to ascertain their economic value for policy makers.

Objective: The objective of this environmental scan is to identify m-health lifestyle behaviours apps available for pregnant and post-partum women and to understand how they are being evaluated and

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implemented. The following research questions will be used to guide the study:

- What new m-health lifestyle behaviour apps are available/in development for pregnant and postpartum women?
- What is the efficacy/effectiveness of these mhealth apps?
- What is the cost effectiveness of these m-health apps?
- What is the patient/user perspective on the value of these apps?
- How are these apps being integrated into primary care? Are they being reimbursed?

Methods: Published literature will be obtained by searching MEDLINE, CINAHL, EMBASE , Cochrane Library, PsycINFO, grey literature, and hand searching of relevant reference lists. Eligibility criteria will include original articles, assessing health and economic outcomes, patient and provider satisfaction, published in English.

Results: The number of articles screened, extracted, and reviewed will be provided. The anticipated results will provide an overview of available m-health apps in pregnancy and the postpartum period.

Conclusions: The clinical and economic value of the presented health technology apps will provide insight into their implementation and scalability for policymakers and funders.

O5.07

Birth Outcomes of Women with BMIs > 30kg/m2 Enrolled for Care at Freestanding Birth Centers

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Objective: Pregnancies recorded in the American Association of Birth Centers Perinatal Data Registry were analyzed to document the perinatal outcomes of women with a pregravid BMI $\geq$ 30kg/m^2 compared to women with normal BMIs. All women received primary antenatal, intrapartum and postpartum care by midwives in freestanding birth centers in the U.S.

Methods: Comparisons between primiparous women with obese (n=1084) and normal BMIs (n=5881) were made using Student's t test and chi-square test or Fisher's exact test. Analysis was by intent to treat.

Results: During antenatal care 70.55% (n=4149) of normal weight women and 60.42% (n=655) of obese women had no complications including gestational diabetes or hypertensive disorders. There were no significant differences in intrapartum complications (including prolonged stages of labor, hypertension, bleeding or chorioamnionitis) between women of normal BMIs and obese BMIs (34.07% and 37.08%, p =0.26). Most women had no postpartum complications.. Significantly more women with obese BMIs were transferred to hospitals for birth than women of normal BMIs (31.54% vs. 20.96%). Once transferred to the hospital, labor outcomes did not differ significantly for induction or augmentation of labor or rates of cesarean birth. Few newborns had complications with no differences between maternal BMI groups.

Conclusions: Two-thirds of women with obese BMIs without comorbid disease can initiate prenatal care and labor in freestanding birth centers and have outcomes that are as good as women with normal BMIs. These findings are consistent with research on women with BMIs $\geq$ 36kg/m^2 giving birth in birth centers in the United Kingdom.

O6.01

Ain't Your Grandma's Obesity Anymore

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It is increasingly understood that obesity is a complex condition. Many modern changes to our lifestyle and environment have been linked with increased risk for obesity. Much attention has been placed on diet and physical activity, however, there are several less studied culprits that are also biologically plausible contributors to the rise in obesity. These include environmental pollutants, medication use, sleep, light exposure, prenatal programming and even weight loss history. Interestingly, there is also evidence that obesity may be becoming more benign over time. This may be in part due to the effectiveness of medication, particularly for individuals with obesity, but it is also possible that these same secular changes in the etiology of obesity may have also changed how obesity related with health risk. Just as diet and physical activity may independently influence cardiometabolic risk associated for a given level of obesity, there is research indicating that some of these modern obesegenic factors may contribute to the variations in health risk associated with obesity. In fact, these factors are associated with both better or worse health for a given body mass index depending on the factor in question. Thus, this presentation will review emerging obesegenic factors and how these novel secular factors may have altered how obesity relates with health risk.

O6.02

Perceptions of Barriers to Effective Obesity Management in Canada: Results from the ACTION Study

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Obesity is a chronic disease often not recognized or optimally managed in clinical practice. The ACTION study investigated perceptions, attitudes and barriers to weight management in persons with obesity (PwO), healthcare providers (HCPs) and employers in Canada.

Adult PwO (body mass index ≥30 kg/m^2), HCPs and employers completed online surveys between August 3 and October 11, 2017.

Respondents totalled 2,545 (2,000 PwO, 395 HCPs, 150 employers). Most PwO (60%), HCPs (94%) and employers (71%) considered obesity a chronic medical condition; 74% of PwO believed that obesity impacts overall health, versus 77%, 75% and 67% for stroke, diabetes and cancer. Many PwO (74%) believed weight management was their responsibility, and few (21%) thought it was the responsibility of HCPs to help.

While PwO (55%) reportedly knew how to manage their weight, only 1/10 reported maintaining ≥10% weight reduction for >1 year. Despite low success rates, 'improvements in eating habits' (PwO 38%; HCP 63%) and 'being more active' (PwO 39%; HCP 54%) were ranked as most effective for long-term weight management. Only 34% of HCPs considered consulting a nutritionist/dietitian effective for weight management; 6% of PwO shared this belief. Only 6% of HCPs believed current medical guidelines were effective for obesity management.

Many PwO reported knowing how to manage weight, yet few reported long-term success. PwO and HCPs shared the belief that 'eat-less-move-more' was the most effective approach. All groups may benefit from an improved, collaborative, understanding of obesity.

The study was sponsored by Novo Nordisk A/S and registered with ClinicalTrials.gov [NCT03235102].

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O6.03

Measuring and Enhancing Readiness in Healthcare Providers in Obesity and Chronic Disease Management

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Obesity, like other chronic diseases, requires healthcare providers and healthcare systems to support chronic disease self-management. Yet few healthcare providers are trained in behaviour change skills needed to support self-management. In order to support self-management, healthcare providers need to change their practice to be more consistent with behavior change theories and evidence. However, there is little attention paid to the fact that this involves behavior change for the healthcare provider. To be consistent with models of behavior change, assessing and enhancing readiness to support self-management is critical to fostering this change in practice by healthcare providers. The authors will present data from their research program on assessing and enhancing readiness in healthcare providers. Methods and data on how to assess readiness in healthcare providers will be presented. In addition, ongoing research on an intervention to increase readiness in healthcare providers (i.e., Professional Readiness Program) will be presented. The authors will present the theory underlying the Professional Readiness Program and data from an ongoing trial measuring the effectiveness of this program to increase readiness in healthcare providers to use behaviour change skills. Given the importance of encouraging self-management in obesity, it is critical to recognize this represents a change in behaviour for healthcare providers and to apply our knowledge of behaviour change to support healthcare providers.

O6.04

Designing a Conversation Tool to Better Support Primary Care Obesity Management

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Background: The WHO has issued a call to implement *people-centred* strategies to health services. This makes personalized care a priority. Obesity management in primary care is often embedded in other clinical presentations. Achieving collaborative encounters in obesity management is difficult. *The challenge is how to support constructive engagement to address the unique needs of each individual.*

Objective: To collaboratively identify patients' needs and expectations for obesity management and design tools to support collaborative engagement and create personalized care plans.

Methods: We used human-centred design methods to develop three co-creation workshops. The workshops allowed patients, physicians, interdisciplinary health professionals, and researchers to work together to examine existing tools and express opinions on what works, why, and how they could be improved. This was followed by 5 observations of patient-provider encounters to evaluate the tools' performance.

Results: The co-creations helped us better understand 1) what the tools should achieve, 2) the importance of language, and 3) the importance of supporting the provider in identifying patient strengths We also discovered that planning action can be overwhelming, it requires coaching but also jointly exploring and prioritizing.

Conclusion: The development of shared-decision making tools that go beyond risk communication requires different development processes. Addressing the issue of what care plan would be best for patients requires understanding and exploring how to help, what could help, and why this could help. This can be achieved through thoughtful and empathetic deliberation. The tool can help resolve a health issue, but cannot solve it.

O6.05

Supporting People with Obesity: Specialist Community Occupational Therapy

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This student project proposes an innovative occupational therapy service that could meet the complex physical and mental health needs of people with obesity.

In Great Britain more money is being spent on treating obesity-related problems than on police, fire services and judicial system combined. In 2016, obesity was diagnosed in 26% of adults in England, putting this condition at the forefront of public attention due to its' cost and impact on services.

The need to save money can provide Occupational Therapy (OT) with opportunities to expand the scope of practice, specifically, in areas of long-term condition management. Obesity limits people's ability to participate in occupations. Literature review and personal correspondence with internationally known experts revealed that enabling occupation at people's current level of ability produced much more positive health and well-being outcomes including improved weight management, community involvement and role fulfilment.

Whilst existing services concentrate on weight loss, the focus of the proposed service is to enable occupational participation and engagement at the current functional ability. Interventions would incorporate core and extended OT skills such as activity analysis, energy conservation, anxiety management, vocational rehabilitation and adaptation. A community-based service could maximise the effectiveness of interventions relating to lifestyle change and move away from the limited medicalized approach.

Enabling meaningful occupations improves well-being which could impact both health and social care outcomes. It can prevent, delay and reduce care costs as well as improve management of long-term conditions, reduce hospital admissions and use of specialist health care services.

O6.06

Development of a Type 2 Diabetes Prevention Toolkit: Perspectives of Healthcare Professionals

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Objectives: Pediatric obesity and type 2 diabetes (T2D) are complex chronic conditions that are currently not managed effectively within our health system. The demand for specialized clinics exceeds currently available resources and treatment of pediatric obesity and T2D often falls to primary care healthcare professionals (HCPs), who report feeling ill-equipped to effectively manage them. In response to this, two tertiary care centres were tasked to develop a toolkit of resources to support HCPs in pediatric weight management and T2 prevention. The goal of the present study was to gain a better understanding of the perspectives of HCPs on managing pediatric obesity, including any barriers and to integrate their needs into the development of the toolkit.

Method: Two 90-minute focus groups were conducted following a semi-structured interview guide. Participants were n = 10 HCPs and included family physicians, pediatricians, pediatric fellows, and nurse practitioners. Responses were transcribed and coded into themes using qualitative thematic analysis.

Results: Three broad themes emerged (with subthemes included in each) regarding barriers to weight management in primary care: 1) barriers related to HCPs (e.g. discomfort discussing weight), 2) barriers related to

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patients/families (e.g. managing family dynamics), 3) barriers related to environment and society (e.g. poverty/limited resources).

Conclusions: Findings will assist in tailoring resources to HCPs to improve quality of service to patients with childhood obesity and their families.

O6.07

Weight Loss ≥ 20% with Liraglutide in Individuals with BMI ≥ 50 kg/m2

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Objective: Individuals with very high BMI (≥ 50 kg/m^2) are often excluded or underrepresented in studies. Clinical trials have shown liraglutide to have a larger weight loss effect in individuals with BMI 35-39.9 kg/m^2 (-9.3% at 56 weeks) than in individuals with a BMI ≥ 40 kg/m^2 (-7.4%). Here we characterize weight loss with liraglutide in individuals with a BMI ≥ 50 kg/m^2 who experienced ≥ 20% weight loss on liraglutide.

Methods: Retrospectively, we identified patients enrolled in a Canadian tertiary care centre between October 2015 and November 2016 who had an initial BMI of ≥ 50 kg/m^2 and acheived ≥ 20% weight loss using liraglutide. We evaluated (1) median weight loss and BMI change, (2) time to lowest weight on liraglutide, and (3) weight loss before liraglutide initiation.

Results: We identified 7 patients who met criteria for study entry. Median BMI prior to starting liraglutide was 61 kg/m^2 (IQR 49.8-70.8 kg/m^2). The median weight loss was 24.3% (IQR 22.7-26.2%) and the median BMI decrease was 15.8 kg/m^2 (IQR 12.2-17.1 kg/m^2). The median time to lowest weight was 336 days (IQR 283-405 days). Prior to starting liraglutide, the median weight loss was only 2.8 kg (IQR 0.25-14.4 kg).

Conclusions: There are individuals with BMI ≥ 50 kg/m^2 who can achieve ≥ 20% weight loss with liraglutide. Further studies are needed to determine what proportion of these patients reach this outcome.

O7.01

Microbial Dysbiosis, Intestinal Dysfunction, and Adipose Tissue Inflammation are Attenuated in Mice with Obesity fed High-Fat Diet Supplemented with Cooked Navy Beans

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Objective: To determine if introducing fiber-rich navy beans in established high-fat diet (HFD)-induced obesity improves intestinal health (microbiota and epithelial barrier defences) and reduces visceral adipose tissue (AT) inflammation.

Methods: Male C57BL/6 mice consumed a HFD (60% fat as kcal) for 12 weeks to establish obesity and then either continued the HFD or were switched to an isocaloric HFD supplemented with 15% cooked navy beans (HF+B) or a low fat control diet (LFD, 10% fat as kcal) for an additional 8 weeks.

Results: HF+B-fed mice exhibited beneficial changes in the fecal microbiota community structure (increased abundance of anti-obesogenic *Akkermanisa muciniphila* and carbohydrate fermenting *Prevotella* and *S24-7*) and activity (increased production of short chain fatty acids, SCFAs), which was associated with increased ileum and colon mRNA expression of the SCFA signaling receptors *GPR41* and *GPR43* versus HFD. Aspects of epithelial and mucus barrier function were improved in the colon and ileum of the HF+B group (versus HFD) including increased mRNA expression of i) tight junctional complex components (*ZO-1, Occludin, JAMA* and/or *Claudin-2*), ii) colonic mucin (*Muc2*), and iii) anti-microbial and/or immunomodulatory defenses (ileum: α5- and β2-defensins; colon: *Reg3*γ and *Relm*β). Compared to HFD, the epididymal AT inflammatory phenotype was improved in the HF+B group including increased responsiveness to SCFA signaling (*GPR109a*) and decreased STAT3 activation and inflammatory cytokine/chemokine tissue expression (IL-6, MCP-1 and MIP-1α).

Conclusion: Bean supplementation in established obesity can improve the intestinal microbiome, intestinal barrier dysfunction, and AT inflammation, thereby attenuating the severity of the inflammatory phenotype in obesity.

O7.02

Acute Effects of Almonds on Postprandial GLP-1 Concentrations and Subjective Appetite Sensations in a Sample of Men with Type 2 Diabetes

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Objective: This study aimed to assess the effects of almonds on postprandial glucagon-like peptide-1 (GLP-1) concentrations and subjective appetite sensations in a sample of men with type 2 diabetes (T2D) using isocaloric macronutrient-matched meals.

Methods: In this randomized crossover study, 7 men with T2D completed two experimental visits during which a control meal (white bread, butter, cheese) and a test meal (white bread, almonds) were ingested. Both meals contained the same amounts of energy, available carbohydrates, total lipids, and proteins. Blood samples were collected in fasting state as well as 15, 30, 60, 90, 120, and 240 minutes postprandially for quantifying serum GLP-1 concentrations. Subjective appetite sensations were assessed using 100mm visual analog scales at the same timepoints. Two-way repeated measures ANOVAs were used to assess differences between meals across all timepoints.

Results: Participating men were aged 63.9 ± 2.5 years, had been diagnosed with T2D for 9.6 ± 2.4 years and were all using Metformin. Participants took significantly more time to eat the test meal, as compared to the control meal (p=0.026). The test meal was associated with higher postprandial GLP-1 concentrations (p=0.044), decreased hunger (p=0.032) and increased fullness (p=0.014). Desire to eat and prospective food consumption did not significantly differ between meals.

Conclusions: This study documents the acute effects of almond ingestion as part of a meal and suggests that the macronutrient subtypes (e.g., dietary fiber and monounsaturated fatty acids) they contain could have a beneficial impact on postprandial GLP-1 concentrations and appetite sensations in men with T2D.

O7.03

Combining Prebiotics with Exercise: a Post-Exercise Dietary Strategy for Regulating Appetite

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Background: Evidence suggests that exercise, despite being recommended for weight management, is not effective for weight loss in part due to increased compensatory energy intake (EI). Enhancing the effectiveness of exercise for weight loss may be accomplished through dietary strategies that suppress appetite and EI post-exercise. Prebiotics have been shown to provide health benefits including modulation of hormones that induce satiety, and thus may be beneficial in decreasing compensatory EI post-exercise.

Objective: To determine if the consumption of a prebiotic post-exercise increases satiety and decreases compensatory EI after an acute bout of exercise.

ABSTRACT DETAILS

Methods: In a randomized crossover study, individuals (BMI>23kg/m^2, 18-50yrs) received one of three recovery beverages: 1) water control (WC); 2) sweetened-milk (SM); or 3) sweetened-milk + 20g prebiotic (SMP) after completing a 45min (65-70% VO_{2max}) exercise session at ~19:00hrs. EI was assessed through fasted *ad libitum* breakfasts the morning after exercise and 3-day food diaries. Blood samples were taken to assess satiety hormones and visual analogue scales measured subjective appetite. A repeated-measures ANOVA with an LSD post-hoc determined differences between trials.

Results: Preliminary analysis indicates that *ad libitum* EI at breakfast and fasted hunger was significantly higher with WC than SMP ($P<0.05$). SMP tended to have lower EI relative to SM. Appetite ratings after the *ad libitum* breakfast were the same, revealing satiety was increased to a similar extent despite the differences in EI.

Conclusions: The addition of a prebiotic to a post-exercise meal may aid in decreasing compensatory EI after an acute bout of exercise.

O7.04

Methylphenidate (MPH) Increases Odour Threshold with Associated Decreases in Appetite and Food Palatability

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Objectives: Methylphenidate (MPH), a dopamine reuptake inhibitor, increases brain dopamine levels. Previous research implicates dopamine in the regulation of appetite, obesity, and smell function, but associations are unclear. The objectives of the study are to examine the impact of MPH on odour threshold, food palatability, and appetite in youth and adults (age>16) with obesity (BMI>29.9).

Methods: In a randomized, double-blind study, 12 participants (age 28.9±6.7) (BMI 36.1±4.5) were randomly assigned to receive 60 days of MPH (0.5mg/kg) (n=5) or placebo (n=7) twice daily. Participants came in-lab for screening, baseline, and final visits. Appetite and palatability (Visual Analogue Scale (VAS)), and odour threshold (Sniffin' Sticks) were measured at baseline and final visits.

Results: From baseline to final visit, there was a significant increase in odour threshold (mean, SD) in the MPH group (6.3±1.4, 9.4±2.1) as compared to placebo (7.9±2.3, 7.8±1.9) ($p=0.029$). Odour threshold was significantly negatively associated with prospective food consumption ($r = -0.68$, $p=0.02$), hunger ($r = -0.66$, $p=0.02$), desire to eat ($r = -0.65$, $p=0.02$), and standardized breakfast palatability ($r = -0.58$, $p=0.05$), and positively associated with fullness ($r = 0.76$, $p=0.004$). MPH had larger correlations between odour threshold and appetite measures than those on the placebo.

Conclusions: MPH use was associated with increased odour threshold (improved smell), which was associated with decreases in appetite and food palatability. This finding that MPH, and ostensibly increased brain dopamine levels, may improve olfaction may represent a novel mechanism to control appetite that warrants future study.

O7.05

Lack of Association between Dietary and Circulating Amino Acids in Middle-Aged Women

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Circulating levels of leucine, isoleucine and valine (the 3 branched-chain amino acids, BCAAs) as well as that of glutamate (a by-product of BCAA catabolism) have been shown to be associated with obesity. The pathophysiology of this association is not yet completely understood, but dietary amino acid intake has been suggested to play a role.

Objective: To evaluate the relationship between dietary and circulating amino acids, focusing on BCAAs and glutamate.

Methods: We studied a sample of 46 middle-aged women, 11 of which were obese (BMI ≥30 kg/m^2). Dietary intakes were assessed by a 3-day food record. Fasting plasma amino acids were measured with the Biocrates p180 kit using LC/MS.

Results: Mean age (±SD) was 47.4±5.3 years and median (interquartile range) BMI was 25.9 (24.2-29.6) kg/m^2. Compared to lean/overweight women, obese women had significantly higher circulating levels of leucine (141.03±10.11 vs 99.76±5.67 µmol/L, $p=0.0009$), isoleucine (64.74±4.80 vs 48.20±2.69 µmol/L, $p=0.0043$), valine (210.55±16.44 vs 156.71±9.22 µmol/L, $p=0.0065$) and glutamate (52.36±6.04 vs 34.71±3.39 µmol/L, $p=0.0143$). Dietary intakes of these amino acids were not significantly different between lean/overweight and obese women (all $p>0.05$). Furthermore, dietary amino acid intakes and circulating levels were not significantly correlated (leucine: $r=0.12$, $p=0.43$; isoleucine: $r=0.17$, $p=0.25$; valine: $r=0.24$, $p=0.11$; glutamate: $r=0.02$, $p=0.87$).

Conclusion: Obese women had higher circulating BCAA and glutamate levels compared to their lean or overweight counterparts, but this difference could not be explained by differences in the dietary intake of these amino acids.

O7.06

Dietary Fructose Induces Synaptic Plasticity at NPY Neurons

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The increase in dietary fructose in the North American diet parallels the rise in obesity, and contributes to weight gain and metabolic dysregulation. The brain plays a critical role in regulating feeding and energy balance, and is undoubtedly involved in fructose-mediated obesity. However, it remains unknown how fructose consumption affects the brain. Activation of neurons expressing neuropeptide Y (NPY) in the arcuate nucleus drives feeding and weight gain. In addition, these neurons are sensitive to energy states and dietary composition. We hypothesized that these neurons may be, in part, responsible for the physiological changes observed with high fructose diet (HFrD) feeding.

We fed mice a 60% HFrD for up to 8 weeks and found that HFrD feeding selectively increases caloric intake, body fat, serum leptin and insulin levels, and leads to impaired glucose tolerance compared to dextrose and chow-fed controls. These results confirm that dietary fructose leads to symptoms of metabolic syndrome.

To examine the effects of fructose consumption in the brain, we performed *ex vivo* electrophysiology recordings from NPY neurons of HFrD and chow fed mice. We determined changes in the excitability of the neurons and the glutamatergic inputs to the cell. We found that fructose increases excitatory inputs at NPY neurons. This effect is reversible with short term HFrD feeding but will persist if the diet is continued.

These findings indicate that the brain is plastic and sensitive to fructose consumption. This synaptic plasticity may promote the obesogenic effects of dietary fructose.

O8.01

Patient Preferences Towards Characteristics to Be Used in Prioritizing Patients for Bariatric Surgery: a Discrete Choice Experiment

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ABSTRACT DETAILS

Objective: Clinical practice guidelines recommends bariatric surgery as a management strategy for adults with severe obesity (BMI 40kg/m^{2}or more, or BMI 35-40kg/m^2 with comorbidities). Eligible patients access surgery on a first-come-first-served basis and wait times can be several years. This study quantifies patient preferences towards attributes that could be evaluated when prioritizing patients for surgery.

Methods: A discrete choice experiment was conducted via email with a sample of Canadian adults living with obesity. Six relevant attributes were identified through focus groups. Respondents completed 12 choice tasks and demographic and weight loss related questions. A multinomial logit model was used to estimate preference weights of each attribute.

Results: A total of 515 individuals completed the survey. 59% were female, 97% made previous weight loss attempts, and 5% had bariatric surgery. On average patients prioritized individuals with: significant problems with daily activities over none (Odds Ratio (OR) 4.41; 95% Confidence Interval (CI) 4.31 to 4.52); three existing cardiovascular co-morbidities over none (OR 4.24; 95% CI 4.12 to 4.36); extreme impact on mental health over no impact (OR 3.73; 95% CI 3.64 to 3.84); six "other" co-morbidities over none (OR 3.43; 95% CI 3.31 to 3.55); waiting five years over one year (OR 1.59; 95% CI 1.46 to 1.68); and a BMI of 60 over 40 (OR 1.52; 95% CI 1.43 to 1.62).

Conclusion: All six attributes were important to patients in the prioritization for bariatric surgery. However, the number of cardiovascular co-morbidities and the impact on daily activities were considered most important.

O8.02

Implementation of the Primary Care Pathway for the Prevention and Management of Obesity (3PMO) within Calgary Foothills Primary Care Network (PCN)

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The complex nature of obesity management poses a great challenge for primary care. There are presently no systems-integrated tools available to help primary care providers or multi-disciplinary team members (MDTM) to adequately screen and assess patients with obesity and determine their readiness for patient appropriate interventions.

A Primary Care Pathway for the Prevention and Management of Obesity (3PMO) was developed, beginning with the provider identifying an appropriate patient and completing a brief readiness assessment. Then, as appropriate, an electronic medical record-integrated Personalized Weight Assessment (PWA) is completed by a physician or MDTM and a management plan is developed.

