CABPS 2022 Conference

VIRTUAL PSYCHOSOCIAL CARE TO SUPPORT BARIATRIC SURGERY: LESSONS LEARNED FROM COVID-19

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DISCLOSURE: **SANJEEV SOCKALINGAM, MD, MHPE, FACLP**

- None related to this presentation
- Grants: Canadian Institute of Health Research (CIHR)

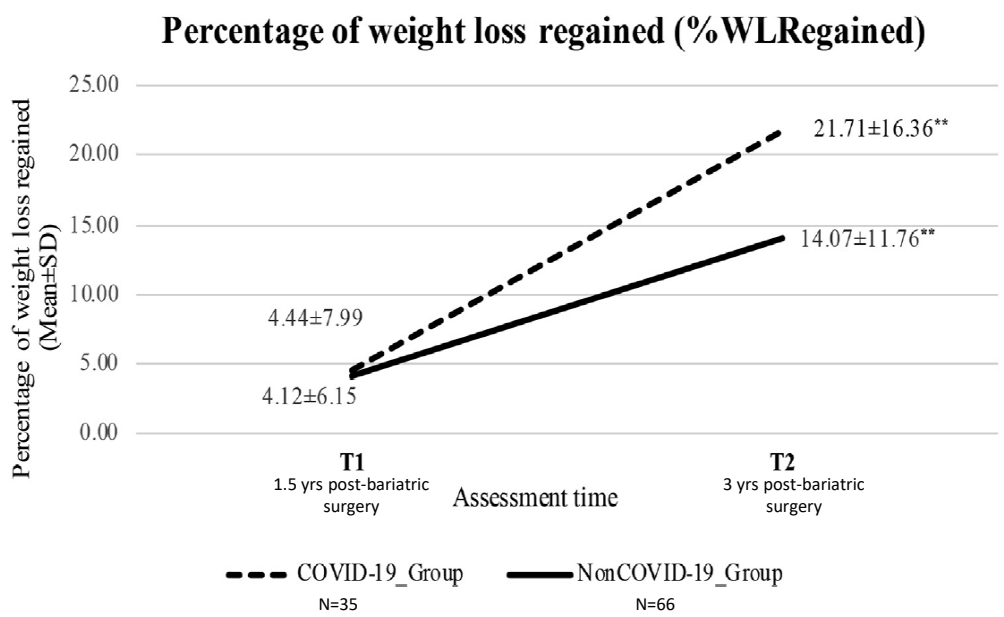
CanMEDS Roles Covered: SOCKALINGAM - CABPS | May 6, 2022”

X	**Medical Expert** (as *Medical Experts*, physicians integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional values in their provision of high-quality and safe patient-centered care. *Medical Expert* is the central physician Role in the CanMEDS Framework and defines the physician’s clinical scope of practice.)
X	**Communicator** (as Communicators, physicians form relationships with patients and their families that facilitate the gathering and sharing of essential information for effective health care.)
	Collaborator (as *Collaborators*, physicians work effectively with other health care professionals to provide safe, high-quality, patient-centred care.)
	Leader (as *Leaders*, physicians engage with others to contribute to a vision of a high-quality health care system and take responsibility for the delivery of excellent patient care through their activities as clinicians, administrators, scholars, or teachers.)
X	**Health Advocate** (as *Health Advocates*, physicians contribute their expertise and influence as they work with communities or patient populations to improve health. They work with those they serve to determine and understand needs, speak on behalf of others when required, and support the mobilization of resources to effect change.)
	Scholar (as *Scholars*, physicians demonstrate a lifelong commitment to excellence in practice through continuous learning and by teaching others, evaluating evidence, and contributing to scholarship.)
X	**Professional** (as *Professionals,* physicians are committed to the health and well-being of individual patients and society through ethical practice, high personal standards of behaviour, accountability to the profession and society, physician-led regulation, and maintenance of personal health.)