Mixed-methods evaluation, including a patient activation assessment using the validated PAM® tool, and provider and patient surveys was completed. The PAM® assesses knowledge, skill and confidence in managing one's own condition. A single point increase in PAM® score can result in a 2% improvement in medication adherence and a 2% decline in hospitalization. For 58% of patients, the PAM® score increased immediately after completing the PWA (T1–T2) and increased further for 59% at 8-12 weeks post PWA (T3). Ninety-one percent of patients have agreed that after their PWA, they feel more confident in their ability to understand and manage their health concerns. Providers agree the PWA provides the framework to better meet patient's needs.

This novel pathway and assessment tool is providing a useful framework to support team-based care of obesity. The 3PMO is presently offered in five, multi-physician practices in the CFPCN and is continuing to be studied and expanded.

O8.03

The Effect of Methylphenidate on Resting Energy Expenditure, Thermic Effect of Food and Physical Activity Energy Expenditure in Individuals Living with Obesity: A Pilot Study

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Objectives: Most weight loss medications target reductions in energy intake while neglecting energy expenditure, a critical predictor of weight loss/regain. This pilot study examined the effect of short-acting methylphenidate (MPH) on resting energy expenditure (REE), thermic effect of food (TEF), physical activity energy expenditure (PAEE), and how changes in energy expenditure relate to changes in body composition in individuals with obesity.

Methods: This study was a randomized, double-blind, placebo-controlled two-parallel arm study. Ten participants, mean aged 28.8±6.9 yrs. (5 M,5 F), were randomized to receive either MPH (0.5mg/kg) (n=5) or placebo (n=5) twice daily for 60 days. Participants' REE and TEF (indirect calorimetry), PAEE (Actical) and body composition (DEXA) were measured at baseline, and day 60.

Results: From baseline to day 60, MPH showed about a ~7% increase in relative REE kcal/kg/day (18.5±1.9, 19.7±2.5), compared to a 5% decrease (19.1±2.3, 18.2±2.0) in placebo, translating to a moderate-to-large effect size (Cohen's d=0.75, p=0.187) favouring MPH. From baseline to day 60, there were no group differences on changes in TEF or PAEE. Changes in relative REE were inversely correlated with changes in body weight (r=-0.599,p=0.067) and body fat (r=-0.524,p=0.12). These associations were much stronger in the MPH group.

Conclusions: Our data indicate that MPH administration may lead to a meaningful increase in relative REE and these changes were associated with reductions in adiposity among individuals with obesity. Future inquiry is needed to better determine the effect that MPH may have on relative REE and its potential to promote weight loss and maintenance.

O8.04

Breast Adipose Tissue Glucocorticoid and Estrogen Levels: Link with Breast Cancer Prognostic Markers and Adiposity

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Objective: Adipose tissue is an important site for extragonadal steroid hormone biosynthesis as it expresses P450 aromatase, 11Beta-hydroxysteroid dehydrogenase type 1 and several 17Beta-hydroxysteroid dehydrogenases. The contribution of steroid hormones produced by adjacent adipose tissue for the progression and survival of breast tumors

is unknown. The purpose of this study was to quantify estrogens (estradiol/estrone) and glucocorticoids (cortisol/cortisone) in breast adipose tissue and to assess their relationships with adiposity and breast cancer prognostic markers in both health and disease.

Methods: We developed a liquid chromatography-tandem mass spectrometry (LC-MS/MS) method to determine estrogen and glucocorticoid concentrations in adipose tissue. Mammary adipose tissue was collected during surgery in pre- and postmenopausal women undergoing partial mastectomy for treatment of breast cancer (n=17) or reduction mammoplasty (n=6).

Results: Women with a positive estrogen and progesterone receptor (ER+/PR+) tumor had higher estradiol levels than women with a ER-/PR- tumor ($p<0.05$). Linear model analyses showed that estradiol, cortisone and cortisol were negatively associated with tumor size (*Beta* ranging from -0.58 to -0.76, $p<0.05$). The cortisol to cortisone ratio was negatively associated with tumor stage (*Beta*=-0.64, $p<0.05$). Relationships between glucocorticoids and prognostic markers remained significant after adjustment for body mass index (BMI). Estradiol levels were lower in women with a BMI>25 kg/m^2 than those with a BMI<25 kg/m^2 ($p<0.05$).

Conclusions: We were able to reliably quantify estrogens and glucocorticoids in breast adipose tissue from both healthy women and women suffering from breast cancer. Those findings allow further exploration of their roles in the etiology of breast cancer.

O8.05

Sarcopenic Obesity in Adults with Knee Osteoarthritis

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Sarcopenic obesity, a body composition phenotype of low muscle mass with high fat mass, is emerging as an important condition in health care. It is associated with greater disability and poorer surgical outcomes, including mortality, in a variety of clinical populations. However this condition has not been thoroughly investigated in patients with knee osteoarthritis (OA). This study aimed to explore the prevalence of sarcopenic obesity in adults with knee OA, and describe its influence on clinically relevant outcomes.

Methods: Patients with end-stage knee OA and a body mass index (BMI) ≥30 kg/m^2 were included. Body composition was measured in n=151 adults (59% female, age 65.1±7.9 years) using dual-energy x-ray absorptiometry (DXA). Outcomes included physical function (assessed using gait speed, hand grip strength and six minute walk test), and patient-reported pain, function, and quality of life (assessed using the Western Ontario and McMaster Universities Osteoarthritis Index/WOMAC and EuroQol Foundation EQ-5D).

Results: One quarter (27%) of the cohort was identified as having sarcopenic obesity, with a higher prevalence in males compared to females (37% *vs* 20%, $p=0.022$). The group identified as having sarcopenic obesity had impaired physical function (lower gait speed, $p=0.024$, and walking endurance, $p=0.009$), and reported more problems with self-care activities (44% *vs* 25%, $p=0.021$).

Conclusion: Sarcopenic obesity imparts additional limitations on physical function and quality of life in patients with knee OA, independent from the influences of OA and obesity alone. Screening methods that go beyond BMI are needed to assess and identify sarcopenic obesity in clinical OA management.

O8.06

The Effect of Age and EOSS Obesity Stage on Weight Loss

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Objective: The prevalence of obesity increases with age, affecting 33% of adults 60-79 in comparison to 20% of those 18-39. The purpose of this study is to examine the influence of age and obesity severity/complication burden (as estimated using the Edmonton Obesity Staging System - EOSS) on weight loss.

Methods: Patients attending Wharton Medical Clinic, a weight and diabetes management clinic with multiple locations across Southern Ontario, were categorized into age categories: millennials (age<35), generation x (35≤age<50), baby boomers (≤50age<70), and silent generation (age≥70); and EOSS stages: 0 to 3. General linear model and logistic regression analysis were performed to determine the influence of EOSS across age categories.

Results: 13,865 patients were included. A greater portion of older patients achieved ≥5% weight loss compared to younger (silent generation=37.1%, baby boomers=34.9%, generation x=28.1%, and millennials=25.4%, $p<0.0001$). EOSS significantly affected the association between age and weight loss ($p= 0.03$). Likelihood of achieving ≥5% weight loss differed across age and EOSS categories ($p<0.0001$). In the silent generation, there was an inverse association between EOSS and odds of attaining ≥5% weight loss, while there were no differences were among millennials. Generation x and baby boomers with EOSS 1 and 2 were most likely to achieve ≥5% weight loss.

Conclusion: Older patients who are healthier are more likely to achieve clinically relevant weight loss in a weight management clinic than older patients with more serious obesity related comorbidities. However, there is no clear association between EOSS and weight loss among millennials.

O9.01

Can Small Changes Produce Long Lasting Results? a Review of the Small Changes Behavioural Intervention Approach for Weight Management

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Rates of overweight and obesity continue to rise in Canada and worldwide. Traditional behavioral interventions geared at weight loss have demonstrated success in producing initial weight loss through large changes to caloric intake and physical activity. Although these changes result in steep initial weight loss, the major challenge is weight loss maintenance post-treatment. In response to these challenges, a small changes approach to weight management that encourages individuals to make modest changes to diet and activity has been proposed as an alternative approach to treatment. Theoretically, making small changes in nutrition and activity are enough to affect overall energy balance without requiring major lifestyle changes or promoting feelings of deprivation that ultimately impact long-term adherence. A recent review of the literature conducted by our team has shown the primary focus across multiple small changes studies was that the goals for each participant were modest and self-selected. Across 12 reviewed articles (assessing 1720 participants), mean weight loss across 3- and 12-month assessments were -2.5kg and -2.96kg, respectively. Importantly, the small changes approach has demonstrated its ability to achieve initial weight loss with either weight maintenance or minimal weight regain across 12 months and 24 months. The purpose of this presentation is to review the theoretical basis of the small changes approach, discuss the evidence base for this intervention, and identify defining features of this intervention with recommendations for implementation.

ABSTRACT DETAILS

O9.02

The Adult Eating Behaviour Questionnaire in an Adult Canadian Sample: Factor Structure and Associations with BMI

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Background: The Adult Eating Behaviour Questionnaire (AEBQ) measures 8 appetitive traits compared to the valid Three Factor Eating Questionnaire (TFEQ-R18v2) that measures only three. This study aimed to confirm the factor structure of the AEBQ and to test for concurrent validity against TFEQ-R18v2.

Methods: Participants recruited from the PERFORM Centre (Montreal, QC) completed an online survey measuring the AEBQ, TFEQ-R18v2, demographic and anthropometric measures (n=534). Confirmatory factor analysis (CFA) was used to test for alternative factor structures of the AEBQ [original 8-factors (Food Approach subscales: Hunger, Food Responsiveness (FR), Emotional Overeating (EOE), Enjoyment of Food; and Food Avoidance subscales: Emotional Undereating (EUE), Food Fussiness (FF), Slowness in Eating (SE), Satiety Responsiveness (SR)) versus excluding Hunger (7-factors)]. Correlations between the AEBQ and both the TFEQ-R18v2 and BMI were explored.

Results: The majority of participants (39.5±16.4 y; BMI 24.9±5.1) were white (89.9%) females (75.7%) with some college education (96.4%). CFA revealed the 7-factor model was a better fit. TFEQ-R18v2 Emotional Eating and Uncontrolled Eating scores were positively correlated with all AEBQ Food Approach scores and negatively correlated with all Food Avoidance subscales except for FF, supporting the concurrent validity of the AEBQ. BMI was positively correlated with EOE ($r=0.30$, $p<0.001$) and FR ($r=0.12$, $p=0.004$) and negatively associated with all Food Avoidance scores (EUE: $r=-0.28$, $p<0.001$; SE: $r=-0.19$, $p<0.001$; SR: $r=-0.12$, $p=0.004$) except with FF.

Conclusion: The results support the use of the 7-factor AEBQ for self-reporting appetitive traits in adults, and provide further evidence for the association of these traits with BMI.

O9.03

Elements of Successful Mobile Apps and Serious Games to Instill Lifestyle Change

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Dietary and exercise changes impact obesity. More permanent and comprehensive lifestyle interventions impact diet, enhance physical activity and achieve weight loss. Unfortunately, lack of time and limited skills of primary care providers hinder their ability to intervene and to counsel their patients effectively. Intervention failure is also due to a poorly defined behavior change strategy for dietary and physical activity change, limited ability to adhere to the strategy, and weak integration of the strategy into day-to-day functioning.

Technological solutions are delivering less expensive, more consistent, and permanent solutions that are equally effective as face-to-face interventions for weight loss. Attention to user experience, builds immersion, provides interactivity, establishes habits, and improves confidence in the ability to achieve a lifestyle change.

The presentation reviews studies of smartphone-based applications and serious digital games to promote a more healthy lifestyle including decreased sedentary activity, increased exercise, and dietary change. Electronically delivered, comprehensive interventions along with self-monitoring of weight, food intake, and physical activity are more effective when they follow certain standards. Effective solutions guide the user in defining individual goals (e.g., walking 2x a day for 4 days a week) and developing a tailored action plan (e.g., walking every morning with a friend, increasing salad at lunch, completing a standing exercise) to enhance habit formation. Successful solutions empower the user with the information, resources, motivation, autonomy, and near and longer-term feedback to complete the action plan. The ability to share strategies and successes with family and friends through social media also enhances success.

O9.04

Which Characteristics Favour Successful Weight Loss? The CIRCUIT Program Experience

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Objective: To identify baseline characteristics that are associated with a reduction in body mass index (BMI) among youth enrolled in a healthy lifestyle intervention.

Methods: CIRCUIT is a lifestyle intervention using personalized strategies to increase physical activity (PA) among youth aged 5-18 years at risk for cardiovascular disease. Baseline characteristics included sociodemographics (age, sex, ethnicity, maternal education, family structure), psychosocial factors (from questions regarding maternal support to be active), and anthropometrics (BMI z-score (zBMI)). The program was considered to be successful if participants had a reduction in zBMI of at least 0.2 SD over a period of one year. The final study sample of 170 participants, 46% female, had a mean baseline zBMI of 3.3. Differences in baseline characteristics between the success and non-success groups were compared using chi-squared- and t-tests.

Results: Participants in the successful group (n=79), on average, were younger (10.0 vs 12.2 years, $p<0.01$) and had a higher baseline zBMI (3.5 vs 3.2, $p=0.07$), compared to participants in the non-successful group (n=91). They also were more likely to report having mothers who enjoyed doing PA (54% vs 27%, $p=0.02$) and would plan PA for outings (48% vs 22%, $p=0.01$). No other group differences were observed.

Conclusion: CIRCUIT was more likely to be successful among participants who were younger, had a higher zBMI and had greater maternal support for PA. In order to optimize success in lifestyle interventions for youth, future research exploring the underlying mechanisms of the observed associations is needed.

O9.05

Tackling Weight-Based Stigma in the Classroom: Developing Capacity for Weight-Sensitive Instruction among University Students and Instructors

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Objective: Weight bias and discrimination are highly pervasive; however, there is a severe lack of weight bias education in health education settings. This gap underscores the need for initiatives to equip students with the knowledge and tools to actively tackle weight bias in their personal and professional lives.

Methods: Two separate online educational modules (for students and instructors) were developed and implemented in Fall 2018. Modules

included content related to weight bias and discrimination, as well as person-first language and use of non-stigmatizing images. Brief surveys evaluated the module for engagement, influence on attitudes, and usability of the online tools among undergraduate students.

Results: In the first month of implementation, 87 undergraduate students completed the survey. Most respondents found that the module was easy to use (95.6%), easy to understand (96.7%), and "just the right length" (73.3%). The majority agreed that the module provided useful information about weight bias and stigma (84.4%) and that it taught them skills applicable to their current or future work environments (70.0%). Overall, about half of respondents agreed that the online module challenged their personal perceptions about weight bias and stigma, and one third agreed that their views towards individuals with overweight and obesity have changed.

Conclusions: Preliminary results indicate that the online module is easy to use and understand, and that it changed many students' perceptions of weight bias and weight stigma. Potential next steps for this pilot project include integration of the module into more courses offered at this and other academic institutions.

O9.06

Weight Bias: A Predictor of Supporting Public Health Policies

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Introduction: The 2016 Obesity Senate report proposed policy recommendations to address obesity in Canada. Public support of these policies and their correlates such as weight bias (i.e., negative attitudes towards individuals based on their size) have not been examined.

Objective: (1) To assess public support of the Obesity Senate policies recommendations, and (2) to examine the association between weight bias and policy support.

Methods: Canadian adults (N=1003; 51% female; BMI=27.3±7.0 kg/m^2) completed an online survey assessing their weight bias and support of the policy recommendations. Weight bias was measured with the Anti-Fat Attitudes Questionnaire in three subscales: Willpower, Fear of fat, and Dislike. Support of the policy recommendations was measured on 4-point Likert scales. Logistic regressions (support/strong support vs oppose/strongly oppose) were conducted after adjusting for age, race, gender and income.

Results: Support of the policy recommendations ranged from 53% to 90%. Greater willpower was a predictor of support for 10 policies (e.g. changing infrastructure to encourage physical activity, OR=1.28, CI=1.14-1.43, p<0.01). Greater fear of fat was a predictor of not supporting two policies (e.g. mandating the use of front-of-package nutrition labelling, OR=0.82, CI=0.73-0.94, p=0.003). Greater dislike was a predictor of support for 3 policies (e.g. taxation of sugar and artificially sweetened beverages, OR=1.19, CI=1.08-1.31, p<0.01).

Conclusion: Weight bias is associated with Canadian support of obesity prevention policies. Future studies should assess weight bias attitudes of stakeholders involved in the creation and implementation of public health policies and examine the influence of weight bias reduction interventions on policy support.

PK1.01

An Evaluation of Voluntary Commitments Made by Major Food Companies in Canada to Improve the Nutritional Quality of their Products

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Objective: Canada's food supply is high in nutrients of public health concern, contributing to non-communicable disease risk, including obesity. The healthfulness of the food supply is shaped by food company policies and practices. This study aimed to identify and evaluate voluntary commitments of major food companies in Canada to improve the nutritional quality of their products.

Methods: Twenty-three top packaged food and beverage companies were selected, representing a total of >50% of the Canadian market share in these sectors. A systematic policy scan was conducted of company and industry association websites, corporate reports and media releases to identify commitments to reduce saturated fat, trans fat, sodium, added sugars and/or energy levels in companies' products. Commitments were evaluated in terms of comprehensiveness and specificity.

Results: Of 23 companies, 35% (n=8) published ≥1 ongoing reformulation target(s), while 57% (n=13) reported recently achieved reformulation targets. Eleven of these companies were multinational food manufacturers, and 2 were Canadian retailers offering private-label brands. Companies with ongoing or recent reformulation initiatives commonly targeted added sugars (n=13) and sodium (n=12); fewer commitments were identified for trans fat (n=10), saturated fat (n=8) and energy (n=8). Most commitments were not time-bound and/or targeted a limited range of products for reformulation.

Conclusions: Nearly half of the leading food companies in Canada currently report limited or no action to improve the nutritional quality of their products. In the absence of industry-wide efforts to implement specific, time-bound targets for reducing nutrients of concern in the food supply, government intervention may be warranted.

PK1.02

The Influence of Sugar Taxes and Front-of-Package Nutrition Labels on Consumer Purchases of Protein, Calcium and Fibre

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Objective: Taxes and front-of-package (FOP) nutrition labels are increasingly common strategies to prevent obesity and other diet-related chronic diseases. However, few studies have examined their impact on positive nutrient intake. This study examined the impact of different sugar taxes and FOP labels on the protein, calcium and fibre densities of consumers' snack food purchases.

Methods: A total of 3,584 Canadians aged 13 years and older participated in an experimental marketplace study using a 5×3 between-within group experiment. Participants received $5.00 and viewed images of 20 snack food products available for purchase. Participants were randomized to one of five FOP label conditions and completed a series of within-subject purchasing tasks corresponding to three different taxation conditions. Upon conclusion, participants received the product and any change from one of their purchasing tasks.

Results: Participants purchased foods with higher fibre density when a sugar tax was present compared to no tax, and when they saw 'multiple traffic light' or 'health star rating' FOP labels, compared to no FOP label (p<.05 for all). There were no differences in protein or calcium density in purchased foods across the tax or labelling conditions.

Conclusions: Overall, the findings suggest that as consumers respond to tax or labelling policies by moving away from sugars, sodium, and saturated fat, there may be no downside in terms of parallel reductions in positive nutrient density. These results provide some broader insight into the potential impacts of sugar taxes and FOP labels on consumers' overall dietary intake.

ABSTRACT DETAILS

PK1.03

Global Benchmarking of Unhealthy Food and Beverage Advertising to Children on Television: How Does Canada Measure Up?

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Objective: The purpose of this study was to provide a global overview of food and beverage advertising to children on television.

Methods: Data on food advertising on children's speciality stations was gathered from 22 countries, including Canada. Television was recorded on at least one weekday and one weekend day in each country and a content analysis of all ads was then conducted. The healthfulness of promoted products was assessed using the WHO's European nutrient profile model which classifies foods as "permitted" or "not-permitted" for advertising to children. The average rate of "not-permitted" food advertisements per hour per station was determined for children's peak viewing time and compared to that of non-peak viewing time across countries.

Results: Overall, Canada had the highest rate of "not-permitted" food ads airing on children's specialty stations (9.7ads/hour/station) compared to all other countries (the overall rate being 2.4 ads/hour/station). Among high-income countries (n=5), Canada also had the highest ratio of "permitted" to "not-permitted" foods ads (1:12 ratio; the second highest being Australia with a ratio of 1:4). In Canada, the rate of "not-permitted" food ads was also 77% higher during children's peak viewing time (14 ads/hour/station) compared to non-peak viewing times (7.9 ads/hour/station). This trend was also observed in six other countries.

Conclusion: Findings suggests that children's exposure to unhealthy food and beverage advertising on television is likely higher in Canada than in many other countries. Statutory regulations restricting unhealthy advertising to children are clearly needed to protect the health of Canadian children.

PK1.04

Obesity in Canada – Understanding the Numbers

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Understanding the prevalence and temporal trends in obesity among Canadians is essential for public health planners, policy and decision makers. Canada has several rich sources of population-level data capturing obesity and its associated determinants. Methodological differences, including varying ways of measuring adiposity and differing systems to classify it among children, exist between data sources making it a challenge to interpret the distribution of obesity in Canada. The most recent estimates of obesity in Canada, as reported in the Public Health Agency of Canada's (PHAC's) Canadian Chronic Disease Indicators, using measured height and weight data identified that 13.1% of Canadian children (5-17 years) and 28.1% of Canadian adults (18-79 years)were living with obesity. Self-reported height and weight data from the same time period show different estimates, but can still provide valuable information.

Are you someone who is interested in knowing how PHAC determines if the prevalence of obesity in Canada is changing? This presentation will highlight the most recent population estimates for obesity in Canada using measured and self-reported data, applying corrections to adjust for the known biases in self-reported data, and provide a historical overview of these estimates. The presentation will illustrate the key challenges in measuring obesity at the population level and issues in comparing estimates across some of Canada's richest data sources, including the Canadian Community Health Survey and the Canadian Health Measures Survey. It will also introduce participants to PHAC's online platforms which provide easy access to national and subnational population health data, including estimates of obesity.

PK2.01

Weight Bias Internalization: Sex Differences and Relationship to Physical Activity and Sedentary Behaviour

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Background: While many negative consequences of weight bias are well known, the relationship between weight bias internalization (WBI) (i.e. self-stigma based on weight), physical activity (PA) and sedentary behaviour warrant further study.

Objectives: To examine the relationship between WBI, sex, PA and sedentary behaviour.

Methods: A Canadian sample of adults (N=175; 46.86% male; BMI 26.64 ± 5.52 kg/m^2) aged 34.30 ± 16.94 years provided questionnaires on demographics, WBI, and time in the past week spent performing moderate or vigorous PA and sedentary behaviours. The association between

ABSTRACT DETAILS

WBI, PA and sedentary behaviour after adjusting for sex, age, and race were assessed with separate multiple linear regressions.

Results: For every unit increase in mean WBI, strenuous and moderate intensity PA decreased (β: -0.11, -0.15 respectively, p<0.05), while weekday and entire week sedentary behavior increased (β: 6.35, 8.30 respectively, p<0.01). When stratified by sex, every unit increase in WBI was associated with decreased strenuous and moderate intensity PA in males (β: -0.17, -0.16 respectively, p<0.05), whereas weekday and entire week sedentary behavior increased for females (β: 6.18, 8.34 respectively, p<0.05). A subsequent analysis additionally adjusting for BMI suggested potential mediation between WBI, PA and sedentary behavior.

Conclusions: WBI was associated with decreases in PA and increases in sedentary behavior. Sex differences were apparent whereby - WBI was associated with decreased PA in men but increased sedentary behavior in women.

PK2.02

Obesity as a Chronic Disease: Listening to the Voices of Individuals Living with Obesity

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Obesity was recently listed as a chronic disease by the Canadian and American Medical Associations. There are ongoing debates on the impact of changing the definition of obesity to a chronic disease. These discussions are driven primarily by researchers' and clinicians' perspectives, many who may have never had the experience of living with obesity. This said, little is known about how this change may have impacted individuals who are living with obesity. The presentation will describe preliminary data from an ongoing study designed to provide a voice to individuals living with obesity so as to better understand of the experience of obesity from their perspective. Preliminary results from focus groups of individuals living with obesity on their perspectives on the issue of obesity being defined as a chronic disease will be presented. Results will be reviewed and discussed in terms of incorporating the voices of individuals living with obesity into our perspectives of obesity as a chronic disease.

PK2.03

Does Disordered Eating Mediate the Longitudinal Relationship Between Weight-based Teasing and BMI in Canadian youth?

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Objective: The purpose of this longitudinal investigation was to examine whether weight-based teasing at baseline predicts age and sex standardized body mass index (zBMI) 2-years later, and if this relationship is mediated by disordered eating behaviours in a community sample of Canadian youth.