OUTLINE

- Impact of COVID-19 on psychosocial care after bariatric surgery
- Lessons learned from the pandemic regarding virtual psychosocial care to support bariatric surgery
- Future implications for virtual psychosocial interventions in bariatric care

OCVID-19 LOCKDOWN EFFECTS ON OBESITY AND MENTAL HEALTH



Less healthy dietary intake associated with:

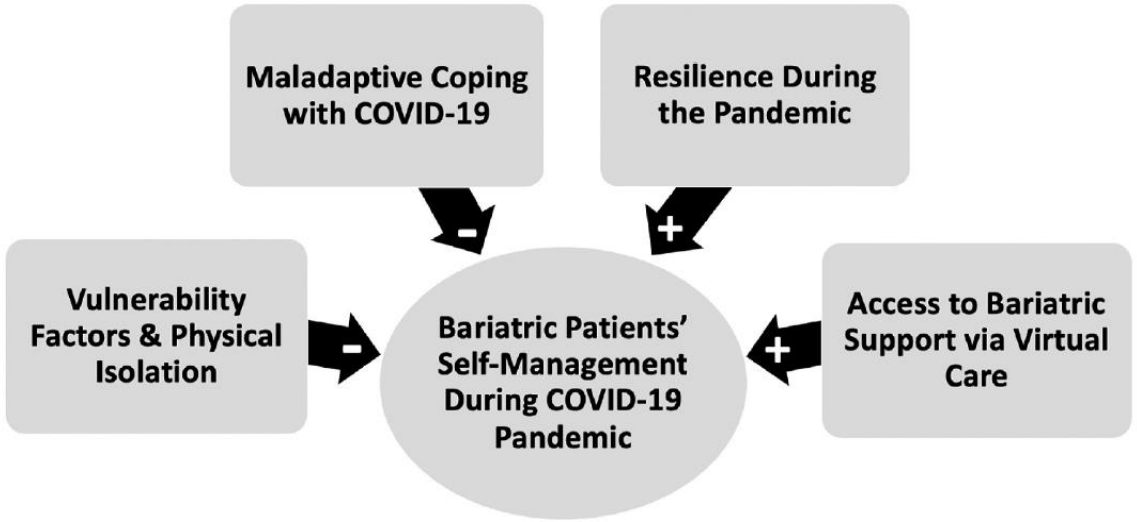
- Higher depressive symptoms
- Higher alcohol use and smoking behaviours

Factors associated with weight gain for individuals living with obesity:

- Comorbid psychiatric diagnosis

Pham KM et al. Front Nutrition 2020; Pellegrini M et al. Nutrients 2020;
Conceicao E et al. SOARD 2021

IMPACT OF COVID-19 ON PATIENT SELF-MANAGEMENT OF OBESITY



Qualitative Study of 23 post-bariatric surgery patients
Range for follow-up: 6 mos – 7 years
82% female

Maladaptive Coping

- Changes in eating in response to emotional distress
- Rising cases triggered "end-of-World" eating

Vulnerability Factors & Physical Isolation

- Disrupted routines & lifestyle
- Food insecurity due to finances
- Lack of social support
- Losing work/life balance