Methods: Participants (n=260; 65% female) were part of the Research on Eating and Adolescent Lifestyles (REAL) study and completed questionnaires in schools assessing demographic information, weight-based teasing (McKnight Survey), disordered eating behavior (Dutch Eating Behaviour Questionnaire) and BMI (objectively measured, then standardized by age and sex according to WHO growth curves) across three time points, approximately 1-year apart. Multiple parallel mediational analyses with bootstrapping and 95% bias-corrected confidence intervals (CIs) were used to assess whether disordered eating behavior (external, restrained, or emotional eating) at Time 2 (T2) mediated the relationship between weight teasing at T1 and zBMI at T3, controlling for baseline age, gender and socioeconomic status.

Results: Analyses showed the total effect of weight-based teasing at baseline by peers ($F(4,255)=9.36$, $R^2 = .12$, $p<.001$)) and parents ($F(4,254)=2.99$, $R^2 = .04$, $p= .01$)) significantly predicted higher zBMI 2-years later. Tests of indirect effects showed that only restrained eating significantly mediated the relationship between weight-based teasing by peers (B=0.22, 95% CI; 0.11 to .38, p<.05) and parents (B=.22, 95%CI; =.11 to.36, p<.05) at baseline and zBMI 2-years later.

Conclusions: Weight-based teasing by peers and parents may be a modifiable risk factor for obesity in youth, and this relationship appears to be mediated by higher levels of dietary restraint.

PK2.04

Shifting Public Perceptions About the Nature of Obesity in Canada

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Objective: Public perceptions of obesity in Canada influence policymakers and healthcare providers. Historically, obesity has been seen as evidence of poor individual choices. But the medical view of this has been changing since the Canadian Medical Association declared in 2015 that obesity is a chronic medical disease requiring enhanced research, treatment, and prevention efforts. Our objective was to measure shifting public opinions about different narratives used to describe the nature of obesity in Canada

Methods: In late 2016 through late 2017, we surveyed a total of approximately 20,000 Canadian adults. We divided the sample evenly into five quarterly surveys with equal numbers of English and French speaking individuals. Each respondent was asked to rate their agreement with only one of four possible narratives for the primary cause of obesity: an obesogenic environment, addiction to junk food, personal irresponsibility, and a disease. For each quarterly sample, 500 respondents in each language provided responses to each of the four narratives.

Results: We found differences in perceptions about the nature of obesity over time and between English and French speaking Canadians. Compared to 2016, French Canadians agreed more with the narrative of obesity as a disease in 2017 and less with the narrative of an obesogenic environment. In contrast, English speaking Canadians agreed more with the obesogenic environment narrative in 2017.

Conclusions: Public understanding of the nature of obesity continues to evolve and is significantly different between French and English speaking Canadians.

PK3.01

Characteristics of Clinics Participating in the CANadian Pediatric Weight Management Registry (CANPWR): a Descriptive Report

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ABSTRACT DETAILS

Background and Objectives: Clinical practice guidelines highlight the importance of family-based, lifestyle and behavioural strategies in pediatric weight management programming. Little is known about clinic and program-level factors that influence health outcomes in children and families. The objective of this work was to (1) compare and contrast clinic characteristics for the nine clinics participating in CANPWR and (2) describe changes over a 2 – 4 year period.

Methods: CANPWR is a multi-centre prospective cohort study of 1334 participants enrolled at time of entry into a pediatric weight management program. Standardized participant and clinical program questionnaires were administered at baseline and program characteristics (referral process, inclusion criteria, funding, number and profession of clinicians, programming, patient interaction methods, timing and length of follow up) were re-examined at the end of recruitment.

Results: Clinic entry is restricted by age or health issues beyond BMI in 4/9 programs. Three clinics do not include preschool age children. Multiple clinics have implemented changes in practice since CANPWR began. Increased frequency of contact and increased use of behavioural management techniques (e.g., self-monitoring and stimulus control) were observed. All clinics utilized individual sessions and 6/9 supplemented with group sessions. Visit frequency varied from weekly to less than quarterly. Communication with patients was primarily in person or by phone and use of text messaging declined over the study period.

Conclusions: Delivery of pediatric weight management programming varies across sites. There have been gradual changes in clinics and programs over 2-4 years, with some characteristics becoming more generalized.

PK3.02

Youth and Parent Motivation to Change Lifestyle Habits: Preliminary Findings from the Readiness and Motivation Interview for Families (RMI-Family) Study

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Background: Motivation plays a key role in how youth and parents manage pediatric obesity. The Readiness and Motivation Interview for Families (RMI-Family) was conceptualized to better understand youth-, parent-, and family-level motivation to change lifestyle habits known to influence weight and health.

Objective: To characterize and compare motivation in youth and parents at the time of entry to a weight management clinic.

Methods: This preliminary analysis of baseline data from a longitudinal study includes information collected between Dec, 2017 and Nov, 2018 from pediatric weight management clinics in Edmonton and Calgary. Youth (13–17y; BMI ≥97th percentile) and parents were interviewed separately and the importance of lifestyle habits and readiness to change youth lifestyle habits was assessed.

Results: In total, 24 youth (50.0% female; 14.1±1.2y; 33.7±4.5kg/m^2) and 24 parents (92.0% female; 44.8±8.7y; 33.4±6.9kg/m^2) participated. For all lifestyle habits assessed, parents reported higher ratings of importance (all $p<0.05$) than youth. Parents also reported higher readiness to change youth lifestyle habits for physical activity, screen time, and intake of treat foods (all $p<0.05$) than youth; however, no differences were reported for overeating and emotional eating (both $p>0.05$).

Conclusions: In these preliminary analyses, parents tended to report higher levels of importance and readiness to change youth lifestyle habits than youth. The relevance of these differences in predicting youth health outcomes and health service use over time will be examined in future analyses as our study remains ongoing until 2019/20.

PK3.03

Health Trajectories of Children with Severe Obesity Attending a Weight Management Program

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Purpose: The objective of the present study is to examine both physical and mental health trajectories of change in youth with severe obesity attending a tertiary care weight management program over two years. It was predicted that younger children would show favorable changes in BMI, markers of cardiovascular health, quality of life, and mental health.

Methods: This two year longitudinal study examined health trajectories of children referred to a lifestyle intervention program at a Canadian pediatric tertiary care centre from November 2010 to December 2013. Participants were 209 of 216 consecutive referred pediatric patients (families) aged 3 to17 who met criteria for severe obesity and consented to participate in this study. To maximize generalizability of results, there were no exclusion criteria. Primary outcomes were children's quality of life and BMI. Secondary outcomes included anxiety, depression, non-HDL cholesterol levels, and retention rates.

Results: The findings suggest an improvement in mental health, quality of life, and cardio-metabolic health of children and adolescents of all ages over the two years of programming. These positive findings were consistent across gender, age, and distance to the program. BMI trajectory changes varied across age cohorts. The retention rate over the two years was high at 82.9%.

Conclusions: This is the first study to show improvements in both physical and mental health outcomes beyond one year in a tertiary care setting with a high-risk population of children and youth with severe obesity. Findings highlight the need to examine both mental and physical health outcomes beyond one year.

PK3.04

Behavioural Profile of Children Who Take Part in a Childhood Healthy Weights Family-Based Healthy Living Program

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Objectives: To assess the health profiles of children who participate in a childhood healthy weights family-based program in the Fall 2018.

Methods: Children who were 8-12 years old and had body mass index (BMI) ≥85th percentile, and their families were enrolled in a 10-week intervention that includes a 90-minute weekly family group session, online family portal sessions, and self-directed family activities. Families were randomized into intervention or waitlist control group. Baseline data was collected in October 2018. Children completed questionnaires on physical activity, sedentary behaviour, and healthy eating at the first session of the intervention in a "health-fair style" measurement session. Anthropometric data were also collected. Baseline descriptive mean data are presented.

Results: Fifty-five children were enrolled in the intervention. Children's BMI was on average in the 97th percentile for sex and age. On average, children reported engaging in 3 hours of moderate-vigorous physical activity per week, and 2.5 hours of sedentary behaviour per day. Children also reported consuming fruit (including 100% fruit juice) on average

ABSTRACT DETAILS

4-6 times per week and vegetables 1-3 times per week. Children also reported consuming sugary drinks 1-3 times per week.

Conclusions: Children enrolled in the program are not meeting the current Canadian 24 hour guidelines or recommendations in Canada's Food Guide. There was room for improvement in lifestyle habits and BMI including: increasing vegetable and fruit consumption and physical activity participation. Post-intervention data will be collected in December 2018.

PK4.01

Cold Can Help With Weight Loss: Fact or Fiction

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Humans in cold environments increase heat production to maintain stable core temperature; cold-induced thermogenesis has been repeatedly demonstrated and has led some scientists to believe that cold exposure (CE) could represent an avenue for improved body weight control. However, the effects of CE on energy intake (EI) in humans remain unknown. This review documents the effects of CE on energy balance, *i.e.* expenditure and intake, by examining pertaining literature and appetite-related peptides in human and animal models. Rodent models revealed that CE increases EE through shivering (sometimes to maximal oxygen consumption); however, CE also produced large EI increases that compensated for EE increases, with sufficient food available. In humans, CE increases heat production to 4-5 times the resting metabolic rate, relatively lower than animal models. Neither of 2 studies measuring *ad libitum* feeding jointly with CE found significant EI increases, however, the absolute increase for intake was greater than expenditure in both studies, casting doubt on CE as a potential weight loss adjunct. Possible reasons for the EI increase in animals include hormonal changes induced by CE (leptin decreasing, ghrelin increasing). An association has been reported between core temperature decreases and the percentage of overeating in human CE. CE produces consistent EE increases in animals, and to a lesser degree in humans, but produces an equally strong drive to feed in animals. Although more studies are required investigating the effects of CE on EI in humans, results presented here warrant caution before presenting CE as an adjunct weight loss strategy.

PK4.02

Severe Weight Cycling is as Bad for Cardiometabolic Health as Consistent Weight Gain

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Objective: Cardiometabolic health risks from weight cycling (repeated weight loss and regain) were examined.

Methods: Data were from a nationally representative cross-sectional US sample (National Health and Nutrition Examination Survey, 1999-2014). Weight history was based on self-reported weight at age 25, 10-years prior, and 1-year prior to the survey (n=5,733, 51% male). Using current self-reported weight as the anchor, participants were classified as: (1) *weight maintainers* (8%) when all previous weights were within 5%, (2) *weight losers* (5%) when current weight was ≤-5%, (3) *weight gainers* (53%) when current weight was ≥5%, and (4) *weight cyclers* (33%) when weight fluctuated once (*mild*, 31%) or multiple times (*severe*, 2%) and did not meet maintainers/losers/gainers definitions. Cardiometabolic health included fasting total cholesterol (TC), high-density and low-density lipoprotein cholesterol (HDL, LDL), and triglycerides (TG). Multiple linear regressions were used to analyze weight history (reference: *weight losers*) and adjusted for age, sex, race, poverty-to-income ratio, physical activity, smoking status, largest weight fluctuation, and the difference between self-reported and measured weight. Analyses incorporated the complex sampling design and survey weights.

Results: Compared with *weight losers*, *severe weight cyclers* had greater TC (B=11.6 mg/dL), LDL (B=12.1), TG (B=26.4), and lower HDL (B=-6.01) (*ps*<.05), as did *weight gainers* (B=13.0, B=13.8, B=37.9, and B=-8.7, respectively, ps<0.05). The risk was significantly different between mild weight cyclers and weight gainers, but not between severe weight cyclers and weight gainers.

Conclusions: Severe weight cycling is adversely associated with cardiometabolic health as much as weight gain. Research from longitudinal samples are needed.

PK4.03

The Effects of methylphenidate on Appetite, Energy Intake, and Body Composition in Individuals with Obesity: A Randomized, Double Blind, Placebo-Controlled Pilot Study

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Objectives: This pilot study examined how methylphenidate (MPH, 0.5mg/kg) affects appetite sensations, food reinforcement, energy intake (EI), macronutrient consumption, and weight-loss in youth and adults living with obesity, without ADHD.

Methods: This study employed a randomized, double-blind, placebo-controlled design. Eleven participants aged 28±6.9 yrs. (4 M, 7 F) were randomized to receive either MPH (n=5) or placebo group (n=6) for 60 days. Participants' appetite sensations (Visual Analogue Scale), relative-reinforcing value of food (computer task), EI and macronutrient consumption (*ad libitum* buffet), and anthropometric measurements (DEXA)were measured at baseline and 60 days.

Results: Repeated measures ANOVA revealed group x time interactions for appetite sensations [desire to eat (p=0.01), hunger (p=0.002), and prospective food consumption (p=0.006)]; with greater reductions in MPH group compared to placebo. For sense of fullness, there was an interaction between MPH and time (p=0.01), with a greater increase for MPH compared to placebo. Body weight significantly -decreased in both groups (p=0.01), with a moderate effect size favouring the MPH group (-2.66 kg vs. – 1.16 kg, ES =0.76). Changes between MPH and placebo did not differ significantly on EI, macronutrient consumption, or food reinforcement.

Conclusions: Our data indicate for the first time that MPH suppresses appetite in individuals with obesity resulting in a moderate–sized effect on weight loss in the short-term. These findings warrant a larger trial to more definitively examine the effect that MPH has on weight loss and maintenance of weight loss, thereby evaluating its potential as a novel pharmacological agent in the management of obesity.

PK4.04

Appetite Changes After 7-day of Caloric Restriction Predict Final Weight and Fat Mass Loss in Pre-menopausal Women Living with Obesity

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Background: Long and short-term caloric restriction are known to affect appetite, olfaction and resting energy expenditure (REE). However, it is still uncertain if acute changes in those variables might be associated with poorer treatment outcomes. Accordingly, the present study aimed to identify acute-response predictors of successful weight loss in women living with obesity.

ABSTRACT DETAILS

Methods: The study involved 36 women. Body weight, body composition (DXA), REE (indirect calorimetry), olfactory performance (Sniffin' Sticks) and appetite (Visual Analogue Scale) were measured at baseline, after 7-day period of caloric restriction and post-intervention. Eating behaviours (Three Factor Eating Questionnaire) were measured at baseline and post-intervention.

Results: Thirty women completed the study. Significant negative correlations were noted between early changes in fasting fullness and final body weight (r= -0.415; P=0.023) and fat mass (FM) loss (r=0.389, P=0.034). Similarly, changes in fasting desire to eat were associated with FM loss (r= -0.457; P=0.011). Moreover, changes in 7-day postprandial desire to eat was negatively associated with final FM loss (r= -0.353; P=0.05). Early changes in SQ desire to eat at 180 min (r=0.404; P=0.023) were also associated with FM loss. After controlling for eating behaviours, only early changes in fasting desire to eat and fullness were significant predictors of FM loss, explaining 46% of the variance in FM.

Conclusion: Our results suggest that increases in fasting subjective appetite in the first week of caloric restriction predict greater diet-induced weight and FM loss, whereas increases in post-prandial subjective appetite ratings predict poorer FM loss.

PK5.01

Does Weight Loss Prior to Pregnancy Impact Gestational Weight Gain and Adherence to Nutrition and Exercise Recommendations during Pregnancy?

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Purpose: Obesity during pregnancy increases the risk for complications including excessive gestational weight gain (EGWG). Women may be recommended to lose weight before pregnancy, however the impact of weight fluctuations before pregnancy on weight gain and adherence to nutrition and exercise recommendations during pregnancy has not been assessed.

Methods: This study compared weight fluctuations prior to pregnancy and adherence to the Nutrition and Exercise Lifestyle Intervention Program (NELIP) between women with a pre-pregnancy body mass index ≥25.0kg/m^2 who met the Institute of Medicine gestational weight gain guidelines to those who gained in excess. Any weight fluctuations including weight loss attempts up until the current pregnancy were assessed using a weight and health history questionnaire (WHQ). Adherence to the NELIP was measured by scoring participants on meeting the program's six goals.

Results: One hundred WHQs were compared (n=57 gained appropriately; n=43 gained excessively). More women who gained excessively were attempting to lose weight prior to pregnancy (n=27, 63%) than women who gained appropriately (n=23, 40%, p<0.05). Of the women attempting weight loss pre-pregnancy, women who gained excessively during pregnancy lost significantly more weight (7.1kg±10.6) than women who gained appropriately (2.2kg±3.7, p<0.05). Program adherence was significantly higher among women who gained appropriately (4.5/6, 75%) than excessively (3.3/6, 55%, p<0.05).

Conclusion: Weight loss before pregnancy may impact adherence to nutrition and exercise recommendations during pregnancy and may increase the risk for EGWG. Future studies should determine effective strategies to improve program adherence, especially for women who have experienced recent weight loss.

PK5.02

The Association Between Women's Gestational Weight Gain Concordance With Guidelines And Their Children's Body Mass Index Trajectories

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Background: Retrospective cohort studies, systematic reviews and meta-analyses have demonstrated that children at various ages whose mothers gained weight in excess of guideline recommendations are at greater risk of living with obesity than children whose mothers' GWG was concordant with the guidelines. In Nova Scotia, 60 % of women gain excess weight during pregnancy, and 15% of children in grade 3 live with obesity. There is controversy as to whether and how the relationship between GWG and childhood obesity is modified by the mother's pre-pregnancy BMI, and whether insufficient GWG is also implicated in this risk. Further, much of the work has only offering a cross-sectional view. This study aimed to obtain a clearer understanding of children's BMI over time by linking prenatal (maternal) and postnatal (child) primary care electronic medical record data.

Method: This was a retrospective cohort study using longitudinal data that were collected over the period starting from the mother's last prenatal visit and ending in the child's last visit up to approximately the first 5 years of life. Participants for this study were women with singleton pregnancies who received prenatal care in primary care clinics between January 1, 2010 and December 31, 2017, and their children born between January 1, 2010 and December 31, 2017.

Multilevel modeling (MLM) was employed in order to accommodate the participants with repeated observations that were unequally spaced.

PK5.03

Strategies for Healthy Lifestyle During Pregnancy: Can We Prevent Excessive Gestational Weight Gain?

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Objective: Maternal obesity and excessive gestational weight gain (EGWG) are associated with adverse maternal and fetal outcomes. Some strategies for healthy lifestyle implementation may be more effective than others at preventing EGWG and mitigating maternal obesity. Sequential, rather than simultaneous, introduction of nutrition and physical activity lifestyle changes could have a great positive impact on maternal health, and incidentally, fetal outcomes.

Methods: We compared pregnant women (n=18) that were block randomized into one of three Nutrition and Exercise Lifestyle Intervention Program (NELIP) strategies (full NELIP; Nutrition followed by Exercise (N+E); or Exercise followed by Nutrition (E+N)). At study entry, women were introduced to either the nutrition, exercise, or both nutrition and exercise study components. At 24 to 25 weeks gestation (mid-pregnancy), the second study component was added for the N+E and E+N strategies; for the full NELIP, both nutrition and exercise components were continued until delivery.

Results: At delivery, the E+N intervention strategy group had the lowest incidence of EGWG (14% vs 50% NELIP and 66% N+E; p=0.023) relative to the full NELIP and N+E groups.

Conclusions: Women participating in the exercise followed sequentially by nutrition strategy had the lowest incidence of EGWG, suggesting that this strategy may be more effective than others at preventing EGWG. Literature posits that exercise given first may be a "gateway" to initiating other health behaviours, which may also be indicated during pregnancy.

ABSTRACT DETAILS

PK5.04

A Lifestyle Management Program Targeting Women with Obesity and Infertility Improves their Chances of Conceiving Without Fertility Treatments

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Objective: To evaluate the impacts of a lifestyle program in women with obesity and infertility on: 1) fertility outcomes, and 2) anthropometric and lifestyle measures.

Methods: Women with obesity seeking fertility treatments were randomized to the lifestyle program group (LPG) or control group (CG). LPG received the lifestyle intervention alone (first 6 months), and in combination with fertility treatments if no conception. CG followed standard fertility care. Proportions were compared using chi-squared tests and means by Student's ttests.

Results: A total of 108 women completed ≥6 months of the study (51 LPG and 57 CG). In comparison to the CG, the LPG had a significantly higher clinical (60.8% vs 38.6%, *p*=0.021) and spontaneous pregnancy rates (33.3% vs 12.3%, *p*=0.009) and a higher birth rate (LPG: 51.0 vs CG: 36.8%, *p*=0.139; NNT=7.0) at 18 months of follow-up. Miscarriage rates were similar (19.4% vs 18.2%, *p*=1.0; Fisher's exact test). When comparing both groups at 6 months of participation (51 LPG; 52 CG), the LPG had lost significantly more weight (-3.1±4.6 vs -0.93±4.1 kg,*p*=0.015), waist circumference (-2.8±4.3 cm vs -0.94±4.4 cm, *p*=0.040) and percentage of fat mass (-1.1±1.7% vs -0.42±1.4%,*p*=0.045). The LPG also improved significantly more their lifestyle habits vs the CG.

Conclusion: A lifestyle program targeting women with obesity seeking fertility treatments improves not only their anthropometry and lifestyle habits, but most importantly, their chances of conceiving, especially spontaneously, in comparison to standard fertility treatments alone. Such a program could reduce significantly the costs associated with fertility treatments.

PK6.01

Examining the Gap Between Eligible and Referred Patients for Bariatric Surgery in South Eastern Ontario

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Objective: To define the number of individuals within South Eastern Ontario that were (1) eligible for referral for bariatric surgery based on National Institute of Health (NIH) criteria, and (2) who were referred to the Ontario Bariatric Network (OBN).

Methods: A linkage study between the Canadian Primary Care Sentinel Surveillance Network (CPCSSN), a national repository of electronic medical record data, and the OBN referral database. Patients, 18 years and older, eligible for referral between 2012 and 2017 were obtained from CPCSSN data. Patients actually referred wereobtained from the OBN registry. Deterministic linkage methodology was used to match the de-identified databases using common data elements. Demographic and health characteristics of those eligible for referral were compared to those referred and not referred using multivariate logistic regression.

Results: Of the 87,276 patients in this primary care sample, 16.2% were eligible for referral for bariatric surgery; however, only 6.7% of those eligible were referred. The multivariate regression revealed that BMI is the strongest predictor for being referred. Those patients with a BMI ≥50 kg/m^2 were 4.28 (95% CI, [3.47, 5.28]) times more likely to be referred than those with a BMI between 35.0 and 39.9 kg/m^2. Women and those living in a rural location were also significantly more likely to be referred.

Conclusions: There is a significant gap between patients eligible for bariatric surgery and those referred in South Eastern Ontario. The reasons behind this referral gap needs further exploration as bariatric surgery has well established benefits and cost-effectiveness.

PK6.02

Cortisol Awakening Response in Patients with Severe Obesity Awaiting Bariatric Surgery

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Objective: Studies on the cortisol awakening response (CAR) are difficult to compare due inconsistencies in the calculation method used. Our objective was to test associations of the various CAR definitions to components of the metabolic syndrome (MetS) in patients awaiting bariatric surgery.

Methods: We analysed a subsample of 41 participants (70% female, mean BMI 49kg/m^2) from a larger study on food addiction. Saliva was collected on 3 consecutive weekdays at the time of as well as 15 and 30 minutes after awakening. Salivary cortisol was measured using a commercial immunoassay. CAR was defined as: mean increase (MnInc), delta increase, incremental area under the curve (AUCi) and total AUC (AUCt). Data on hypertension or type 2 diabetes diagnoses, waist circumference (WC), HbA1c, fasting glucose, blood pressure (BP), HDL-cholesterol and triglyceride concentrations were retrieved from medical records.

Results: CAR responses were not different according to diagnosis of hypertension, diabetes or MetS. No association was found between WC, HbA1c, fasting glucose, BP, HDL-cholesterol and CAR, irrespective of the definition used. A negative association was found between triglyceride levels and MnInc (r=-0.35, p<0.05) or AUCi (r=-0.38, p<0.05). No differences were found among AUCt high- and low-responders in any of the parameters examined. AUCi high-responders had higher WC (p<0.05), higher triglycerides (p<0.05) and lower HDL-cholesterol (p<0.05) than low-responders.

Conclusion: Among the various CAR definitions used, high AUCi predicted a slightly worse metabolic profile. Our study highlights the importance of possible divergences depending on the CAR calculation used.

PK6.03

Outcome of Bariatric Surgery in Patients who Achieve Weight Loss in Excess of 20% with Liraglutide

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Background: Some patients achieve weight loss with liraglutide comparable to typical weight loss after bariatric surgery. The weight loss outcome after bariatric surgery is unknown in this population.

Objective: In patients who achieve > 20% weight loss with liraglutide, we determined the weight loss outcome after bariatric surgery.

Methods: Retrospectively, we identified patients enrolled at a Canadian tertiary care bariatric centre between October 2015 and November 2016 who lost > 20% of their initial body weight utilizing liraglutide, and subsequently underwent bariatric surgery. We evaluated (1) percent weight loss (PWL) from initial presentation to postoperative nadir, (2) PWL from immediate preoperative weight to postoperative nadir, and (3) time to weight loss plateau after bariatric surgery.

ABSTRACT DETAILS

Results: We identified 7 patients who met criteria for study entry. Liraglutide was discontinued at the time of surgery. Median weight loss with liraglutide was 27.7% (IQR 27.1-28.6%). Median weight loss from initial presentation to postoperative nadir was 38.1% (IQR 34.8-43.4%). Median weight loss from immediate postoperative weight to postoperative nadir was 13.8% (IQR 9.4-17.3%). All patient achieved weight loss plateau by 12 months postoperatively; 57.1% of patients plateaued by 3 months, and 85.7% of patients plateaued by 6 months.

Conclusions: Patients that achieve > 20% weight loss with liraglutide, and then have bariatric surgery, experience a weight loss plateau earlier than typically seen postoperatively. PWL based on immediate preoperative weight is less than is typically achieved with bariatric surgery. Based on initial weight, this patient group achieves above-average PWL after bariatric surgery.

PK6.04

Patient Perceptions on Characteristics for Guiding Prioritization of Obese Individuals for Bariatric Surgery

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Objective: Bariatric surgery is recommended for individuals with severe obesity (BMI 40kg/m^{2}or more, or BMI 35-40kg/m^{2}with comorbidities). However, patients often face a long wait time to surgery, with adverse impacts on physical and mental health and even mortality. This study examined patient perspectives on potential criteria that may guide prioritization of patients for surgery.

Methods: Three focus groups were conducted to identify and rank potential criteria. Participants included adults living with obesity in Newfoundland and Labrador recruited through the Eastern Health bariatric surgery program and a private Facebook support group. We employed the nominal group technique that included four steps: 1) generate ideas; 2) record ideas; 3) discuss ideas; and 4) vote on ideas.

Results: Several themes emerged, but one overarching theme was the necessity to consider the complete patient picture. Participants highlighted the importance of co-morbidities, especially those with cardiovascular consequences, and emphasized the significance of the overall burden of disease, over individual diseases. Mental health was a major theme including obesity-related anxiety and depression and the emotional toll that individuals experience pre and post-surgery. Participants unanimously agreed that income, gender and, to a lesser degree, age should not play a role in prioritization.

Conclusions: Participants agreed that additional criteria beyond BMI and the time since referral should be taken into consideration when prioritizing patients for bariatric surgery. Such prioritization should focus on the whole patient including the impact of severe obesity on physical and mental health and the ability to carry out activities of daily living.

P01A

"Caring About Me" Framework: A Constructivist Grounded Theory Study Exploring Patient-Centered Care Experience in a Collaborative Bariatric Surgery Program

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Background: A sizable number of bariatric patients struggle with weight regain after bariatric surgery due to the chronic and relapsing nature of obesity requiring comprehensive management approaches. Sound evidence supports that integrated care (IC) approach promotes patient-centered care, Institute of Medicine (2001), defined as "respectful and responsive to individual patient preferences, needs, and values", in which "patient values guide all clinical decisions."

Objective: To conceptualize patient-centered care experience from the patients' perspective in a collaborative bariatric surgery program.

Methods: Using a constructivist grounded theory approach, we conducted (n=12) semi-structured interviews with a purposeful sample of patients with co-morbid mental and physical conditions at 2 IC sites in Toronto, 2017-2018. Six interviews focused on bariatric surgery patients. Throughout data collection and analysis, we considered the theoretical plausibility, direction, centrality, and adequacy to inform theory construction.

Results: The generated empirical model composed of 4 categories help explain the process of patient-centeredness in IC settings: A) Caring about Me B) Collaborating with Me C) Helping Me Understand and Self-Manage My Care D) Personalizing Care to Address My Needs. Patients perceived bettered quality of patient-care team interactions was a requisite for experiencing patient-centeredness. IC processes and infrastructure enhanced patient access to long-term support, helped patients understand their illness, and enabled personalizing care to address individuals' care needs.

Conclusion: IC models have the potential for facilitating access to comprehensive obesity care that is respectful and responsive to patients' complex care needs and strengthens patient-care team alliance to improve bariatric patients' long-term health outcomes and self-management.

P01B

The Change in Alcohol Consumption by Sex Following Bariatric Surgery

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Background: Bariatric surgery (BS) has become the treatment of choice for patients living with severe obesity ([BMI] ≥ 40kg/m2). However, studies suggest that BS may increase the risk of some unhealthy behaviors such as alcohol consumption.

Objective: Investigate change in alcohol consumption from pre to post surgery as a function of sex among patients undergoing bariatric surgery.

Methods: 40 patients undergoing bariatric surgery at the CIUSSS-NIM, Hopital du Sacre-Coeur de Montreal participated in this REBORN (REsearch on Bariatric care for Obesity tReatmeNt) sub-study (27 women); (M [SD] age= 44.9 [9.8] years; M [SD] weight (kg) =140.3 [37]). Interviews collecting information on health risk behaviors were conducted 3 months pre-surgery, and general linear models explored change in alcohol consumption from pre to 6 months post-surgery, adjusting for age, baseline BMI and baseline alcohol consumption.

Results: We observed significant sex differences in change in alcohol consumption from pre to post-surgery (F=26.2, p=0.01). While women's levels of alcohol consumption remained stable (M pre= 2.4 [2.4] vs M post= 2.3 [0.9]), men's levels of alcohol consumption decreased significantly from pre (M= 2.5 [1.7]) to post (M= 1.3 [1.4]) surgery. Baseline age and BMI were not significantly related to change in alcohol consumption.

Conclusion: Results suggest women's alcohol use after bariatric surgery remains stable in contrast to men, whose consumption decreases by half post-surgery. Future studies in larger samples with longer follow-ups are needed to determine the reasons for this sex difference, and the long-term course of alcohol use in men and women post-bariatric surgery.

ABSTRACT DETAILS

P02A

Pre-surgical Self-esteem and Sex are Linked to Depression Following Bariatric Surgery

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Objective: Bariatric surgery (BS) is recommended as the primary intervention for individuals living with severe obesity (BMI>40.0), and linked to significant reductions of excess weight and depression. BS candidates endorse greater somatic (e.g. appetite, fatigue) rather than cognitive symptoms (e.g. guilt) of depression. Emotional processes, i.e. self-esteem, have been linked to lower somatic and cognitive depressive symptoms, but it is unclear the changes that occur between pre-surgical self-esteem on post-surgical depression, and whether this differs by sex.

Methods: Forty-two patients undergoing BS at the CIUSSS-NIM participated in this REBORN (REsearch on Bariatric care for Obesity tReatmeNt) sub-study (71% female; M_{age}=49.0,SD=11.5). Patients completed psychosocial questionnaires (Rosenburg Self-Esteem Questionnaire, Beck Depression Inventory-II[BDI]) 3-months pre- and 6-months post-surgery.

Results: Adjusting for age, antidepressants, BMI-change and baseline BDI scores, baseline self-esteem interacted with sex in the association with 6-month post-surgical BDI scores, ΔR^2=.09,F(1,34)=8.69,p=.005. Baseline self-esteem was linked to lower BDI scores 6-months post-surgery for men (b=-0.92,t=-3.49,p=.001), but not women (b=-0.07,t=-0.47,p=.641). Likewise, baseline self-esteem interacted with sex in the association with 6-months post-surgical BDI-somatic scores, ΔR^2=.08,F(1,33)=5.57,p=.024. Baseline self-esteem was link to lower BDI-somatic scores for men (b=-0.76,t=-3.12,p=.004), but not women (b=-0.14,t=-1.04,p=.304). Self-esteem nor sex were linked to changes in BDI-cognitive at 6-months follow-up.

Conclusion: Though preliminary, higher pre-surgical self-esteem in men, but not women, seems to be associated with larger reductions in depressive symptoms, particularly somatic. As data-collection continues, it will be important to evaluate long-term mental health outcomes as BS patients continue to lose weight.

P02B

Maternal Obesity Results in Decreased Hypothalamic and Placental POMC Expression

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Maternal obesity is associated with offspring obesity in humans. Identifying underlying mechanisms may lead to markers useful for early intervention. One potential marker is the expression of the proopiomelanocortin gene (POMC). POMC expression is reduced in the hypothalamus of rodents exposed to a HFD and in the brains of pup born to dams that are made obese through HFD exposure. The objective of this study was to examine the influence of maternal HFD on placental POMC expression, to determine if POMC expression in this tissue correlates with hypothalamic POMC expression. To do this, 30-day old females were fed either a 45% fat diet (HFD) or a carbohydrate matched 10% fat diet (Chow) up to 10 weeks. They were mated and as soon as conception was detected, dams were assigned to one of four groups: 1) $Chow_{(pre\text{-}gestation)}$- $Chow_{(gestation)}$; 2) $Chow_{(pre\text{-}gestation)}$- $HFD_{(gestation)}$; 3) $HFD_{(pre\text{-}gestation)}$- $Chow_{(gestation)}$and 4) $HFD_{(pre\text{-}gestation)}$- $HFD_{(gestation)}$. At late gestation fetus and placenta were collected for qPCR analysis. Fetuses from all 3 HFD groups had significantly reduced POMC expression in the hypothalamus ($p<0.02$), and in the placenta ($p<0.05$) compared to fetuses of lean dams receiving the control Chow diet. Since the pattern of change in POMC expression in both the placenta and hypothalamus is similar, it could be argued that POMC expression in the placenta is sensitive to the same signals that reduce POMC expression in the hypothalamus and may be used as an early marker for obesity susceptibility.

P03A

The Saturated Fatty Acid Palmitate Causes Insulin Resistance in Skeletal Muscle Cells, Impairing GLUT4 Translocation and Rac1-dependent Actin Remodelling

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Introduction: Glucose enters the muscle cell through the GLUT4 glucose transporter that redistributes to the cell surface in response to insulin (GLUT4 translocation). GLUT4 translocation is the rate-limiting step in skeletal muscle (**SkM**) glucose metabolism and its failure is implicated in the development of insulin resistance (**IR**) and Type 2 Diabetes (**T2D**).

Rationale: After insulin binds to its receptor, two signalling pathways coordinate GLUT4 translocation: one moves GLUT4 vesicles to the cell surface by activating Akt, and the other facilitates actin remodelling via Rac1. Successful GLUT4 translocation depends on the complete activation of both pathways and it is unknown which specific molecular steps of GLUT4 translocation malfunction during IR.

We hypothesize: that palmitate (**PA**), a saturated fatty acid found in Western diets, impairs GLUT4 translocation by inhibiting the Rac1 signalling arm and actin remodelling.

Methods: SkM myoblasts were treated with PA (0.35mM) for 18hrs, stimulated with insulin (0.1nM; 15min) and processed for: colorimetric surface GLUT4 detection, fluorescence microscopy, and immunoblotting.

Results: PA caused IR of GLUT4 translocation without impairing Akt phosphorylation. PA-treated myoblasts failed to activate Rac1 in response to insulin and did not engage in Rac1-dependent actin remodelling. PA-treated cells failed to inactivate of cofilin in response to insulin, a key event required for actin remodelling.

Conclusions/Significance: In myoblasts, PA causes IR of GLUT4 translocation possibly as a consequence of defects in Rac1 activation that impair actin remodelling. Currently, no diabetic therapy targets GLUT4 translocation and understanding which specific elements fail during T2D is key for their development.

P03B

Fat But Fit: how Hibernating Ground Squirrel Adipose Tissue Regulates Pro-inflammatory Signaling Pathways

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Both the advanced-glycation end product (AGE) receptor (AGE-RAGE) signaling pathway and the inflammasome pathway are emerging as important signal transduction pathways that influence the immune and oxidative stress responses and are often dysregulated in patients with obesity and diabetes. To uncover novel protective mechanisms against inflammation in a natural model of obesity, we studied how obese hibernating ground squirrels regulate these pathways as they transition into and out of torpor, a state of metabolic suppression. Torpor enables these "fat but fit" animals to coordinate the utilization of white adipose tissue (WAT) fat depots and power brown fat (BAT)-mediated thermogenesis while limiting inflammation and tissue damage. Surprisingly, RAGE levels increase during torpor and as animals arouse from hibernation, but the relative levels of RAGE ligands either don't change or decrease in both WAT and BAT. Inflammasome components were more expressed at the mRNA level in BAT but not WAT, suggesting that ground squirrel WAT may suppress inflammasome component expression to prevent obesity-induced inflammation and associated chronic diseases. BAT may

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increase inflammasome activity as hibernators emerge from torpor due to an associated influx of ROS. These studies are the first of their kind that show hibernators may use coordinated mechanisms to regulate inflammation as they enter and arouse from torpor, and could help elucidate novel points of inflammatory regulation for disease prevention in obese mammals.

P04A

Endocannabinoid Signalling is Required for Ghrelin-Induced Motivated Feeding Within the VTA

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Ghrelin and endocannabinoids encourage feeding behaviours by activating growth hormone secretagogue receptors (GHSRs) and cannabinoid receptors (CB-1Rs) in feeding related brain regions such as the hypothalamus (HYP) and ventral tegmental area (VTA). Within the HYP, ghrelin and endocannabinoid systems interact and depend on one another to promote feeding behaviours. Although activation of either ghrelin or endocannabinoid systems within the VTA encourages food motivation and consumption; the interdependence of these systems in eliciting these behaviours within the VTA remains unexplored. Accordingly, we set out to determine whether ghrelin and endocannabinoid systems interact within the VTA and whether an intact endocannabinoid system is essential for ghrelin-mediated stimulation of food intake and feeding motivation. We predicted that if these systems depend on one another, then disruption of one system should alter the other. We examined endocannabinoid concentrations and transcript levels of endocannabinoid system proteins within the VTA of WT and GHSR KO rats and found a suppression of the endocannabinoid system in GHSR KO rats. Next, we asked whether CB-1R antagonism would block intra-VTA ghrelin induced food intake. Indeed, peripheral and intra-VTA administration of rimonabant (CB-1R antagonist) attenuated the rise in food intake induced by intra-VTA ghrelin. In progressive ratio operant experiments, intra-VTA rimonabant also blocked the heightened motivation to feed induced by intra-VTA ghrelin. These data support the hypothesis that ghrelin and endocannabinoids systems collaboratively regulate feeding behaviours within the VTA. Whole cell patch clamp experiments are underway to elucidate the mechanism by which ghrelin and endocannabinoid systems interact within the VTA.

P04B

Comparative Study of Myokine Secretion in the Context of Obesity and Type 2 Diabetes in Response to Acute and Chronic Exercise

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Reasoning: Myokines are cytokines secreted by skeletal muscle that can influence whole-body energy metabolism. Myokines are secreted differently in the context of obesity and type 2 diabetes (T2D). Acute and chronic exercise can influence the secretion of certain myokines. Since physical activity is an efficient method for the management of obesity and T2D-related metabolic defects, it has been suggested that myokines might be the mediators of the beneficial effects of exercise on energy metabolism. The aim of this study is to determine if acute and chronic exercise can alter myokine secretion in patients with obesity and/or T2D.

Methods: Muscle biopsies and plasma samples of participants with or without obesity and T2D participating in different exercise interventions are obtained. Quantification of myokines released in circulation (plasma) and locally by skeletal muscle (cell culture supernatants from human primary skeletal muscle cells) after an acute bout of exercise and in response to an exercise intervention are measured by multiplex assay.

Results: Analysis of cell culture supernatant from hSkMCs of untrained individuals showed an increase in muscle interleukin (IL)-6 secretion in the context of T2D, but not obesity.

Conclusion: Ongoing experiments will help determine if acute and chronic exercise can improve IL-6 and other myokines' levels in patients with T2D and/or obesity. The goal of this study is to obtain preliminary data of the effect of different types of exercise training on myokine secretion for the management of metabolic defects related to obesity and T2D.

P05A

Cooked White and Dark Red Kidney Beans Improve Body Composition During the Development of High Fat Diet-induced Obesity in C57Bl/6 Male Mice

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Objective: To determine if cooked white kidney beans (WK) or dark red kidney beans (DK) supplemented into a high-fat diet (HFD) would attenuate the development of obesity in mice.

Methods: 5-week-old male C57Bl/6 mice consumed either a low-fat diet (LFD) (17% kcals from fat), HFD (60% kcals from fat), or HFD supplemented with 15% WK (HFD+WK) or DK (HFD+DK) for 9 weeks. Body weight (BW) and food intake were measured bi-weekly and body composition was assessed at weeks 2 and 6 by EchoMRI. Fasting blood glucose was measured at weeks 3 and 7.

Results: Over the 9-week feeding trial, all mice consuming high fat diets gained BW ($p<0.05$) compared to LFD group, however mice consuming bean diets gained weight faster (week 4) than HFD controls (week 6), despite having equivalent diet intake. At week 2, body fat mass did not differ between groups, however at week 6 all mice fed high fat diets had more fat mass compared to LFD ($p<0.05$). Body lean mass was significantly increased at week 2 in HFD+WK and HFD+DK groups compared to LFD and HFD controls ($p<0.05$). At week 6, lean mass was lowest in HFD group compared to LFD control, HFD+WK and HFD+DK groups ($p<0.05$). Fasting blood glucose was similarly elevated in all high fat diet groups at weeks 3 and 7, compared to LFD group ($p<0.05$).

Conclusions: When consumed as part of an obesogenic diet, WK and DK improved body composition by enhancing lean vs fat mass in male mice during obesity development.

P05B

Hypoxia Perturbs the Transcriptional Response to Dioxin-like Persistent Organic Pollutants in Human Fat Cells

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Context: Excessive fat mass is associated with bioaccumulation of persistent organic pollutants such as dioxin-like polychlorinated biphenyls (PCBs) and may also expose fat cells to reduced oxygen availability (hypoxia). Dioxin-like PCBs and hypoxia are environmental stressors

triggering cellular transcriptional pathways that utilise a common factor. Whether the transcriptional response to dioxin-like PCBs is perturbed in fat cells exposed to hypoxia remains unknown.

Objectives: To investigate the effect of hypoxia on the transcriptional response of human fat cells after exposure to PCB-126, a dioxin-like PCB.

Methods: Differentiated human fat cells were exposed to different levels of PCB-126 (0.01 μM, 0.1 μM, 1 μM and 10 μM) under varying oxygen levels (21%, 10% and 3% O2) for 24 h. Gene expression of cytochrome P450 family 1 subfamily A member 1 (CYP1A1), a protein responsible for PCB detoxification, was quantified by real-time PCR.

Results: As expected, PCB-126 increased CYP1A1 mRNA levels in a dose dependent manner in human fat cells under normoxia (21% O2). Simultaneous exposure to PCB-126 and hypoxia (10 and 3% O2) significantly inhibited CYP1A1 mRNA levels. A greater reduction in CYP1A1 mRNA levels was observed under more severe hypoxic condition.

Conclusion: The transcriptional response induced by dioxin-like persistent organic pollutants in fat cells is significantly reduced by hypoxia. Overall, this suggests that the metabolism of PCBs may be perturbed in fat cells facing a lack of oxygen, a condition that may occur during an excessive expansion of fat mass.

P06A

The Development of a Web-Based Component For a Childhood Healthy Weights Family-Based Healthy Living Program

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Objective: Incorporating a web-based component to a traditional in-person program can help improve program flexibility and delivery. The study aim was to describe the development process of an interactive web-based component that was delivered in conjunction with a 10-week in-person healthy lifestyle program for families and their children (age: 8-12 years; BMI >85th percentile).

Methods: We used an integrated-KT approach to develop the web-based component of the program that is relevant to all stakeholders (e.g. knowledge-users, end-users) during summer 2018. The development process consisted of: 1) Intervention planning; 2) Proto-type development; 3) Pilot testing phase to collect usage, usability, and acceptability data.

Results: Stakeholders identified program requirements (e.g. accessibility, length). An iterative process was used to develop the 10-week web-based healthy lifestyle behaviour component. Participants were introduced to a new lesson every week following their in-person group session. The pilot testing revealed that participants (n=4) accessed on average 72% (range: 40-100%) of all available content during the 10-week program. The most popular content included healthy eating topics, recipes and self-monitoring tools. Based on the usability testing, we improved i) interactivity by incorporating interactive quizzes and online forum, ii) readability by using more multi-media to further improve engagement.

Conclusion: This study has reinforced the importance of an iterative development process that involves all stakeholders in designing a web-based intervention. This process enabled our team to clarify the program requirements and usability testing provided valuable feedback to further improve program design. Our next step is to evaluate program effectiveness.

P06B

Severe Obesity and Global Developmental Delay in Preschool Children: Preliminary Findings from a Canadian Paediatric Surveillance Program

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Background: Existing evidence suggests severe obesity (SO) and global developmental delay (GDD) are related. No Canadian studies have examined SO and GDD in children. Understanding the frequency and severity of the association between SO and GDD is needed to inform health services and policies for clinicians to tailor their care for these patients

Objective: To characterize SO and GDD in preschool children in Canada.

Methods: A monthly survey was distributed to practicing general paediatricians and paediatric subspecialists (~2,500) participating in the Canadian Paediatric Surveillance Program (CPSP) from Feb, 2018 to Jan, 2019 to report new cases of SO and GDD among children ≤5 years of age.

Results: To date, 38 cases have been reported. Eleven confirmed cases (64% female; 3.5±1.2y; 28.6±5.2kg/m^2) were included. CPSP participants reported age of GDD diagnosis at 2.3±1.0 years and age of first weight concerns at 2.7±1.3 years. The most common health problems reported were snoring (50%) and asthma (40%). Dietitians (91%) and developmental paediatricians (64%) were also involved in their care. The biggest challenges reported in supporting children with SO and GDD included (1) a lack of developmental and obesity health services and (2) the wait time between referral access to services.

Conclusions: Concerns about SO among children with GDD tended to begin around 2.5 years of age. Multidisciplinary service provision was common; however challenges to access in care were identified. Monthly surveillance remains ongoing until Jan, 2020. Final analysis will include incidence, risk factors, and health care needs.

P07A

Women's Self-Efficacy is Associated with Meeting Institute of Medicine Gestational Weight Gain Guidelines: Findings from the Canadian Electronic Maternal Health Survey

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Objective: Awareness of the 2009 Institute of Medicine (IOM) pregnancy weight gain guidelines contributes to healthy gestational weight gain. This study assessed the psychosocial factors, barriers, and facilitators towards women's adherence of the 2009 IOM guidelines.

Methods: Cross-sectional data were collected from pregnant (n=320) and postpartum (n=1179) women who responded to a validated online questionnaire, the Electronic Maternal (EMat) health survey. Multiple linear logistic regression analyses were used to evaluate several correlates related to meeting or not meeting IOM recommendations.

Results: Women who worried about gaining too much weight were significantly less likely to meet IOM guidelines (OR = 0.48, 95% CI = 0.33

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– 0.69). An internal locus of control for weight gain was associated with a greater likelihood of meeting guidelines when women perceived to be in control of their weight gain (OR = 1.75, 95% CI = 1.29 – 2.37), healthy and exercised (OR = 1.91, 95% CI = 1.34 – 2.71), and when no barriers to healthy weight gain were reported (OR = 1.43, 95% CI = 1.04 – 1.95). An external locus of control where women perceived weight gain as beyond control of the mother was associated with a significantly reduced odds of achieving weight gain guidelines (OR = 0.58, 95% CI = 0.39 – 0.88).

Conclusions: Self-efficacy and perceived controllability of behaviour are important factors to consider when developing interventions related to achieving guideline-concordant weight gain during pregnancy. These findings may help facilitate positive downstream health outcomes for both mother and infant.

P07B

A Food Frequency Questionnaire to Determine Dietary Patterns in Pregnant Women: A Pilot Study

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Purpose: To investigate if there were differences in eating habits between pregnant women who have a normal weight and overweight body mass index (BMI) to determine if these nutrition patterns can be used to develop dietary patterns.

Methods: A 24-item Short-Form Food Frequency Questionnaire (SFFFQ) was administered to 29 pregnant women at 12-18 weeks gestation. Participants were divided into two groups based on pre-pregnancy BMI (normal weight and overweight). Dietary Quality Scores (DQS) were calculated for the SFFFQ. A DQS score of ≥ 12 was defined as having a healthy diet.

Results: Twenty-eight % of women had a DQS score that was ≥ 12, 65% had a DQS score of 9 to 11 (moderately healthy), and 7% had a DQS score ≤ 8 (junk/non-healthy). No significant differences (p=0.68) were found between the average DQS scores stratified by normal weight (n=13) and overweight (n=16) BMI categories.

Conclusion: Results suggested that pregnant women who have a normal weight and overweight BMI appear to have the same overall dietary patterns. However, only 28% of pregnant women have a healthy diet, with the majority (65%) consuming a moderately healthy diet (DQS of 9-11). This suggests that nutrition interventions may be more successful if they are tailored to the dietary patterns of pregnant women with DQS scores of 11 and lower, in order to improve their overall diet quality.

P08A

Development of a Core Outcome Set for Studies on Obesity in Pregnant Patients (COSSOPP) and Identified Challenges

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Background: Outcome reporting varies between clinical trials, limiting the needed data aggregation for clinic and future research, and does not include all stakeholders, compromising patient-centered care.

Objective: To establish a core outcome set for obesity in pregnancy trials, as agreed upon by relevant stakeholders.

Methods: We developed a long list of outcomes to thereafter be scored by internationally represented stakeholders and narrowed using consensus criteria. I)We systematically reviewed quantitative literature for all outcomes and assessed reporting quality. II)We reviewed literature for patient-reported outcomes, and conducted interviews with pregnant/postpartum women and focus groups with nurses, obstetricians, anaesthetists, social workers, dieticians, etc. We thematically analyzed transcripts. III)We taxonomized all aforementioned outcomes for Delphi surveys.

Results: I)We screened 4916 quantitative results and included 73, which reported 173 maternal and 86 offspring outcomes. II)We screened 273 qualitative results, and included 27. Not one provided patient-reported outcomes. We interviewed six women (mean BMI 44.5) and two professional groups, who most frequently valued *Functioning* and *Physiological/Clinical* outcomes, respectively. All stakeholders discussed obesity stigma in healthcare, though professionals discussed health in terms of obesity more than did patients. We prematurely halted patient interviews, to address this qualitative methodological issue.

Conclusion: We identified significant outcome variability in obesity in pregnancy research, and minimal overlap with patient-reported outcomes. Moreover, clinical communication barriers hindered the patient perspective in terms of outcomes. We will complete COSSOPP by August and thereafter use the Brokered Dialogue method to expose and address inadequate and/or disrespectful obesity counseling that we propose is systemic in medicine.

P08B

Methylphenidate (MPH) Affects Executive Functioning with Associated Improvements in Appetite Control: A Pilot Study

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Introduction: Dopamine (DA) activity has been implicated in obesity and appetite regulation. DA also influences many cognitive processes including executive functioning (EF). Poor EF predicts increased energy intake and obesity. Thus, the objective of this study was to investigate the effect of methylphenidate (MPH), a dopamine reuptake inhibitor, on EF and appetite variables in adults with obesity.

Methods: Nine participants (28±6.9yrs; BMI 36.1±4.5kg/m^2) were assigned to either MPH (0.5 mg/kg) (n=5) or placebo (n=4) twice daily for 60 days in a double-blind, randomized pilot trial. Appetite variables (visual analogue scale) and EF indicators (NIH Toolbox-cognition domain battery) were measured at baseline and day 60.

Results: There was a trend for a 7% improvement in the (dimensional change card sort test) scores, a measure of cognitive flexibility, in the MPH group (115.6±19.6, 123.6±21) as compared to a 6% decrease in placebo group (113.7±23.3, 107±28.8) (p=0.08), with a medium effect size (cohen's d = 0.58). Improvements in card sort test scores were associated with reductions in hunger (r=-0.733, p=0.025), prospective food consumption (r=-0.684, p=0.042), and desire to eat (r=-0.623, p=0.073). Other indicators of cognition were not significantly affected by MPH or associated with appetite, although trends were in expected directions.

Conclusion: MPH may improve cognitive flexibility in individuals with obesity and this change is associated with improved appetite control. Further investigations are needed to verify the effects of MPH on indicators of EF, and whether these lead to improved energy intake and appetite regulation in individuals with obesity.

P09A

Policy Implications of Smartphone-based Screen Time and Holistic Wellbeing Among Adults: a Smart Platform Study

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Objectives: Increased levels of screen-time (ST) have negative impacts on physical and mental health. Studies focus predominantly on ST accumu-

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lated with television, computer, and video gaming devices and there is a lack of understanding how smartphone technology can impact health. This study aims to investigate the relationship between ST accumulated on smartphones and holistic wellbeing.

Methods: The study is part of the baseline of SMART Platform (www.smartstudysask.com), a mobile health and citizen science initiative. 337 Citizen scientists (>18 years) recruited through community engagement provided all data via their smartphones over 8 consecutive days in spring 2017. This included surveys, ecological momentary assessments (EMA) and objective sensory data (e.g. accelerometers). ST accumulation on smartphones was reported via the modified sedentary behaviour questionnaire, and derived objectively via the screen state sensors. Weight status was calculated by International Obesity Task Force cut-points, and mental health measures included a validated wellbeing scale. A mixed-methods analysis is being conducted to determine how a combination of EMA's and quantitative measures inform the association of ST on smartphones with weight status and eudemonic wellbeing.

Results: EMA's determined that ST was the most significant barrier in citizen scientists being active, with ST on smartphones featuring regularly in participant reports utilizing the camera and audio function of their smartphones.

Conclusion: EMA's generate evidence by aligning their findings with traditional quantitative survey and objectives measures, which would be the next step in this study. These innovative methods driven by citizen science can influence policy makers to prioritize geographically-specific active-living policies.

P09B

The Direct Effects of BPA Exposure on Skeletal Muscle Mitochondrial Function and Insulin Sensitivity

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The environmental estrogen, bisphenol A (BPA), has been associated with adverse health effects including skeletal muscle insulin resistance, which is a major contributor to the pathogenesis of type 2 diabetes (T2D). Early skeletal muscle mitochondrial dysfunction and oxidative stress is linked to impaired glucose metabolism and insulin sensitivity. In this study, we investigated the direct effects of BPA on skeletal muscle mitochondrial function and insulin sensitivity. L6 myotubes differentiated for 7 days were treated with increasing concentrations of BPA (0 nM, 1 nM, 10 nM, 100 nM, 1000 nM, 10,000 nM, 100,000 nM) during the last 24 hours of differentiation. Oxygen consumption rate (OCR) and extracellular acidification rate (ECAR) were measured to analyze mitochondrial function and glycolytic activity, respectively. Changes in glucose uptake were measured by a radiometric glucose uptake assay. Insulin signaling and oxidative stress proteins were analyzed using western blot. The OCR of L6 cells decreased with increasing concentration of BPA, in contrast to increased glycolytic activity and glucose uptake. Preliminary data reveal increased phosphorylation of the insulin signaling protein Akt with increasing concentrations of BPA, which ultimately signals to increase glucose uptake. In addition, there appears to be increased expression of oxidative stress markers such as glutathione peroxidase 1, and glutaredoxin 2, which is likely associated with increased mitochondrial dysfunction. These results suggest that acute L6 myotubes exposure to BPA for 24 hours increases glycolysis and glucose uptake, which is likely a compensatory response to the reduced energy production by the mitochondria due to increased dysfunction.

P10A

Bidirectional and Longitudinal Associations Between Maternal Parenting Practices and Children's BMI z-score

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Objective: The longitudinal relationship between obesity risk and parenting practices (general parenting behaviours) not specific to children's diet and lifestyle is unknown. The temporal and bidirectional aspects of this longitudinal relationship were explored.

Methods: Data were from four data collection cycles (at ages six, eight, ten and twelve years) of the Québec Longitudinal Study of Child Development (QLSCD), a prospective birth cohort (N = 1,604; 51% females). A structural equation modelling framework was utilized in order to assess temporal and bidirectional relationships between dimensions of parenting practices (identified from factor analysis of maternally reported parent-child interactions) and body mass index z-scores (zBMI) in a cross-lagged path analysis. Sex, age, maternal education, household income, number of siblings, and the child's temperament (degrees of opposition and hyperactivity/inattention) were controlled for in the analysis.

Results: Three dimensions of parental practices (permissiveness, punishment, and responsiveness) were identified. From the adjusted path analysis, children's zBMI was not significantly associated with mothers' future parenting dimensions. However, mothers' permissiveness with their 6-year old children was positively associated with the children's zBMI at age 8 ($B=0.14$, $p<0.05$). Permissiveness and punishment experienced by children aged 8 were linked with zBMI two years later ($B=0.10$, $p<0.05$; and $B=-0.16$, $p<0.01$, respectively). Parenting dimensions at age 10 were not associated with zBMI at age 12.

Conclusions: While mothers' parenting practices were unaffected by their children's zBMI, parental practices are predictive of future zBMI among their prepubertal children. More in-depth exploration of parenting practices and their potential impact on pediatric weight is needed.

P10B

Body Weight Diversity in Physical Activity Promotion: Perspectives of Women Living with Obesity

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Objective: The purpose of this study was to describe the views of women living with obesity about improving body weight diversity in physical activity promotion.

Methods: Women (M=40 years, range 20-59 years) from across Canada were invited to participate in a semi-structured telephone interview. All women had already participated in an experimental study that showed non-stigmatizing images of individuals with obesity being active. The images were from the Obesity Canada, Rudd Center, and World Obesity image banks. Sixteen women who had experienced weight stigma in the context of physical activity shared what they thought about the images, and expressed their perspective on the broader implication of using non-weight-stigmatizing images in physical activity promotion. Qualitative content analysis of the interview transcripts was conducted to produce the findings.

ABSTRACT DETAILS

Results: Overall, women liked the images and described them as motivating, encouraging, and relatable. Women welcomed more body weight diversity in images related to physical activity, seeing it as a necessary starting point to reduce weight stigmatizing attitudes in the general public. They hoped that these images could challenge stereotypes perpetuated by unrealistic images currently prevalent in physical activity media, and instead show that individuals living with obesity are willing and capable of being active. Concurrently, they expressed some doubt that individuals from the general public would receive the images positively given that weight stereotypes are so ingrained in our society.

Conclusion: Images portraying diverse body sizes in physical activity promotion may be one strategy to address weight stigma in physical activity.

P11A

Adolescent Obesity and Academic Achievement: a Cross-sectional Analysis of the COMPASS Study

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Objectives: Inconsistent evidence exists on whether an academic achievement gap exists by weight status, and the potential role of weight bias (internal and/or external) has been overlooked, particularly at the secondary school level. The purpose of this study was to determine if weight status is associated with academic performance, expectations and aspirations, and whether student perceptions of their weight accounted for differences.

Methods: Cross-sectional analysis was conducted among 66,434 students in grades 9-12 at Canadian secondary schools (Ontario, Alberta, Quebec, British Columbia) that participated in year 6 (2017-2018) of the COMPASS study. Multiple regression models tested body mass index (BMI) and weight perception as predictors of English and Math grades and educational aspirations and expectations. Models controlled for grade, ethnicity and were stratified by sex.

Results: Students at risk of having overweight or obesity and/or with perceptions of "overweight" were less likely to report higher English and Math grades, and aspirations and expectations to achieve postsecondary and postgraduate degrees in comparison to students with BMIs classified as normal weight and/or perceptions of "about the right weight". Results by BMI category were weakened with the addition of weight perception to the models. The effect of weight perception was stronger and more consistent across models in females than males.

Conclusions: Results suggest perceptions of having overweight or obesity partly explain differences in academic achievement found by weight status, particularly among females. Internalized weight bias may discourage youth with obesity from pursuing further education and explain lower education attainment/employment found in other research.

P11B

A patient-centered Weight Related Quality of Life Index to measures the health impact of different obesity interventions

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Background: Mainstream health care for obesity includes lifestyle interventions for weight loss as well as medical and surgical management. Quantifying the overall effects of different interventions is hampered by the heterogeneity of instruments used. Preference-based measures provide a valid method of summarizing across multiple health attributes into one value, which facilitates comparative effectiveness and cost-effectiveness analyses.

Objective: To develop a prototype preference-based index of weight-related quality of life (PBWRQL) for people living with severe obesity.

Methods: A secondary data analysis of the NL-BaSco Study dataset (i.e., A prospective cohort study with several pre and post-bariatric surgery assessments of 201 patients) was performed. Important attributes were identified from the IWQoL-Lite, EQ-5D-3L, and SF12v2 questionnaires completed by the participants at baseline. The extent to which the item formed a linear construct was estimated using Rasch analysis, and the best item was selected using the threshold map.

Results: The sample was young (mean age 43± 9.0) and predominantly female (81.6%). The prototype PBWRQL index consisted of seven attributes (Physical Function, Mood, Usual activity, Pain, Vitality, Shortness of Breath, Swollen Ankles) with three response options per attribute. Regression coefficients consistently decreased between response levels showing that for each item the response options provided the same discriminative ability. A scoring algorithm was estimated using a simple additive formula. PBWRQL demonstrated known-group validity between different clinical subgroups.

Conclusion: This study produced a brief obesity-specific prototype index based on items impacted upon by severe obesity and demonstrate the potential to discriminate the health impact of the condition.

P12A

The Lobbying Activities of Big Food: What Strategies are Being Used to Influence Nutrition Policies in Canada?

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Objectives: To describe the frequency and nature of interactions between Health Canada and industry stakeholders regarding nutrition policies currently being crafted as part of Canada's Healthy Eating Strategy. Importantly, this study aimed to identify the strategies used by food industry actors in their efforts to influence these policies.

Methods: Letters, emails and presentations exchanged between Health Canada and industry stakeholders were acquired from Health Canada's Openness and Transparency website. The content of these documents was reviewed to identify the stakeholders involved and topics discussed. They were also analyzed using an adapted framework developed by Mialon and collaborators to identify the strategies used to influence policy.

Results: Sixty-eight industry stakeholders interacted with Health Canada on 117 occasions between October 2016 and June 2018. Most (92%) of these interactions were industry-initiated. The most active industry stakeholders included Food and Consumer Products Canada (n=13 interactions), the Canadian Beverage Associations (n=9) and the Retail Council of Canada (n=7). Front-of-package labelling was the most discussed topic. In their attempt to influence policy, industry stakeholders were found to reframe the debate on diet and obesity, stress their economic importance, promote deregulation and propose policy substitutions. Industry was also found to shape the evidence base: of the identified citations they used(n=75), many were either unpublished(n=5), not peer-reviewed(n=19) or at least partially funded by industry(n=23).

Conclusion: The Canadian food industry is very strategic in its efforts to influence nutrition policy in Canada. Policymakers and public health advocates should be aware of these strategies to limit industry's undue influence.

ABSTRACT DETAILS

P12B

Protocol for the BE-EMPOWERED Study: Bariatric Outcome Enhancement – Evaluating a Mindfulness-based Program to Optimize Weight-loss and Reduce Eating Disorder Symptoms

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Background: Up to 50% of patients seeking bariatric surgery experience eating disorder (ED) symptoms (e.g., binge eating) which increase risk for sub-optimal weight-loss post-surgery. Mindfulness-based interventions (MBIs) reduce ED symptoms in non-clinical/post-surgical adults; however, no studies have evaluated the impact of MBIs on ED symptoms among surgery-seeking adults.

Aim: To evaluate an MBI for surgery-seeking adults with ED symptoms using a three-phase approach. Phase I: a prospective observational study to evaluate MBI impact on ED symptoms and delineate mechanisms-of-action. Phase II: a qualitative study to evaluate intervention acceptability. Phase III: a wait-list controlled, randomized feasibility trial to determine whether the MBI produces clinically-relevant improvements in ED symptoms.

Hypothesis: Patients who receive the MBI will report greater improvements in ED symptoms relative to control.

Methods: Adults with ED symptoms approved to receive surgery will be recruited from a publicly funded bariatric surgery clinic. Part I: Patients will complete validated measures of ED symptoms pre-(T1)/post-MBI (T2) and at 12-week follow-up (T3). Part II: Patients who complete the MBI will participate in a qualitative interview assessing intervention acceptability. Part III: Patients will be recruited and randomized to MBI or waitlist-control. Measures of ED symptoms will be administered at T1, T2, and T3. Recruitment/drop-out rates and treatment effect sizes will be collected to evaluate feasibility.

Implications: Results will inform design and execution of an adequately-powered efficacy trial of an MBI for reducing eating pathology among patients seeking bariatric surgery. Effective treatments for patients with ED symptoms may improve post-surgical outcomes, including weight-loss and quality-of-life.

P13A

The Influence of Pre-surgical Self-Esteem on Body Image Dissatisfaction and Weight-loss 12-months after Bariatric Surgery

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Background: While body image typically improves following bariatric (weight-loss) surgery, some patients continue to experience body image dissatisfaction (BID) regardless of post-surgery weight-loss. Persistent BID may increase risk for suboptimal surgical outcomes including depressed mood, low self-esteem, and suboptimal weight-loss. Additional research is needed to identify pre-surgical risk factors for persistent post-surgical BID.

Aims: To evaluate whether: 1) pre-surgical self-esteem and depressed mood are associated with BID 12-months post-surgery independent of weight-loss, and; 2) improvements in body image, mood, and self-esteem predict greater 12-month weight-loss.

Methods: Adults approved to receive bariatric surgery self-reported body mass index (BMI) and completed validated measures of weight-related self-esteem, depressed mood, and BID pre- and 12-months post-surgery. Percent excess body weight loss (%EWL) from pre- to 12-months post-surgery was calculated.

Results: Fifty-two adults (79% female; age = 46.46 years, *SD* = 8.87; BMI = 49.04 kg/m^2, *SD* = 10.28) participated in the study. Lower pre-surgical self-esteem predicted greater BID 12-months post-surgery, explaining 13% of variance in BID beyond the influence of depressed mood and %EWL, $F(1,48) = 8.68$, $p = .005$. Improved self-esteem was positively associated with greater %EWL, $b = .016$, $t(42) = 2.52$, $p = .016$. Improved BID did not predict increased %EWL, $p > .10$.

Conclusions: Lower pre-surgical self-esteem was associated with greater BID 12-months after bariatric surgery. Improved self-esteem, but not BID, was associated with greater 12-month %EWL. Pre-surgical self-esteem may represent an important treatment target throughout surgery preparation and recovery to enhance surgical outcomes (i.e., body image, weight loss).

P13B

Associations between Preoperative Psychological Factors and Weight Measures following Bariatric Surgery

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Psychological stress and problematic eating are known predictors of suboptimal weight loss and maintenance following obesity treatment. There is, however, inconclusive evidence of the preoperative contributors to the high variability in weight outcomes post-bariatric surgery. This study evaluated whether *pre*operative depression and disordered eating were associated with *post*operative weight (absolute weight [Kg]; body mass index [BMI]) and weight changes (post – presurgery); and whether *pre*operative depression correlated with disordered eating in bariatric patients. 188 patients undergoing bariatric surgery(77% Women; M[SD] Age=44.3[11.5] yrs; M[SD] BMI=49.3[8.8] kg/m^2) from the REBORN (REsearch on Bariatric care for Obesity tReatmeNt) cohort participated. Patients underwent a medical interview, had their height and weight measured, and completed the Beck Depression Inventory (BDI-II) and the Dutch Eating Behavior Questionnaire (DEBQ) at their 6-month *pre-* and *post*-operative visits. GLMs were performed, adjusting for age, sex and antidepressant use. BDI-II was not associated with weight, BMI or weight changes *post*-bariatric surgery (p's >.05). However, there was a negative association between DEBQ-external eating and weight change (β=-10.21, p=.036) and a trend for a negative association between DEBQ-emotional eating and weight change (β=-6.29, p=.077). Moreover, increased *pre*-operative depressive symptoms was associated with increased *pre*operative emotional (β=6.06, p<.001) and external (β=0.02, p=.002) eating. Preoperative depressive status may not significantly impact weight, BMI nor weight changes 6-months following bariatric surgery. However, *pre*operative emotional and external eating patterns may negatively impact weight loss *post*operatively. Psychological assessment of bariatric candidates should be considered to ensure adequate support of those at risk of suboptimal postsurgical outcomes.

P14A

Medication Use After Laparoscopic Sleeve Gastrectomy: Results from a Bariatric Surgery Cohort Study

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ABSTRACT DETAILS

Background: Following bariatric surgery, medication use changes as patients experience weight loss and improvement or resolution of obesity-related medical conditions. Data on changes following laparoscopic sleeve gastrectomy (LSG) are limited.

Objective: To examine changes in: patient's self-reported use of antidepressants, analgesics, anxiolytics/sedative/hypnotics and laxatives compared to baseline; and changes in Quality of Life (QoL) over a two year period.

Methods: A retrospective study of data from a single-center. A nurse-practitioner collected medication use data on a medication reconciliation and data-extraction form developed for the study. Data were analyzed by general linear regression with generalized estimating equations to control for the intracorrelation among observations due to the longitudinal nature of this study. Outcome measures included: changes in medication at one, three and every six months to two years;; and QoL data via the Short Form (SF)12v2 questionnaire.

Results: 201 patients who underwent LSG surgery between May 2011 and July 2014 were enrolled and followed for two years. Compared to baseline: the use of antidepressants, anxiolytics/sedatives/hypnotics and analgesics decreased by 30 to 40% as early as six months post-surgery with continued decreases to two years ($p<.05$); while use of laxatives increased three-fold during the follow-up study period ($p<.05$). At two-years, the SF12 physical 42.9(SD6.8) and mental summary scores 53.9(SD12.1) were at or approaching Canadian normative scores ($p< .05$).

Conclusion: In the two years after LSG, patients reported a *reduced use* of antidepressants, anxiolytics and analgesic medications and an *increased use* of laxatives immediately after surgery that continued during two years of follow-up.

P14B

Early Weight Loss in Adolescents Following Bariatric Surgery Predicts Weight Loss at 12 and 24 Months

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Background: Growing evidence supports the efficacy of paediatric bariatric surgery. However, there is a paucity of data examining adolescent outcomes post-surgery. Among adults, studies have shown that early weight loss is associated with long-term weight loss. Therefore, the aim of our study was to investigate the association between early weight loss at 3 months (3M) with longer term weight loss at 12 months (12M) and 24 months (24M) in adolescents post-surgery. We hypothesized that patients who have greater weight loss within the first 3M will have greater weight loss at 12M and 24M post-surgery.

Methods: A retrospective chart review of bariatric surgery patients (n=28) was conducted. Anthropometric measurements at baseline, 3M, 12M, and 24M were analyzed.

Results: Percent of excess weight loss (%EWL) at 3M, 12M and 24M were 33.6 ± 11.3%, 55.0 ± 20.5% and 55.1 ± 27.1%. %EWL at 3M was positively associated with %EWL at 12M and 24M ($p<0.05$). Receiver operating characteristic curve results identified a cut-off of ≥ 30% EWL at 3M predicted successful weight loss, defined as ≥ 50% EWL, at 12M and 24M.

Conclusion: These findings demonstrate that majority of weight loss among adolescents occurs within the first postoperative year. Greater %EWL by 3M post-surgery predicts successful and sustained weight loss over time.

P15A

Extracurricular Activity Involvement and Body Image in Youth with Severe Obesity: The Mediating Role of Social Life

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Background: Youth with obesity are prone to social exclusion and body dissatisfaction compared to their average weight peers. Past research has identified links between extracurricular activity (ECA) involvement, positive social interactions and positive body image in community samples, however these links remain to be tested in clinical samples of youth with severe obesity.

Objective: The present study explored the prevalence of ECA involvement (physical and non-physical activities) in a clinical sample of youth with obesity, and examined whether ECA involvement was related to body image (weight and appearance esteem) and social life (i.e. positive social experiences with peers).

Method: Participants were 209 adolescents with severe obesity (*M* age = 15.05; 50% female) who completed measures as part of a baseline assessment at a tertiary care weight management program.

Results: 70.2% of participants reported participating in physical activities (PAs) and 56% reported participating in non-PAs. As hypothesized, weight esteem and social life scores were higher in those who participated in PA vs. those who did not ($p = .002$). Mediation analyses revealed that social life mediated the relation between PA participation and weight esteem. That is, PA participation was positively related to social life, which was in turn, positively related to weight esteem.

Conclusion: Social life may be a mechanism by which PA participation positively influences body image in youth with severe obesity. Findings could inform weight management programs for youth with obesity who are at risk for social inclusion and body dissatisfaction.

P15B

Designing and Developing a Childhood Healthy Weights Family-Based Healthy Living Program: A Stakeholder Guided Approach

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Objective: To develop a childhood healthy weights family-based program (ages 8 to 12; BMI for age > 85th percentile) using stakeholder consultation to identify key components of the program design framework and implementation considerations.

Methods: A comprehensive consultation process was undertaken to inform the program design framework. Phase I consisted of a literature review, interviews with staff from clinical childhood healthy weights programs and review of existing programs to inform the development of a draft program design framework. In Phase II a series of consultations with health professionals, recreation, sport and education sector professionals on the draft framework was undertaken through 1) province-wide regional community consultations 2) webinars and a follow up survey.

Results: Phase I identified key components including 1) minimum of 26+ contact hours 2) group sessions and digital health component 3) flexibility in delivery 4) behaviour change skills 5) topics addressing healthy eating, physical activity, sedentary time, positive mental health and sleep 6) curriculum and facilitation training. Phase II consultations confirmed the key components identified in Phase I and additional key themes emerged including: 1) consideration of weight bias and weight stigma in both program delivery and staff training 2) implementation considerations such as

centralized screening and enrolment, regional context, scope of practice, provincial program alignment and integration, and barriers and enablers such as transportation, childcare, recreation passes.

Conclusion: A early intervention childhood healthy weights program design framework was developed based on comprehensive stakeholder consultation that confirmed the program's key components and identified constructive implementation considerations.

P16A

Is Obesity a Disease? a Qualitative Study Examining the Perceptions of Pediatricians

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Although the Canadian Medical Association recognized obesity as a disease in 2015, there is ongoing disagreement about its status among healthcare providers. The goal of this qualitative study was to document the perceptions and reasoning of pediatricians on whether obesity was a disease. Pediatricians (n=7) were recruited through general advertisement to participate in a semi-structured interview, which were audio recorded and transcribed. Inductive thematic analysis was used to code the data. Participants practiced in urban settings, varied in years of experience (6 to 40 years) and patient caseloads with obesity (<10 to 100%). The findings from this study demonstrated a lack of consensus among pediatricians on how to qualify obesity. Three different positions were identified: (1) obesity was viewed as a disease because of the mental, physical, and social burden it has on a person; (2) obesity was a 'risky state of health' because of the potential development of co-morbidities; and (3) obesity was a continuum and only the most severe form was a disease. Pediatricians with more experience in weight management were more likely to identify obesity as a disease. Meanwhile, participants who perceived it as a state of health stated the shift away from weight to focusing on co-morbidities was to reduce stigmatization. Despite differences in perceptions, their approach to weight management was fairly consistent focusing on lifestyle changes for the families. Findings from this study confirm ongoing disagreements about the nature of obesity; however the differing perspective did not seem to impact their clinical management of weight.

P16B

The Relationship Between Vitamin D, Calcium and High Sensitivity C Creative Protein in Adolescents Living with Severe Obesity

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Background: It is known that vitamin D impacts calcium absorption and vitamin D deficiency is linked to increased inflammation.

Objectives: While nutrient deficiencies have been reported in individuals with obesity, the purpose of this study was to describe the vitamin D levels of adolescents living with severe obesity, and determine its relationship with calcium, ferritin and high sensitivity C reactive protein (HSCRP).

Methods: Baseline blood samples were collected in adolescents with a body mass index (BMI) of >35 kg/m^2 with a major co-morbidity, or a BMI >40 kg/m^2 with co-morbidity. The relationships between Vitamin D, calcium, ferritin and HSCRP were analyzed using Pearson correlations. The average age was of 15 ±1.5 years old, with a BMI of 45.5 ± 8.1 kg/m^2.

Results: Of the 20 patients, 6 participants had sufficient Vitamin D levels, while 12 had insufficient levels (30-50nmol/L) and 2 were deficient (<30nmol/L). There was no significant relationship between Vitamin D and HSCRP, calcium, or ferritin. However, there was a relationship between HSCRP and ferritin (r= 0.64 p=0.003).

Conclusion: The results illustrate the need to screen patients living with obesity for vitamin D deficiency and supplement as needed. The relationship between vitamin D, inflammatory markers and calcium absorption remain unclear and warrant further investigation.

P17A

Sex Differences in Mental Health Issues Among Adolescents Living with Severe Obesity

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Background: Mental health issues have been reported in adolescents with severe obesity but sex differences are less known.

Objectives: The purpose of this study was to determine if there were any sex differences on the impact of weight on quality of life, body shape preoccupation, and anxiety-related disorders for adolescents living with severe obesity.

Methods: All participants were referred by a health professional if they had a body mass index (BMI) of >35 kg/m^2 with a major co-morbidity, or a BMI >40 kg/m^2 with co-morbidity. At baseline, adolescents completed the Impact of Weight on Quality of Life, the Body Shape Questionnaire, and the Revised Version of the Screen for Child Anxiety Related Emotional Disorders. Height and weight were measured by a clinical nurse.

Results: Descriptive statistics and an independent samples t-test were conducted. Participants (N=21; 11 females, 10 males) were 15 ± 1.4 years old, with severe obesity (BMI: 44.9 ± 9.1 kg/m^2 in females and 48.6 ± 10.5 kg/m^2 in males). Females reported a greater impact of weight on their quality of life in physical comfort (p=0.021), greater body shape preoccupation (p=0.005) and greater traumatic stress disorder scores than males (p=0.022).

Conclusion: Adolescents with severe obesity have mental health issues and females appear to be more adversely affected by their weight than males. Our findings highlight the importance of including mental health assessments, mental health support and more research on body image, functional issues and potential pain management especially with female adolescents affected by severe obesity.

P17B

Does Metformin Therapy Influence the Effects of Intensive Lifestyle Intervention? Exploring the Interaction Between First Line Therapies in the Look AHEAD Trial

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Aims: Metformin and lifestyle intervention are frequently prescribed together as first-line treatments for type 2 diabetes. However, little is known about their interplay. We investigated if the effects of a lifestyle intervention on glycemia, body mass and cardiorespiratory fitness (CRF) were influenced by metformin therapy.

Methods: Participants randomized to intensive lifestyle intervention (ILI) or diabetes support and education (DSE) from the Look AHEAD trial were categorized into metformin therapy vs. no metformin. A two-by-two ANCOVA (i.e., metformin therapy vs. no metformin by ILI vs. DSE) was used

to examine the changes in glycated hemoglobin A1C, fasting plasma glucose (FPG), body mass, and CRF over the first year post-randomization, with a primary interest in the metformin-by-lifestyle interaction effect.

Results: Data from 1,982 participants were analyzed. There was a significant metformin-by-lifestyle interaction effect on A1C (p=0.031) and FPG (p=0.043), resulting from larger reductions associated with metformin therapy compared to no metformin following DSE, but slightly smaller reduction associated with metformin therapy compared to no metformin following ILI. Metformin therapy was associated with smaller weight loss (-4.7±6.2 vs. -5.7±6.3 kg; main effect: p=0.001) but not with differential CRF changes when compared to no metformin.

Conclusions: The interaction between metformin therapy and lifestyle intervention on glycemia highlights the complicated nature of combining therapies. While the small influence of background metformin therapy on intensive lifestyle intervention should not discourage the concomitant use of these therapies, our results showed that, for individuals undergoing intensive lifestyle therapy, background metformin therapy conferred little additional benefits.

P18A

Accuracy of a Portable Indirect Calorimeter for Measuring Resting Energy Expenditure in Women with Class II/III Obesity

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Background: Women with obesity could benefit from targeted energy recommendations for body weight management. These are determined by total energy expenditure, of which the largest component is resting energy expenditure (REE). However, REE calculations are often inaccurate. As such, portable indirect calorimeters have become available to facilitate REE measurement in the clinical setting.

Objective: To assess the accuracy of a portable indirect calorimeter to measure REE in women with class II/III obesity.

Methods: Women recruited from the local community underwent two separate assessments where REE was measured by FitMate GS (portable indirect calorimeter) and whole body calorimetry unit (WBCU, as the reference method). Accuracy was determined using paired t-test and Bland-Altman analysis (bias: average difference; limits of agreement bias ± 1.96 standard deviations) of REE measurements taken on the same day. Repeatability of measurements taken on different days was assessed by intraclass correlation coefficient (ICC).

Results: Twenty-six participants (BMI=42.6 ± 8.5 kg/m^2; age=34.5 ± 8.8 years) were included. Average FitMate GS REE was lower than WBCU REE (1720 ± 317 versus 1962 ± 306 kcal/day respectively, p<0.001); limits of agreement ranged from -609 to 126 kcal/day (-29.8 to 5.2%). FitMate GS measurements from both visits were correlated (r=0.745, p<0.001), median difference was 35 kcal/day (IQR: -190 to 227 kcal/day: min=770, max=355 kcal/day), and ICC was 0.698 (moderate reliability).

Conclusions: The FitMate GS did not provide accurate or reliable assessment of individual energy recommendations for this sample of women with class II/III obesity.

P18B

Exploring How a Mobile Health Application Effects the Transition to Independent Exercise in Adults Diagnosed with Type 2 Diabetes

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Objectives: The primary objective is to explore how a mobile health application (mHealth app) effects motivation and self-efficacy toward exercise adherence in adults with type 2 diabetes (T2D). A secondary objective is to investigate whether a supervised 8-week education and exercise program improves physical function, body composition, blood glucose levels and blood pressure.

Methods: Twenty-five adults (≥ 18 years) are enrolling in the 8-week "Get Fit for Active Living with Diabetes" (GFAL-D) program. Inclusion criteria include diagnosis of T2D, own a smartphone and not participating in regular exercise. Physical function using the Senior Fitness Test, body mass index (BMI), waist circumference, blood glucose, blood pressure, motivation using the Behavioural Regulation in Exercise Questionnaire (BREQ-2) and self-efficacy using the Diabetes Empowerment Scale (DES) are measured before and after the program. Individual in-depth semi-structured interviews will be conducted 1-month, 6-months and 12-months after the program to explore how adults with T2D use the mHealth app and manage their T2D.

Results: Baseline characteristics (mean age=66 years) include a mean BMI of 35.4 kg/m^2 and mean blood glucose of 7.2 mmol/L. Baseline physical function measures for the 6-minute walk test (6MWT) are 405 m for women (n=2) and 450 m for men (n=1). Participants reported mainly self-determined motivation and moderate scores of self-efficacy prior to the 8-week program.

Future Directions: The present study will implement a mHealth app as a potentially effective strategy to increase long-term exercise adherence in adults with T2D. The findings may improve or implement effective community-based exercise and education programs.

P19A

Food and Weight Monitoring in Undergraduate Students: Examining the Relationship Between Monitoring and Eating Disorder Risk

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Dietary and weight monitoring are significant predictors of long-term weight loss as they allow individuals to develop greater self-awareness of their eating behaviours. However, these monitoring behaviours can also lead to concerning trends such as restrictive eating patterns and increased concern about weight and shape, particularly in young adults. The purpose of this study was to examine how different types of monitoring styles (i.e., those who do not monitor, those who monitor food or weight only, and those who monitor both food and weight) differ on measures of eating disorder risk. Ninety-one undergraduate students (M_{age} = 20.74[±3.93]), primarily female (63.7%) and Caucasian (53.8%) participated in the study. They completed a battery of psychosocial measures including a demographics questionnaire to determine monitoring type and the Eating Disorder Examination Questionnaire (EDEQ). A series of ANOVAs revealed significant differences between groups for the restraint, $F(3, 86) = 5.10$, $p < .01$, and weight concern, $F(3, 84) = 4.38$, $p < .01$, EDE-Q subscales. Bonferroni post-hoc tests further indicated that those who monitor food and weight may be at particular risk for eating disorder symptoms relative to those who either do not monitor or those who monitor weight or food only. These results suggest that specific baseline patterns of diet and weight monitoring in young adults may be indicative of eating disorder risk. As such, it is important to consider these findings when engaging youth in monitoring behaviours for weight gain prevention.

ABSTRACT DETAILS

P19B

Developing the Live 5-2-1-0 Mobile App Using Human-centered Design and Co-creation to Promote Healthy Behaviours in Children

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Background: SCOPE, a community-based multi-sectoral childhood obesity prevention initiative, promotes the Live-5-2-1-0 message: 5+ vegetables/fruits; <2 hours of screen time; 1+ hour of active play; and 0 sugary drinks, every day. A Live 5-2-1-0 Toolkit for healthcare providers (HCPs) is currently being piloted in two pediatric clinics.

Objective: To co-develop a mobile app that supports healthy behaviour change via shared decision-making between children, parents and HCPs.

Methods: Using human-centered design and a participatory approach, focus groups (FG) were held with children, parents, and HCPs. Thematic analysis and descriptive statistics were used for qualitative and quantitative data, respectively.

Results: 14 children (average age 10.2), 12 parents (age 20-49) and 18 HCPs participated. FG #1 focussed on app conceptualization and a key theme was using internal motivation and accountability to empower children to adopt healthy habits. FG #2 engaged participants in co-creation where they identified gamification, goal setting, daily steps, family-based rewards and daily notifications as desired features. HCPs wanted a baseline behaviour assessment and to see users' behaviour change and goal progress. Children/parents tested an app prototype in FG #3 and reported ease in completing tasks (average score 6.19/7-point Likert scale). Participants (N=9) liked most (28/37) suggested rewards, and found 76/96 suggested daily steps realistic to do. Participant suggestions included strategies to maintain users' interest and content that further motivates healthy behaviour change.

Conclusions: Co-creating an app with children, parents and HCPs is feasible. Future research will pilot test the app in pediatric clinics to assess usability and effectiveness.

P20A

Do Subjects with Obesity Have Poorer Function, Pain, and Stiffness Following Total Knee Arthroplasty (TKA): a Retrospective Cohort of 1,158 Patients One Year After TKA

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Background: Obesity is a common risk factor for onset and progression of OA. Total knee arthroplasty (TKA) is the most common treatment for end-stage knee OA. We investigated the association between different obesity classes with patient reported outcomes among patients who underwent TKA.

Methods: A total of 1,158 patients who underwent primary unilateral TKA were extracted retrospectively from a large provincial database. Patients were stratified into five body mass index (BMI) groups. Patient-reported pain, function, and stiffness were assessed preoperatively, and again at 3 and 12-months post-surgery using the Western Ontario and McMaster Osteoarthritis Index (WOMAC). The association between BMI and mean change of WOMAC subscales over the time intervals was assessed using a mixed linear effect model adjusted for age, sex, comorbidities, complications, and zone of the service.

Results: Mean age was 65.8 years (SE=8.7), and 67.7% were female. A significant improvement ($p<0.001$) in patient-reported pain, function, and stiffness, regardless of BMI groups, was observed from baseline to 3 and baseline to 12 months. Our results also revealed different trajectories of improvement for WOMAC subscales following TKA among all patients. While pain and function improved within 3 months, stiffness improvement occurred between 3 to 12 months following TKA.

Conclusion: The findings indicate that all BMI groups had significant improvement in outcomes following TKA. Given that patients with BMI classified as obese obtained similar benefits as patients with BMI classified as normal weight, surgery in this population should not been denied solely based on BMI.

P20B

Social Physique Anxiety Predicts Physical Activity, But Not Sedentary Time, in Adults Living with Severe Obesity

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Background: Insufficient physical activity (PA) and excessive sedentary time (ST) are independent risk factors for several chronic diseases. Adults living with severe obesity are one segment of the population that report particularly low PA and high ST. Theoretical perspectives and empirical research suggest that concerns about the physical self being negatively evaluated by others (i.e., social physique anxiety; SPA) may lead to avoidance of PA and engagement in isolated ST.

Objective: Examine SPA as a correlate of moderate-to-vigorous PA (MVPA), light PA (LPA) and ST in adults with severe obesity.

Methods: 41 adults (M_{age}=50.9±13.7 years) with a body mass index ≥35 kg/m^2 (M=44.5±7.9 kg/m^2) completed a survey and wore an accelerometer for 7 consecutive days. Hierarchical linear regression models were run, controlling for sociodemographic variables correlated at ≥.20 with main study variables. **Results:** SPA explained 19.9% of the variance in MVPA (Step 2 $p<.01$) beyond age, employment and civil status, whereby greater levels of SPA were associated with lower levels of MVPA (beta=-.45, $p<.01$). SPA explained 7.7% of the variance in LPA (Step 2 $p=.04$) beyond sex, though SPA was not statistically significantly associated with LPA (beta=-.28, $p=.07$). SPA did not explain a significant proportion of the variance in ST (Step 2 $R^2=.16$, $p=.09$) beyond age and sex.

Conclusions: SPA may inhibit motivation to engage in PA because of bias, stigma, and discrimination related to excess weight. There is a need to understand factors could help adults living with severe obesity feel comfortable while engaging in PA.

P21A

Effects of Familial and Peer Weight Teasing on Screen Time in Youth

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Objective: To examine if weight teasing is related to screen time; and if weight status moderates the association between experiences of weight teasing (peer and parent) and screen time.

Methods: A Canadian sample of youth (N =1197; 60% female) aged 13.51 (1.11) completed questionnaires about demographics, weight teasing and screen time. Screen time was assessed by the amount of time youth spent on the computer, watching TV, and playing video games; Weight teasing was assessed using two subscales of the McKnight Risk

ABSTRACT DETAILS

Factor Survey IV. A hierarchical moderated multiple regression analysis was conducted for this cross-sectional sample.

Results: As parent and peer teasing increased, screen time also increased (b = 0.43, b = .69, respectively, p < .001). Weight status moderated the association between parental weight teasing and screen time (b = -.61, p <.01) but not for peer weight teasing. For youth of average weight, the association between parental weight teasing and screen time is more pronounced than for youth with higher weight status. All youth, regardless of weight status showed a similar, strong positive association between peer weight teasing and screen time.

Conclusion: Youth who report more peer weight teasing are more likely to partake in screen time. The impact of the association for parent weight teasing and screen time differs based on the child's weight status; suggesting that parental weight teasing has a greater impact on screen time behaviour for youth classified as average weight.

P21B

Obesity-associated Microbial Dysbiosis and Adipose Tissue Dysfunction are More Severe in C57Bl/6 Male Mice Fed High Fat versus High Fat/High Carbohydrate Obesogenic Diets

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Objectives: To compare the effects of two commonly used obesogenic diets on the health of the intestinal microenvironment and adipose tissue (AT) dysfunction in male mice during obesity development.

Methods: 3 week old male C57Bl/6 mice were fed diets comprised of 17% fat (%kcal; LFD), 45% fat (%kcal; 45HFD), or 60% fat (%kcal; 60HFD) for 12wks and metabolic dysfunction, AT inflammation, and intestinal health were assessed.

Results: Mice consuming 60HFD gained more weight and demonstrated more severe epididymal AT dysfunction [e.g. increased crown-like structures (macrophage infiltration) and serum adipokines (leptin and resistin)] compared to 45HFD and LFD. Glucose intolerance and HOMA-IR were significantly higher in the 60HFD group compared to 45HFD and LFD. Fecal microbial dysbiosis was also more severe in the 60HFD group compared to the 45HFD and LFD, including reduced phylogenetic diversity and *Akkermansia muciniphila* abundance. Colon mRNA expression of toll-like receptor 2 (TLR2) and interleukin 6 (IL-6) were significantly increased by 60HFD, while tight junction protein expression (JAM-A) was decreased, compared to LFD and 45HFD. Both HFDs increased colon tumor necrosis factor (TNF-α) and monocyte chemoattractant protein (MCP-1) mRNA expression. Serum lipopolysaccharide binding protein, a biomarker of endotoxemia, was increased by the 60HFD compared to 45HFD and LFD.

Conclusions: Despite interchangeable use of different obesogenic diets in obesity research (high fat or high fat/high carbohydrate), these diets induce different effects on obesity-associated intestinal and AT dysfunction. This study highlights the importance of defining the composition of obesogenic diets used in obesity research to ensure reproducibility between studies.

P22A

Palatable Food Dampens the Long-Term Behavioral and Endocrine Effects of Juvenile Stressor Exposure but May Also Provoke Metabolic Syndrome in Rats

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The juvenile period is marked by a reorganization and growth of important brain regions including structures associating with reward seeking behaviors such as the nucleus accumbens (NA) and prefrontal cortex (PFC). These changes are impacted by juvenile stress and may lead to a predisposition to psychopathologies and abnormal development of brain reward systems. Coping mechanisms to reduce stress such as increased consumption of calorie-rich palatable foods can lead to metabolic disorders. In this study, we examined whether stressors during the juvenile period (postnatal days 27-29) led to increased caloric intake when a palatable diet was accessible, and whether this diet attenuated anxiety-like characteristics and stress responses while leading to a propensity towards obesity in adulthood. We also investigated alterations in mRNA expression of dopamine receptors in the NA and PFC. Results showed that rats that were stressed during the juvenile period displayed higher social anxiety and a sensitized corticosterone response as adults and these effects were attenuated by access to the palatable diet. Nevertheless, rats that experienced juvenile stress and consumed a palatable diet showed greater adiposity in adulthood. Interestingly, the same group displayed greater mRNA expression of dopamine receptors at the NA. This suggests that access to a palatable diet mitigates the behavioral and endocrine effects of juvenile stressor exposure in adulthood, but at the cost of metabolic imbalances and a sensitized dopaminergic system.

P22B

Determinants of Health-related Quality of Life in Thai People Living with Obesity

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Background: Data on health-related quality of life (HRQoL) in Thai people living with obesity(PwO) remains limited. The goal of the study was to describe HRQoL and its predictors in this population.

Methods: Thai PwOs (BMI>23 kg/m^2, age>18 years) were enrolled at an academic medical center in Bangkok, Thailand from 2015-2017. HRQoL was evaluated using Thai versions of 1)WHO Quality of Life (WHOQOL-BREF) and 2)EQ-5D-5L, which included a utility score and a visual analogue scale (VAS).

Results: 125 PwOs were enrolled (age41.7±12.7years, 65.6%female, BMI36.9±7.8kg/m^2) and stratified into 4 groups: 1) BMI<30kg/m^2 (n=20(16%); mean BMI27.8±1.6 kg/m^2); 2) BMI 30-35kg/m^2(n=43(34.4%); mean BMI32.6±1.4 kg/m^2); 3) BMI35-40 kg/m^2 (n=22(17.6%); mean BMI36.6±1.4 kg/m^2); and 4) BMI>40 kg/m^2(n=40(32%); mean BMI46.4±6.0 kg/m^2). EQ-5D-5L VAS scores were significantly lower in PwOs with higher BMI (0.77±0.17 vs.0.73±0.13 vs.0.71±0.17 vs.0.59±0.21,p<0.001), with all groups reporting lower scores than national average (0.794). More PwOs in higher BMI groups reported severe/very severe problems in EQ-5D-5L anxiety/depression domain (0% vs. 2.3% vs. 4.5% vs. 5%,p=0.015).Total WHOQOL-BREF score did not differ among different BMI groups(92.9±14.9 vs.90.8±9.4 vs.90.6±14.2 vs.87.1±13.4, p=0.426), as well as EQ-5D-5L utility score(0.84±0.16 vs.0.87±0.11 vs.0.86±0.14 vs.0.81±0.18, p=0.323). Multivariate analyses revealed that BMI was the only independent predictor of EQ-5D-5L VAS scores (β -0.65,95%CI-1.053,-0.242; p=0.002), while having received ≥ 12 years of education was the only independent predictor of total WHOQOL-BREF scores (β 7.57,95%CI 2.22,12.92; p=0.006).

ABSTRACT DETAILS

Conclusions: Among Thai PwOs BMI had a dose-dependent negative effects on HRQoL by EQ-5D VAS and anxiety/depression domain, while education was the only independent predictor of WHOQOL-BREF scores.

P23B

The Effect of Peer Support on Knowledge and Self-Efficacy in Weight Management: a Prospective Clinical Trial in a Mental Health Setting

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Introduction: Increased body weight is common in people with serious mental illness due to pharmacological side effects. Strategies for weight management may include group education, peer support, and frequent follow up. This study evaluated the effects of group peer support on body weight, Confidence and Conviction (C&C), diet quality and health-related quality of life. Clients participated in a 12-month education and peer support bi-weekly program.

Methods: Fifteen participants [aged 51.7 +/- 12.2 years; 5 male 10 female] who were unable to achieve and maintain a 5% weight loss were recruited from a Metabolic and Weight Management Clinic (MWMC) at a mental health care facility. Weight, C&C, a Dietary Screener Questionnaire (DSQ), and the 36-item Short Form Survey Instrument (SF-36) were collected at baseline, 3, 6, and 12 months.

Results: Subscale scores from the SF-36 showed a significant improvement in *Vitality/Energy* (-3.823, p=0.003) and *General Health Perception* (-2.919, p=0.014) at 3 months. There was a significant decrease in *Physical Functioning* (-2.391, p=0.048) and a significant improvement in *Pain* (-2.885, p=0.023) from baseline to 12 months. There were no significant changes found for weight, C&C, or the DSQ.

Discussion: Mental Health clients often have comorbid health conditions with many barriers in place that makes behavior change difficult. Additional variables that are not easily modified may be necessary to account for in order to obtain significant findings. Including factors such as socioeconomic status, food security, and mental wellness are not easily modified and are beyond the scope of the MWMC and this study.

P24A

Supporting Healthy Weights for Canadian Children and Families: Evaluation of the Scale-up of Healthy Together

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Aim: Healthy Together© (HT) is a program that brings Canadian families together to support healthy eating and physical activity as a pathway to healthy weights. Each HT session includes a learning activity, cooking and eating together, and physical activity. In partnership with communities across Canada, community-based organizations participated in scaling-up HT by integrating HT into existing core service programs for vulnerable families. The purpose of this presentation is to report findings from the HT scale-up and its effectiveness.

Methods: Trained facilitators delivered HT in 29 organizations providing services to low income, immigrant/refugee, and Indigenous families. Data were collected using questionnaires with participants and facilitators, and telephone interviews with Directors. Quantitative data were analyzed using descriptive statistics and qualitative data were content analyzed.

Results: Community organizations delivered up to 30 HT sessions. Parents/caregivers (n=309), children and adolescents (n=193) who participated in HT reported improvements in physical activity and healthy eating, and a high level of satisfaction with the HT program. Facilitators (n=69) described HT as highly engaging, easy to implement and effective in increasing knowledge of healthy eating (91.3%) and physical activity (78.3%). Directors (n=16) reported that the flexibility of the HT model facilitated integration into existing programs. They pointed to the need for resources to support efforts to seek ongoing financial support and accessible facilitator training to ensure sustainability of the program.

Conclusion: Further expansion of HT holds potential for supporting healthy lifestyles among diverse and vulnerable families to promote health weights among Canadian children and adolescents.

P24B

Healthy and Happy: Creating and Evaluating a Catalyst to Improve the Health of University Students via an Online Training System

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University students are facing unique, significant physical and mental health challenges. Additionally, they are spending more and more of their time online and are using online platforms to access mental health resources; consequently, there is a timely opportunity to explore the potential of online happiness interventions to improve happiness among university students.

The purpose of this research was to test if an online happiness intervention can increase self-reported happiness among university students. The primary outcome was self-reported happiness. Secondary outcomes included self-reported lifestyle measures such as weight, confidence in goal setting abilities, exercise, sleep, stress, tobacco use, illicit drug use, alcohol consumption, number of close friends, leisure activities, and gratitude.

A total of 114 students participated in this four-week, online study. Data were collected through online self-report questionnaires. Comparisons of pre and post scores on the primary and secondary outcomes measures were conducted and qualitative feedback about the video was collected. Evaluation consisted of online self-report questionnaires.

This study demonstrated that not only are students interested in participating in online programs to boost self-reported happiness, but it is also possible to increase the self-reported happiness of university student via online videos. All five measures used to assess self-reported happiness revealed an increase in scores over the duration of the study; the increase was statistically significant for four of the five measures ($p < 0.05$).

The results provide new, valuable information to add to the body of work that suggests that happiness interventions may improve the self-reported happiness of undergraduate university students.

P25A

Exploring the Effects of Telemedicine on Bariatric Surgery Follow-Up: A Matched Case Control Study

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Objective: Bariatric surgery (BS) is considered a long-term treatment for morbid obesity. However, post-operative care and management is essential to avoid complications. Attending routine follow up appointments can be challenging for patients that live in rural areas with limited access to healthcare resources. Telehealth offers a potential solution to these challenges. The goal of this study is to compare 1) post-BS appointment adherence, and 2) psychosocial and BMI outcomes in patients that did or did not use telehealth.

Methods: We examined data from 192 (96 telehealth and 96 non-telehealth) patients from Toronto Western Hospital (TWH) BS Program matched on gender, age, date of surgery, BMI, and distance from appointment site. Psychosocial and demographic variables including rurality index (RIO) were collected and analysed.

ABSTRACT DETAILS

Results: On average, telehealth and non-telehealth users were 383 ± 198 km and 18 ± 16 km away from TWH, respectively. The RIO for telehealth group was significantly higher than their non-telehealth counterpart ($p<0.001$), indicating that telemedicine users were predominantly from non-urban areas. Appointment attendance rates, BMI and psychosocial measures did not exhibit any statistically significant difference between the two groups.

Conclusion: This study demonstrates that telehealth services can establish comparable post-operative management and appointment adherence rates to patients in non-urban centres. Therefore, our results suggest that telehealth could help overcome geographical barriers to provide quality healthcare services to more remote regions. Findings from this study can help examine readiness of rural communities for telehealth, and aid in successful implementation of such services.

P25B

Women's Perceptions of Gestational Weight Gain: a Systematic Review and Thematic Synthesis

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Background: The majority of women experiencing a pregnancy gain weight in excess of recommended amounts, a risk factor for a number of adverse outcomes for both mothers and their children. Women typically endorse the health of the baby as being of the utmost priority for them, and prenatal care providers are in a good position to help women manage their gestational weight gain (GWG), as their advice has been shown to influence not only women's personal targets for GWG but also their actual GWG. When clinicians adopt a patient-centered approach in trying to help patients make changes in their health behaviours, the odds of adherence have been shown to increase by 2.16. However, women's perceptions of GWG, including awareness of and familiarity with the current guidelines, personal opinions and cultural beliefs regarding GWG, and feelings towards GWG, are not well understood. This has implications for clinicians providing prenatal care and for women experiencing a pregnancy. The purpose of this review was thus to gain an understanding of pregnant women's perceptions of GWG, from a wide variety of types of studies, including quantitative surveys, qualitative and mixed-methods studies.

Method: The Mixed Methods Assessment Tool (MMAT) was used to critically appraise the studies. Thematic synthesis, an inductive and integrated synthesis approach, was chosen in order to provide a contextually based understanding of pregnant women's perceptions of GWG.

P26A

The Role, Attitudes, and Actions of Employers Towards People with Obesity: Results from the ACTION Study Canada

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The ACTION Study Canada investigated perceptions, attitudes, and perceived barriers towards obesity management among people with obesity (PwO), and employers. Employer perceptions of obesity, support provided to PwO, and perceived value of wellness programs (WPs) are described.

Adult PwO (BMI ≥ 30 kg/m^2 by self-reported height and weight. N=2000) and employers (N=150) completed online surveys between August 3 and October 11, 2017.

Half of employers state that they recognise obesity as a serious health condition, believe the work environment contributes to obesity, and consider themselves important partners in weight management. Almost one-third (32%) of employers believe the weight of PwO interferes with job performance and 32% believe wanting to improve job performance is a motivator to lose weight (vs 5% of PwO). Half of employers state improving job performance as a motivator for offering WPs, and claim to offer more WPs than PwO believe are available. Employers believe a smaller proportion of PwO participate in WPs compared with all employees. Only 32% of PwO (vs 77% of employers) believe WPs contribute to successful weight loss, suggesting a discrepancy in their perceived value. Only 45% of employers track the impact of WPs offered.

Employers recognize the importance of obesity and consider themselves important partners in weight management. However, there is a disconnect between employers and PwO regarding awareness of existing WPs, their effectiveness, and perceived value to PwO. Targeted offerings that deliver evidence-based interventions and rigorous tracking may improve the uptake and impact of employer support.

P26B

Implicit Weight Bias as a Barrier to Effective Clinical Care: Results From the ACTION Study Canada

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Inaccurate beliefs about obesity create implicit weight bias. ACTION Study Canada is the first national Canadian survey investigating perceptions, attitudes, and perceived barriers towards obesity management among people with obesity (PwO) and healthcare providers (HCPs).

Adult PwO (BMI ≥30 kg/m^2 by self-reported height and weight. N=2000) and HCPs (N=395) completed online surveys between August 3 and October 11, 2017.

While PwO and HCPs agree obesity is a chronic medical condition, 74% of PwO believe weight management (WM) is completely their responsibility (51% cite this as a reason for not discussing WM with their HCP). Only 21% of PwO (vs 78% of HCPs) believe HCPs should contribute to successful WM efforts. PwO report high levels of helplessness and 83% do not believe Canadian society or healthcare systems meet their needs. Approximately 40% found diet and exercise, and 3% found surgery or prescription medication, to be effective WM interventions. HCPs demonstrate high levels of weight bias. Although 67% are comfortable discussing WM, 72% perceive PwO as not interested in WM (yet 82% of PwO are considering/actively engaged in WM). Only 48% of PwO recall receiving a formal diagnosis of obesity. Of HCPs, 77% consider obesity-related complications the most important reason to initiate a discussion but only 20% of PwO are motivated to lose weight by a specific event/diagnosis.

PwO report high unmet healthcare services needs. HCPs must be proactive in changing health beliefs about obesity to avoid implicit weight bias, ensure PwO are treated with respect, receive formal diagnoses and evidence-based care.

P27A

Bioimpedancemetry as an Early Diagnostic Method of Obesity in Children and Adolescents

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Introduction: The prevalence of obesity continues to grow among all age groups. Nowadays, the link between childhood obesity and overweight, metabolic disorders in the future is obvious. Body mass index (BMI) is the most widely used in clinical practice, but the individual level of BMI doesn't always adequately reflect the degree of fat deposition. Also, the use in children's practice is hampered by gender and age characteristics.

Below is one of the clinical cases of complex early diagnosis of obesity and metabolism disorders with a normal BMI in a teenager 15 years old.

ABSTRACT DETAILS

Methods: anthropometric measurement and BMI, bioimpedance measurement, continious glucose monitoring system (CGMS) and nutrition diary analysis using specialized software were performed. In the measurement of anthropometric data, the weights, as well as BMI were within the normal range. When conducting bioimpedancemetry, the following was revealed: an increased percentage of subcutaneous and visceral fat and a low-normal amount of muscle tissue. According to the results of CGMS, postprandial glucose jumps to 10.8 mmol\l.

The patient was offered an individual diet based on the test data, and classes were offered to maintain an average level of physical activity.

When conducting a re-examination after 6 months while maintaining almost the same value of BMI, the compositional components of the body has changed significantly (muscle growth and the decrease in fat), no malfunctions of metabolism have been identified in CGMS.

Conclusion: BMI can't indicate the absence of disorders of carbohydrate metabolism and obesity in their early stages.

P27B

Effects of the Order of Exercise on Body Composition, Anthropometry, and Physical Fitness in Obese Adolescents

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Introduction: The physical coaches insist on discussing which physical training method may be the most effective for reducing body fat percentage (BF) and anthropometric measures, as well as improving aerobic fitness of adolescents. Therefore, there is no consensus on the above highlighted points.

Objective: To investigate the effects of the order of exercise on body composition, anthropometry, and physical fitness in obese adolescents.

Methods: 44 adolescents [28-females and 16-males; age: 13.3 ± 2.5 years old; body mass index (BMI): 33.4 ± 6.5 kg/m^2] were randomly allocated into two groups: the training group performed with body weight (BW) and subsequently the aerobic training (AT), while another group started with AT, then performed with the BW, 3-times/week, over 12-weeks. The training session with BW was performed from the main muscle groups, with 40 min of duration, whereas the AT presented 25 min of duration. The only difference was the order of execution. These were evaluated before and after: body weight, stature, BMI, waist circumference, neck circumference, BF, fat mass, skeletal muscle mass and aerobic fitness. **Results:** Significant reductions were observed in the BF, fat mass and waist circumference for both groups (p<0.05). In addition, a significant increase was observed for skeletal muscle mass and aerobic fitness for both groups (p<0.05). For the other variables, no differences were observed (p>0.05).

Conclusion: In view of this, it is concluded that the exercise order is not determinant to promote changes in body composition, anthropometry and aerobic fitness of assessed people.

P28A

Effects of Training with Body Weight on Body Composition and Cardiometabolic Risk of Obese Adolescents

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Introduction: the modern society has brought with it one of the greatest public health problems of recent decades. In this sense, the obesity has affected more and more children and adolescents. In view of this, cost effective strategies have been tested in order to promote health for the population.

Objective: to investigate the effects of training with body weight (BW) on body composition and cardiometabolic risk of obese adolescents.

Methods: 80-adolescents were randomly allocated into two groups: experimental (EG) and control (CG): [51-females and 29-males; aged: 14.1 ± 2.1 years and body mass index (BMI): 32.4 ± 6.5 kg/m^2] and were evaluated before and after 12-weeks of multidisciplinary interventions. The EG trained 3-times/week using BW and accessories, for the main muscle groups and received theoretical classes practices of nutritionists (2-times/week) and psychologists (1-time/week). The CG did not perform interventions. The evaluation of the body fat percentage (BF), fat mass (FM), skeletal muscle mass (SMM), waist circumference (WC), body mass, stature and BMI was consummated. Fasting glycemia, insulin, HOMA-IR, total cholesterol, HDL-c, and LDL-c were measured.

Results: reductions in BF, FM, WC, insulin, HOMA-IR, total cholesterol and LDL-c were observed only in EG (p<0.05). Furthermore, increases were observed in skeletal muscle mass and HDL-c, only in the EG (p<0.05). For the other variables, no differences were observed (p>0.05).

Conclusion: based on the results, it is possible to confirm that the BW training combined with classes of nutritionists and psychologists can be a cost effective tool to combat obesity in adolescents.

P28B

Telephone-Based Cognitive Behavioural Therapy for Post-operative Bariatric Surgery Patients: a Randomized Controlled Trial

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Background: Bariatric surgery is an effective treatment for severe obesity; however, approximately 50% of patients experience weight regain within the first 1.5 to 2 years. Accumulating evidence suggests that psychosocial interventions, specifically cognitive behavioural therapy, improve binge eating, depression, anxiety and quality of life in bariatric surgery patients. More recently, the introduction of telephone-based cognitive behavioural therapy (Tele-CBT) has obviated the need for travel, thus improving patients' access to treatment. Our previous pilot studies have demonstrated high levels of treatment satisfaction and improvements in eating pathology and psychological distress following Tele-CBT. The current randomized controlled trial seeks to examine whether Tele-CBT delivered at 1-year post-surgery is efficacious in optimizing weight loss and improving physical and psychosocial functioning up to 3-years post-surgery.

Methods: 350 patients will be recruited from the Toronto Western Hospital Bariatric Surgery Program to undergo seven 1-hour Tele-CBT sessions at 1-year post-surgery. Patients complete questionnaire measures pre-intervention and at 1.25-, 1.5-, 2- and 3-years post-surgery.

Results: Fifty patients have been recruited to date. Of these, 19 patients have been randomized to receive Tele-CBT and 8 patients have completed Tele-CBT. The current study retention rate is 87.7%. Full details of the protocol will be described and updated results will be provided at the time of presentation.

Conclusion: This study will provide data regarding the efficacy of Tele-CBT delivered 1 year post-surgery in improving physical and psychosocial functioning up to 3 years post-surgery. The data collected to date suggest that this telephone modality increases treatment accessibility and the retention rate.

ABSTRACT DETAILS

P29A

The Impact of Bariatric Surgery on Health Care Costs: Six-year Results from the [Province] Bariatric Surgery Cohort Study

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Objective: Bariatric surgery results in significant and sustained weight loss, improvements in obesity-related comorbid conditions and increased quality of life. There are limited data on health care costs of patients who undergo bariatric surgery in Canada. The study objective is to examine the impact of bariatric surgery, specifically laparoscopic sleeve gastrectomy (LSG) on the health care costs of patients over a multi-year period.

Methods: This is a longitudinal analysis (2008-2017) of health care costs associated with hospitalization admissions, surgical day care and physician visits for 201 patients enrolled in the [province] Bariatric Surgery Cohort Study. Using data linkage, study participants were linked via a health insurance number to administrative health care data. Differences in health care costs were examined three years pre and post-surgery.

Results: The sample(n=201) was female(81.6%) with an average age of 43.8 years and BMI of 48.3kg/m^2, respectively. Percent excess weight loss(% EWL) was 52.6% at 24 months. Close to half had dyslipidemia(47.9%), hypertension(47.9%) and diabetes(41.8%). Total health care costs increased by 33%, three years post-surgery($p<0.001$) driven by increases in SDC($p<0.05$). GP visits remained similar, but primary reasons for visit differed with reduced visits for hypertension($p=0.003$) and diabetes($p=0.000$) and increased visits for depressive disorder($p= 0.000$).

Conclusions: This data does not demonstrate that bariatric surgery reduces health care costs in the short term. To understand the real value of bariatric surgery as a treatment for individuals living with severe obesity, changes in health status, quality of life, and reductions in premature mortality must be considered in longer term studies.

P29B

The Use of Pharmacotherapy for Weight Recidivism Post-bariatric Surgery

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Introduction: Obesity is a significant problem worldwide and even after treatment with bariatric surgery, weight recidivism occurs in a subset of patients. Revisional bariatric surgery presents additional risks, requires careful patient selelction and is not readily available. The use of pharmacotherapy post-bariatric surgery to address weight recidivism is a new area of research and a comprehensive review of the literature was undertaken.

Method: A review of the existing literature was undertaken using PubMed, CINAHL, Cochrane databases and Google. Keywords included bariatric surgery, pharmacotherapy and weight regain.

Results: The articles retrieved on the topic are primarily retrospective observational studies but suggest that pharmacotherapy might augment post-bariatric surgery weight loss.

Discussion: Experimental design studies are underway to evaluate liraglutide versus placebo for the treatment of weight recidivism post-bariatric surgery. This is imperative, given that the research to date is of limited value due to its observational nature.

Conclusion: Pharmacotherapy use post-bariatric surgery may be an important treatment for weight recidivism or to halt weight regain.

Future Directions: A review of anti-obesity pharmacotherapy prescribing patterns in a cohort of post-bariatric surgery patients in NL will be undertaken.

P30A

Comparison of Weight Loss and Comorbidity Control in Subjects with Obesity with and Without a Psychiatric Diagnosis After a Six-month Obesity Program

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Objective: The aim of this study was to evaluate weight loss and comorbidities among adults with (WPS) and without psychopathology (WoPs) enrolled in a multidisciplinary obesity treatment program.

Material and Methods: We analysed 168 obese patients undergoing a six month outpatient multidisciplinary obesity treatment program at the National Institute of Medical Sciences and Nutrition in Mexico. Patients were evaluate monthly by a physician and nutritionist, bimonthly by a psychologist and had a psychiatric evaluation at the beginning of the program, were treated and evaluated accordingly in the last visit. Psychopathology was assessed with the International Neuropsychiatric interview (MINI) and DSM V criteria. The aim was to achieve a minimum of ≥5 kg weight loss. Comorbidities included in the study were diabetes mellitus, hypertension and dyslipidemia

Results: Of the 168 patients, 68% were women. The mean of visits attended was 6 and mean age was 43.9 years. Ninety seven patients (58%) had a psychiatric diagnosis, 122 (46%) hypertension (HAS), 35 (21%) diabetes (DM) and 70 (42%) had dyslipidemia (DLP).

Patients WoPS basal weight was higher (mean 110.9 kg) than patients WPS (mean 122.2kg) p=0.01. Thirty six patients WoPS (45%) and 44 WPS (51%) achieved 5% weight loss without significance between groups (p=0.77). Comorbidities outcomes were not different at the end of the program; DLP (p=0.64), HAS (p=0-18) y DM (p=0.44)

Conclusions: Patients WPS had higher BMI at the beginning of the program. There were no significant difference in weight and comorbidities in the short term between patients WoP and WP.

P30B

Naltrexone/Bupropion is Well Tolerated and Had No Effect on Serious Adverse Events in Participants Receiving Antidepressant Medication, Including SSRIs

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Extended-release naltrexone/bupropion (NB) is approved for chronic weight management. This study assessed the effect of NB on cardiovascular (CV) events in overweight/obese participants at elevated CV risk. Participants were required to lose ≥2% body weight at 16 weeks, without a sustained increase in blood pressure, to continue study drug.

This study was terminated early after the second interim analysis, which corresponded to 50% of the primary endpoint data being collected. Data on CV endpoints were previously published. The current analyses focused on adverse events (AEs) in participants on antidepressants at baseline, as they were excluded from Phase 3 trials.

The intent-to-treat (ITT) population (PBO N=4450, NB N=4455) was 54.5% female, 83.5% white, mean age of 61 yrs, mean BMI 37.3 kg/m^2, 22.8% with a history of depression, 23.1% on antidepressant medication, including 15.4% on SSRI. The incidence Serious AEs (SAEs) in participants

ABSTRACT DETAILS

receiving antidepressants was similar between NB (10.7%) and PBO (9.9%) and was also similar to that observed in the overall population (9.5% NB, 8.1% PBO). SAEs in those on SSRIs were similar between NB (10.1%) and PBO (9.4%). For those on antidepressants or just SSRIs, AEs leading to drug discontinuation were similar to those observed in the overall population and were primarily GI disorders.

Obesity increases the risk of developing depression. Data from these analyses demonstrate that for participants taking NB and antidepressants, including SSRIs, there is a similar adverse event profile as the overall population and revealed no evidence of an additional health risk with combined use.

P31A

Naltrexone/Bupropion Extended-Release 32 Mg/360 Mg Significantly Improves Liver Enzymes in Obese/Overweight Individuals with Elevated Liver Enzymes

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Alanine aminotransferase (ALT) can increase in non-alcoholic fatty liver disease (NAFLD) and can improve with weightloss.

Posthoc-analyses examined ALT changes in non-diabetic patients with obesity treated with extended-release naltrexone/bupropion (NB), approved in Canada for obesity management.

Subjects from three randomized controlled trials assigned to NB or placebo (PBO), completing 56 weeks, were included. NB subjects with ≥5% weightloss at week 16 were included, consistent with label. Analyses by baseline (BL) ALT quartile included change from BL in ALT, % of subjects achieving 25% or 50% reduction in ALT, and % subjects achieving Prati criteria (≤19IU/L for women; ≤30IU/L for men) at Week 56.

Study population included 781 NB subjects (mean age 46 years, BMI 36kg/m^2, 85% female, median ALT 22IU/L) and 663 PBO subjects (mean age 46 years, BMI 36kg/m^2, 84% female, median ALT 22IU/L). NB study completers experienced significantly greater weightloss vs. PBO (-12.4% vs. -2.7%, p<0.001). In subjects with ALT in 1st (median ALT, 15IU/L), 2nd (median ALT, 20IU/L), and 3rd quartiles (median ALT, 26IU/L), NB led to significantly greater weightloss compared to PBO without significant ALT reductions at week 56. In the 4th quartile of BL ALT (median 40IU/L), NB treatment resulted in significantly larger ALT reduction, higher % of subjects showing 25% and 50% ALT reduction from BL, and higher % achieving the Prati criteria compared to PBO (p<0.001).

In individuals with overweight/obesity with elevated ALT, at high risk for NAFLD, NB-associated weightloss significantly improved serum ALT levels and normalized ALT in sizable proportion.

P31B

Extended-Release Naltrexone /Bupropion- Induced Weight Loss Is Independent of Nausea

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Extended-release naltrexone/bupropion (NB) is approved for chronic weight management. In phase 3, double-blind, placebo (PBO)-controlled 56-week studies in subjects with overweight/obesity (NB N=591, PBO N=202). NB significantly reduced body weight by 9.3% (N=482) compared to placebo weightloss of 5.1% (N=193;p<0.001; modified ITT-LOCF). Consistent with safety profiles of NB's individual components, mild to moderate nausea was the most common adverse event (31.3% NB vs. 10.0% PBO). The incidence of severe nausea (2.7% NB vs. 0.5% PBO) and withdrawals primarily due to nausea were low (4.6% NB vs.0.0% PBO). To the effects of NB-induced nausea on weight loss, posthoc analyses were conducted on the NB-treated population. Nausea, generally transient, with incidence at highest during the first four weeks of the study, coincided with the drug titration period (Week 1,12.3%; Week 2, 3.6%; Week 3, 5.0%; Week 4, 4.3%). The majority of discontinuations due to nausea occurred during the first four weeks (n=17, 63%). The incidence of nausea and discontinuations due to all AEs decreased markedly after the first four weeks of the study. Discontinuations due to all AEs were similar for both groups from Week 8 through Week 56 (6.8% NB vs. 8.5% PBO). Weightloss at 56 weeks was similar in subjects who did not experience nausea vs. subjects who experienced ≥1 episode of nausea (-9.5±0.5% vs. -9.0±0.7%, P=0.487; modified ITT-LOCF). These results suggest that nausea was not a meaningful contributor to the weightloss observed with NB, being mostly mild to moderate, occurring early in the study, and generally transient.

P32A

Long-term Efficacy of Naltrexone/Bupropion, Administered as Recommended in Clinical Practice

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Extended-release naltrexone/bupropion (NB) is approved in Canada for chronic weight management in adults. This study compared the effects of NB combined with a commercially-available telephone/web-based lifestyle intervention program (Group 1) with effects of usual care (Group 2; periodic diet and exercise advice), in subjects with overweight/obesity over 26 weeks, followed by a 1-year extension during which all subjects received NB and lifestyle intervention.

To continue NB treatment, subjects were required to exhibit ≥5% weightloss after 16 weeks (consistent with label). The primary endpoint was weight change at Week 26 (reported previously). This analysis focuses on Week 78 data.

The overall randomized population (Group 1 N=153, Group 2 N=89) was 84% female, 78% white, with mean age of 47 years and BMI of 36 kg/m^2. Similarly, the Week 78 per protocol (PP) population (n=83) was 81% female, 87% white, 48 years, with BMI of 36 kg/m^2. Major reasons for NB discontinuation were <5% weight loss after 16 weeks of treatment (24%) and adverse events (21%). At 78 weeks, least squares mean change in weight (SE) was similar between PP Group 1 and Group 2 subjects (-9.4 [1.1]% and -10.7 [1.5]%). Pooling Groups 1 and 2, 72%, 46%, and 25% of subjects achieved ≥5%, 10%, and 15% weight loss respectively at Week 78. The safety profile was similar to Phase 3 trials.

In this study NB, when combined with lifestyle modification and used as recommended in clinical practice, resulted in approximately 10% mean weight loss sustained for up to 78 weeks.

P32B

An Integrated Analysis of the Effects of Extended-release Naltrexone/Bupropion on Food Cravings and Mood Subscales of the Control of Eating Questionnaire

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ABSTRACT DETAILS

Extended-release naltrexone/bupropion (NB), postulated to act in the hypothalamus and CNS reward pathways, promotes weightloss. In NB Phase 3 trials, the Control of Eating Questionnaire (CoEQ) was used to assess food cravings and mood over the previous 7 days, and the relationship with weightloss, was evaluated.

Integrated post-hoc analyses of CoEQ data from four 56-week NB trials in subjects with overweight/obesity was performed. CoEQ was administered at baseline and Weeks 8, 16, 28, and 56. Analysis was performed on 56 week-completers with NB (n=1238) or Placebo (PBO; n=720), and had weight and CoEQ measurements at baseline and Week 56. A principal components analysis of the CoEQ revealed 4 components explaining 67.3% of total variance: Craving Control (CR); Craving for Sweet (SW); Craving for Savory (SV); and Positive Mood (MD). Treatment differences were evaluated using ANOVAs and associations between CoEQ components and weightloss were examined using Pearson's correlations.

NB significantly improved CR ($p<0.001$), SW ($p<0.02$), SV ($p<0.001$), and MD ($p<0.001$) compared with PBO. Early improvements in CR (Week 8, 16, and 28) and SW (Week 8) with NB vs PBO were weightloss-independent. The largest treatment effect was observed with CR ($p<0.001$). In a subset of subjects (n=67), early CR improvement (Week 8) was associated with greater BMI reductions ($r=-0.40$; $p<0.001$) at Week 56.

NB resulted in improved CR and SW-independent weightloss, suggesting direct effects of NB on cravings. NB was associated with sustained improvement in all CoEQ sub-scales, and improvements in CR were associated with BMI reductions at Week 56.

P33A

An Integrated Analysis of Weight Loss with Combination Extended-Release Naltrexone/Bupropion Therapy by BMI Classification

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Prevalence of adult obesity has doubled since 1980 across obesity classes and an upward trend remained in the past decade. Extended-release naltrexone / bupropion (NB) significantly reduced body weight vs placebo (PBO) in four Phase 3 trials of overweight/obese patients (BMI 27-45 kg/m^2). An integrated post-hoc analysis examined weight loss by baseline (BL) BMI (kg/m^2): Class-I (30.0-34.9), Class-II (35.0-39.9), Class-III (≥40). Treatment differences (LS mean±SE) in the modified ITT-LOCF population (≥1 post-BL weight on study drug) were evaluated by ANCOVA with treatment, study, and BL value as covariates. Patients in both arms were similar at BL (NB n=2043; PBO n=1319): 81% female; age 46 y; BMI 36 kg/m^2; Class-I/II/III 37%/36%/25%. Completion rate was 66% (NB) and 59% (PBO). At Wk 56, more weight loss was seen with NB (7.0±0.2%) vs PBO (2.3±0.2%; $p<0.001$) and more patients lost ≥5% BL weight with NB (odds ratio vs PBO: 4.1; $p<0.001$). NB patients experienced favorable shifts in BMI class (NB vs PBO: improved=45% vs 20%, no change=53% vs 74%, worsened=2% vs 6%; $p<0.001$). Percent weight loss and categorical changes were similar in all 3 classes (all $p<0.001$). The safety/tolerability of NB was consistent with its components and across BMI classes; the most common AEs were nausea (32%), constipation (19%), headache (18%), and vomiting (11%). Clinically significant weight loss with NB was achieved across a wide BMI range.

P33B

Early Achievement of Significant Weight Loss with Extended-Release Naltrexone/Bupropion is Associated with Additional Weight Loss at 1 Year

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Extended-release naltrexone/bupropion (NB) significantly reduced body weight vs placebo (PBO) in 4 Phase 3 trials of overweight/obese subjects (BMI ≥27 and ≤45 kg/m^2) at Wk 56: NB -7.0% (SE=0.2) vs PBO -2.3% (SE=0.2; $p<0.001$). As early response predicts long-term weight loss, an integrated analysis (n=2043 NB, n=1319 PBO) was performed to evaluate the proportion of early responders (≥5% weight loss at Wk 16) and their long-term weight loss. Treatment differences (LS mean) in the modified ITT-LOCF population (≥1 post-baseline weight on study drug) were evaluated by ANCOVA with treatment, study, and baseline (BL) values as covariates. BL characteristics were similar between treatment groups: 81% female, age 46 y, BMI 36 kg/m^2. ≥5% weight loss by Wk 16 was achieved in 51% of NB subjects and 19% of PBO subjects. Of the early NB responders, 87% completed 56 weeks of treatment. In the early NB responders (-9.2% weight change at Wk 16), body weight at Wk 56 was further reduced (-11.3% from BL) and weight loss of ≥10% or ≥15% was achieved by 55% and 30% of subjects, respectively. The most frequent AEs with NB in both the overall Phase 3 population and the early responders were nausea, constipation, and headache. The majority of subjects treated with NB achieved ≥5% weight loss by Wk 16; these subjects exhibited additional weight loss at 1 year, and 87% continued treatment to study end, supporting the use of the Wk 16 threshold to predict longer term outcomes.

P34A

Effect on Body Weight of Naltrexone/Bupropion in Overweight and Obese Participants with Cardiovascular Risk Factors in a Large Randomized Double-blind Study

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Naltrexone/bupropion (NB) is approved for chronic weight management. This study assessed the effect of NB on cardiovascular (CV) events in overweight/obese participants at elevated CV risk. Randomized participants (NB or placebo [PBO]) were required to lose ≥2% body weight at 16 wks, without a sustained increase in blood pressure, to continue study drug.

This study was terminated early after second interim analysis, which corresponded to 50% of the primary endpoint data being collected. Data on CV endpoints were previously published. The current analyses focus on change in body weight.

The intent-to-treat (ITT) population (PBO N=4450, NB N=4455) was 54.5% female, 83.5% white, mean age 61 yrs, mean BMI 37.3 kg/m^2; 85.2% had T2DM, 32.1% had CV disease. At 52 wks, the ITT-LOCF analysis showed greater least squares mean percent change in body weight (LSM%ΔBW) with NB (-3.1%; 95% CI -4.8, -1.4) vs PBO (-0.3%; 95% CI -1.9, 1.4). Both groups lost more weight in an on-treatment analysis (NB [-7.3%] and PBO [-3.9%]). The odds ratios of 5% and 10% weight loss were 3.3 and 4.1, respectively, in NB over PBO. At 104 wks, the on-treatment LSM%ΔBW was -6.3% with NB (n=1137) vs -3.5% with PBO (n=741). Major reasons for NB withdrawal were adverse events (AE, 29%) and

ABSTRACT DETAILS

patient decision (21%), with GI disorders being the most common AEs leading to NB withdrawal.

Weight loss with NB, in an older population predominantly with diabetes and elevated CV risk, was somewhat lower than that observed PBO, similar to Phase 3 studies observations.

P34B

Extended-release Naltrexone/Bupropion Improves Glucose Control in Individuals with Prediabetes

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Naltrexone/bupropion (NB) reduces body weight in subjects with and without type 2 diabetes mellitus (T2DM), improving glycemic control. Given well-established relationship between weightloss and prevention of T2DM, we examined the effects of NB in overweight/obese subjects without T2DM but with impaired fasting glucose (FG) in three Phase 3 trials.

Subjects with impaired FG (≥5.56 mmol/L at screening and baseline) completing 56 weeks of treatment were assessed (NB n=176, placebo [PBO] n=108; mean BMI 37 kg/m2, mean weight 103 kg). Weight and FG were analyzed as LS means, insulin and HOMA-IR as geometric LS means; differences were evaluated by ANCOVA with treatment, study, and baseline values as covariates.

Weight change was significantly greater with NB (-9%) vs PBO (-5%; p<0.001 vs. NB) at 56 weeks. At baseline, FG was 6.17 mmol/L for NB and 6.08 mmol/L for PBO. At 56 weeks, FG was reduced by 0.59 mmol/L with NB vs 0.38 mmol/L with PBO (p=0.013 vs NB). Fasting insulin was similar at baseline (NB: 15.5 µIU/mL; PBO: 15.3 µIU/mL) and was significantly reduced with NB (30%) vs PBO (13%) at week 56 (p=0.002 vs NB). HOMA-IR was 4.2 (NB) and 4.1 (PBO) at baseline; greater improvement was observed with NB (-37%) vs PBO (-19%; p=0.001 vs NB). Weightloss was correlated with reductions in FG (r=0.38), insulin (r=0.49), and HOMA-IR (r=0.50; all p<0.001, no difference NB vs.PBO).

Greater weightloss with NB was associated with significantly greater improvement in FG, insulin, and HOMA-IR vs PBO. Such weightloss may delay the progression to T2DM.

P35A

Real-world Clinical Effectiveness of Liraglutide 3.0 Mg for Weight Management in Canada

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Objectives: Real-world clinical effectiveness of liraglutide 3.0 mg, adjunct to diet+exercise, was investigated 4 and 6 months post-initiation. Body weight (BW) and cardiometabolic marker changes were examined from baseline.

Methods: Liraglutide 3.0 mg initiators from 2015–2016 were identified from an EMR database of 6 Canadian weight management clinics, 4- and 6-month post-initiation values were compared to respective baseline values (paired t-test).

Results: The full cohort comprised 311 patients. 210 remained persistent for ≥4 months and 167 for ≥6 months. Mean age was 49.7 years with patients predominantly white (78%), female (83%), with mean BMI 40.7 kg/m^2 and BW 114.8 kg. At baseline, 74.9% had normoglycemia, 19.9% had prediabetes, and 5.1% had diabetes, with mean HbA_{1c} 5.8% and blood pressure 127/77 mmHg. There was a statistically significant change in BW 6 months after treatment initiation in patients with ≥6-month persistence (-8.1 kg, p<0.001), and ≥4-month persistence (-6.9 kg, p<0.001). Overall, weight loss was statistically significant in all subjects, regardless of persistence (-7.5 kg, p<0.001). Percentage BW change from baseline for ≥6-month group was -7.1%, with 63.4% and 35.2% patients losing ≥5% and >10% BW, respectively. For the ≥6-month treatment group, there was a statistically significant change in HbA_{1c} (-0.35%, p<0.001) and SBP (-3.0 mmHg, p<0.01), but not DBP (0.1 mmHg, p=0.90).

Conclusions: In a real-world setting liraglutide 3.0 mg, combined with diet+exercise, was associated with clinically meaningful weight loss and improvements in cardiometabolic markers.

P35B

Real-world Persistence and Weight Loss with Liraglutide 3.0 Mg by Obesity Class: a Post-hoc Analysis of the Real-World Effectiveness Study in Canada

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Background: The clinical effectiveness of liraglutide 3.0 mg was evaluated in a study conducted at Wharton Medical Clinics in Canada. The objective of this *post-hoc* analysis was to evaluate the treatment effect with liraglutide 3.0 mg in individuals by different classes of obesity.

Methods: Data from a cohort of liraglutide 3.0 mg initiators between September 2015–2016 was split by BMI (kg/m^2): Class I (30–34.9), Class II (35–39.9) and Class III (≥40).

Results: Baseline characteristics were similar across BMI classes except systolic blood pressure, which increased with increasing BMI class. Time to maintenance dose was 64.2±56.4 days (class I cohort) 76.4±56.3 days (class II cohort) and 71.4±54.5 days (class III cohort). Maximum dose of liraglutide 3.0 mg for all classes was 2.7–2.8 mg. Persistence was 6.7±4.0 months (class I cohort), 6.0±3.5 months (class II cohort) and 6.3±4.5 months (class III cohort). At 6 months, weight loss of 6.22 kg (95%CI: -7.78,-4.67; %WL, 7.03), 6.74 kg (95%CI: -8.52,-4.95; %WL, 6.60) and 8.04 kg (95%CI: -9.32,-6.76; %WL, 6.14) was observed in class I, II and III cohorts, respectively (all significant vs. baseline; p<0.001). The proportion of individuals achieving weight loss ≥5% was 60.4%, 62.0% and 55.3 in class I, II, and II cohorts, respectively.

Conclusions: The results of this analysis suggest that in a real-world setting with liraglutide 3.0 mg, individuals may take longer to reach the maintenance dose than in a clinical setting, persist with treatment for a similar duration and can achieve clinically significant weight loss, regardless of obesity class.

P36A

Key Factors Associated with Maintained Weight Loss in the ACTION Study Canada

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To identify factors associated with sustained weight loss (WL) in the ACTION Study Canada.

Adult people with obesity (PwO; BMI ≥30 kg/m^2 by self-reported height and weight. N=2000) and healthcare providers (HCPs. N=395) completed online surveys between August 3 and October 11, 2017. WL mainten-

ance was defined as a current weight of at least 10% less than maximum weight in the past 3 years, and maintained for at least 1 year.

Of the 21% of PwO who reported ≥10% WL in the past 3 years, only 46% (10% of total sample) maintained WL. PwO placed a higher priority on information for maintaining WL than HCPs (30% vs 12%, respectively). PwO who maintained WL were significantly more likely than those who had not maintained WL to report: discussing weight with a HCP, discussing weight change over time, having longer duration conversations with HCPs, approaching their HCP more promptly after noticing excess weight (5 vs 12 years, respectively), having a formal diagnosis of obesity, tracking meals and exercise, taking prescription and/or over-the-counter medication, and practicing stress management. PwO who maintained WL were significantly more likely to report feeling supported and motivated to lose weight after discussions with their HCP, and were significantly more likely to comply with their HCP's recommendations than those who had not achieved or sustained WL.

Because obesity is a complex, chronic disease, the results of the ACTION Study should be considered in successful long-term management of obesity and future treatment guidelines.

P36B

Living with Osteoarthritis and Obesity: Hearing Stories of Patients' Healthcare Experiences

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Introduction: Digital storytelling is an innovative approach in healthcare research that is used in the areas of advocacy, education, and practice. The voices of patients living with obesity and osteoarthritis (OA) are missing from the scientific research community. Without hearing their perspectives, it is unclear how standard care for OA is being received by patients living with obesity. In this project, patients with obesity seeking treatment for OA will share their healthcare experiences situated in everyday lives. Digital stories, as 3-5 minute videos, will highlight meaningful experiences to be shared with other patients, healthcare professionals, and researchers.

Aims: 1) To determine the gaps and facilitators of access to care, effectiveness of delivered services and overall experience for patients in treatment for OA who also have obesity. 2)To generate practical options for OA programs that meet patients' needs and expectations.

Methods: Narrative research methods, drawing on the experiential knowledge of participants, will add to the current body of knowledge contributing to best practice in OA treatment, specifically related to patients with obesity. Twenty-four participants will meet with the primary researcher. Six meetings with each of the participants will be audio recorded and transcribed verbatim for analysis using NVivo 12 software.

Conclusion: This research will substantiate current research with experiential knowledge from patients. From their stories we can identify the gaps and facilitators in current healthcare practice – to guide program planning and policy such as reducing weight bias and discrimination.

P37A

The Effect of a Low Carbohydrate High Fat diet and Intermittent Fasting on Weight Loss

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Objective: To investigate the effect of a Low Carbohydrate High Fat (LCHF) diet and Intermittent Fasting (IF) on weight loss.

Methods: The Wharton Medical Clinic (WMC) is a weight and diabetes management clinic with multiple locations across Southern Ontario. A new pilot LCHF diet program launched at one WMC branch which targeted patients who were not successfully losing weight with the standard program, as well as those with Type 2 diabetes and metabolic syndrome. In addition to LCHF, IF was added at the third or fourth visit (n=145).

Results: Approximately half (n=73, 50.3%) of the patients attended the core WMC program prior to attending the LCHF specialty clinic. Patients attended the LCHF specialty clinic for an average of 5.1 ± 5.0 months and showed a significant reduction in weight (-4.7 ± 13.5 kg**,** P<0.05). Over their time attending the LCHF speciality clinic, patients who initiated IF lost significantly more weight (-9.3 ± 18.4 kg), in comparison to patients who did not initiate IF (-2.7 ± 10.1 kg, P< 0.05). People who initiated IF had approximately 3-fold greater chance of achieving a ≥10% weight loss when adjusting for initial BMI, age, sex, and weight loss attained through the core WMC program prior to joining LCHF clinic.

Conclusion: Patients lost a significant amount of weight while attending the LCHF clinic. In addition, patients who initiated IF lost significantly more weight in comparison to the patients who did not.

P37B

A Pilot Study Evaluating the Effectiveness of the "5As of Healthy Pregnancy Weight Gain" Tool

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Introduction: Gestational weight gain (GWG) outside the Institute of Medicine guidelines poses risk to mother and baby. However, not all prenatal healthcare providers (HCPs) discuss GWG with their patients. The Canadian Obesity Network's *5As of Healthy Pregnancy Weight Gain* tool aims to help HCPs counsel patients on GWG.

Objectives: To evaluate the impact of the 5As tool on patient perceptions of GWG discussions and identify ways to improve the tool.

Methods: A quasi-experimental study design was conducted where prenatal HCPs were trained to use the 5As tool. Patients were tested at baseline and post-intervention using an electronic questionnaire measuring patient-perceived 5As counselling. Pregnant women were eligible if they attended their first appointment with participating HCPs, spoke English and were over 18 years old.

Results: A total of 100 pregnant patients (50 baseline and 50 post-intervention) and 15 HCPs (11 midwives and four obstetricians) participated. Participants receiving care from 5As-trained HCPs reported scores twice as high (22.66 compared to 11.19, p=0.047) in Ask and were roughly three times more likely to be told an exact amount of target weight to gain (34% compared to 12%, p=0.030). HCPs reported liking the tool but suggested reducing the content, improving HCP education and improving the patient handouts.

Conclusion: The 5As tool is effective at initiating GWG counselling, yet work is needed to improve uptake and dissemination for all components of the 5As. Future steps for improvement include incorporating HCP feedback and developing novel GWG knowledge translation tools including patient handouts.

P38A

Obesity Prevention in Infancy: What Do Parents Think?

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Background: Infancy appears to be a critical period for establishing an individual's weight set-point. It remains unclear which interventions during infancy may be most effective in preventing later obesity and which are most acceptable to parents. Traditionally, obesity prevention has focused on healthy food and activity. "Responsive" parent feeding style has been identified as another factor. By exploring traditional (no screen time, no

sugary beverages) and novel (responsive feeding) messages and learning more about how and when parents prefer to receive these messages the study aims to answer the question: "In a population of parents of children age two and under, what are the attitudes towards and preferences for different obesity prevention messages?"

Methods: Qualitative research design using semi-structured interviews followed by a focus group. 33 parents of children under age two were purposively recruited from two communities in British Columbia. The data was analyzed using theoretical thematic analysis.

Results: Parents reported that many of the current recommendations (no screen time, no sugary beverages) are unrealistic, unclear and inconsistent, making them difficult to follow and causing parents to feel guilty in contrast to the responsive feeding roles message. Parents noted the importance of starting education early and targeting the broader community.

Interpretation: Obesity prevention information for today's busy parents needs to be realistic, supportive and timely. This study provides valuable insights into parents' perceptions of obesity prevention education to guide future research and practice and has broader implications for health promotion aimed at this important demographic group.

P38B

Higher Physical Activity Level and Sleep Duration for Girls Who Cumulate More Years in the FitSpirit School-based Intervention: Results of the 2017-2018 Pilot Project

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An active lifestyle is necessary for optimal health. However, girls become less active from childhood through adolescence. **Objective:** To explore the relationship between the number of years of participation in the FitSpirit intervention with body mass index (BMI), moderate-to-vigorous physical activity (MVPA), sedentary time (SED), sleep duration and perceived health.

Methods: FitSpirit is a school-based intervention which promotes physical activity among girls aged 12-17 years. Data was collected via an online questionnaire completed May/June 2018. Partial correlations adjusted for age and BMI (when it was not the outcome) and Chi-square were performed.

Results: The sample included 272 girls with a median age of 15 (11.0-19.0) years. Overall, 22.5% were classified with overweight/obesity by z-BMI. Based on perception, 57.0% of girls described their health as very good/excellent, while 28.3% and 11.4% reported it as good and fair/poor, respectively. There was a significant difference between the perceived health categories and BMI status (X^2=22.9, p<0.001): girls classified with a healthy BMI status reported their health as very good/excellent, while those classified with obesity described it as fair/poor. There was a significant positive correlation between the years of participation in the FitSpirit program with MVPA (r=0.15, p<0.01) and sleep duration (r=0.13, p<0.03). Moreover, there was an inverse correlation between SED and sleep duration (r=-0.16, p<0.01).

Conclusion: In the FitSpirit cohort, health perception differed according to BMI status. More years of participation in the program were correlated with higher MVPA and sleep duration. FitSpirit seems to have a positive role on lifestyle variables.

P39A

Multiprofessional Obesity Treatment Program for Adult Patients with Severe Obesity: Initial Complaints and Reports After the Trial

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Introduction: Overweight and obesity are estimated to account for 3-4 million deaths in 2010. In Brazil, 18.9% of the population is obese, the country is the 5th in number of obeses.

Objective: To investigate the initial complaints and reports after the trial in severe obeses adults participants in a Multiprofessional Obesity Treatment Program (MOTP).

Methods:252 adultsaged 18 to 50 years (36,63±8,79)andBMI35,6±6,2 participated in a initial assessment. 50 most obese were selected to participated in a MOTPincluding three weekly meetings with 1 hour of physical exercise and 1 hour of theoretical orientation in each meeting with professionals of physical education, nutrition and psychology during 24 weeks. Interviews were conducted to identify the initial complaints and to compare with the reports at the end of the program.

Results: The most frequent complaints were: pain in the body, difficulties in locomotion, increased blood pressure, sleep problems and the size of the seats in bus, cinema. After de Program interesting reports have been made: EPS-F37 "It was wonderful to participate in the project, we received information that will be for life, the project planted a seed of hope in each of us, we know that it is possible to stay healthy without starving"; SRA-M37 "Today I have won another stage in my life, just want to overcome challenges, we will win".

Conclusion: Complaints show how the obese population suffers daily. The reports confirm the importance of developing MOTP with a focus on behavioral change to impact health and quality of life through an active and healthy lifestyle.

P40A

The Impact of a Bariatric Simulation Suit on Functional Mobility in Adults without Obesity

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Objectives: A bariatric simulation suit (BSS) is marketed as an educational tool to better understand what it is like to live with obesity, including functional mobility. No research has been published to support this. This study explored the impact of a non-weight matched BSS on functional mobility in adults who do not have a body mass index (BMI) classified as overweight or obese.

Methods: This exploratory study included 10 students (mean age 24 y.o.; mean BMI 24.3kg.m^2) who completed the following functional task with and without wearing the BSS; 10 m walk, stair walking, Timed Up and Go and, obstacle crossing. The control group included nine students (mean age 24y.o; mean BMI 33.6kg/m^2). Three-dimensional kinematic data was collected for all participants along with a semi-structured interview asking participants to reflect on the perceived difficulty of each of the tasks performed.

Results: A significant difference in gait stride, gait speed, and head placement during all tasks with and without wearing the BSS. Participants in the intervention group reported finding mobility tasks more difficult while wearing the suit while individuals in the control group reported no difficulties performing the same tasks. Differences between the intervention and control groups based on functional tasks will be reported.

Conclusions: The BSS appears to alter functional mobility and raise awareness about mobility challenges associated with alterations in body size and shape for indivudals without obesity. It is not known, to what extent, it simulates movement of individuals living with obesity.

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