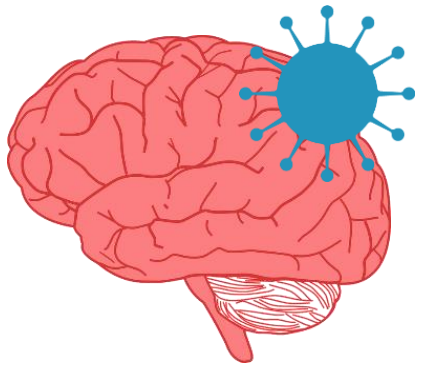
Resilience During Pandemic

- More likely males & individuals married

Bariatric Support via Virtual Care

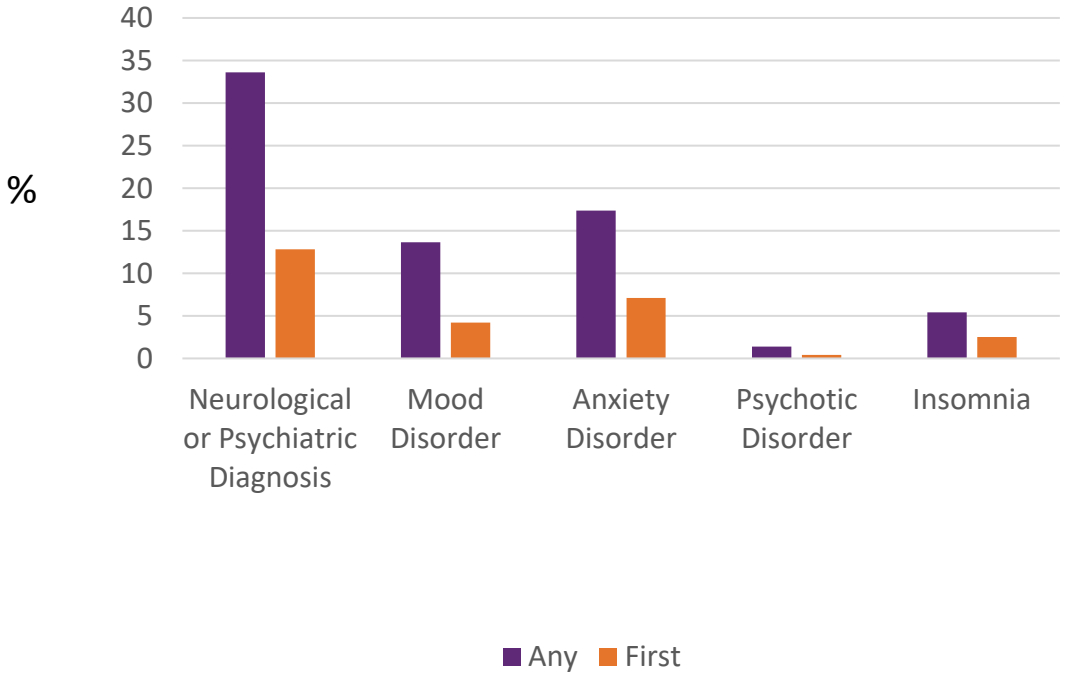
- Continued access to bariatric team

Youssef A, Cassin SE, Wnuk S, Leung S, Jackson T, Sockalingam S. Appetite 2021

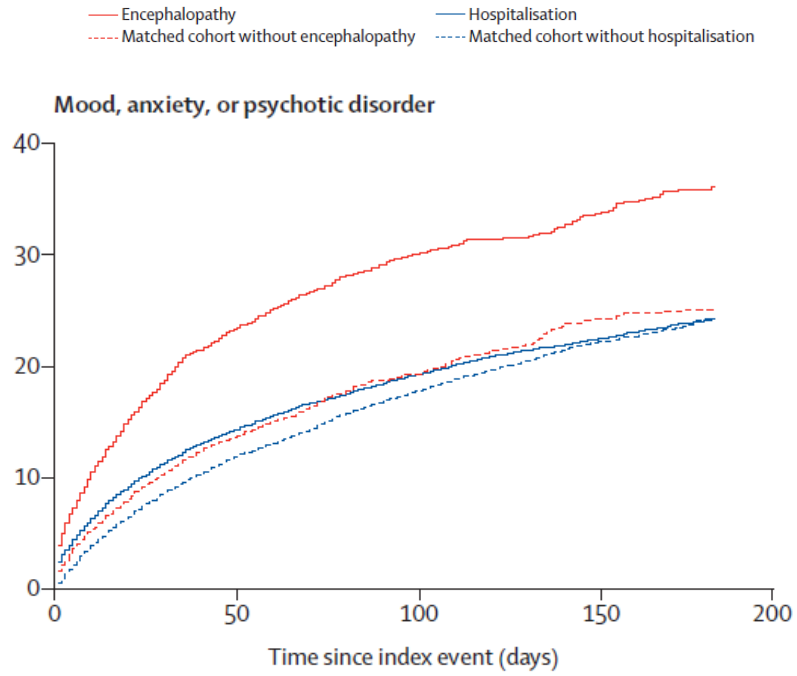


Long Covid and Mental Health

New onset psychiatric condition: + 18.1%



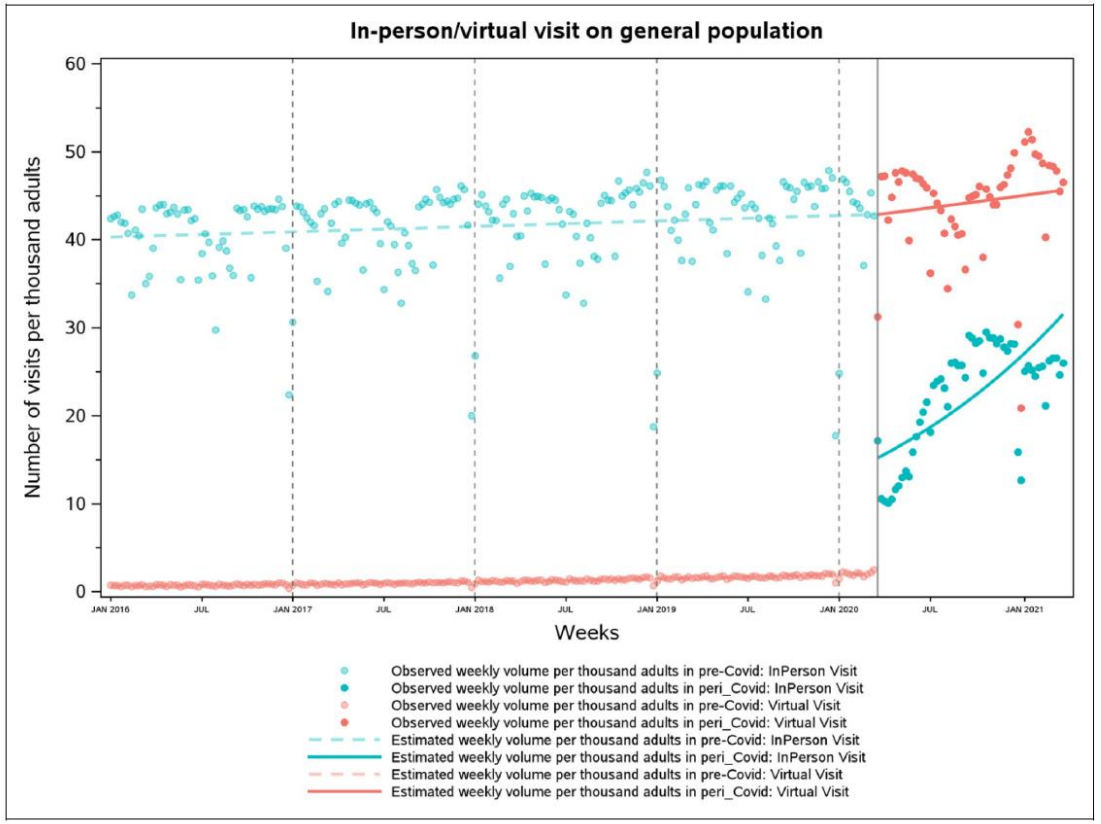
Taquet M et al. Lancet Psychiatry 2021



Higher risk with severe COVID-19 infection (hospitalization), intensive treatment unit admission, and encephalopathy (up to 80% had delirium, lasting 2x as long = 10 days)

https://ccforum.biomedcentral.com/articles/10.1186/s13054-020-03200-1

TRENDS OF VIRTUAL CARE DURING COVID-19: ONTARIO DATA



- Billing of virtual visits rose 21-fold after COVID-19
- Virtual visits did not recede after rebound in in-person visits
- Nearly all visits delivered by phone or non-OTN (Ontario Telemedicine Network) platform
- Other studies have shown high rates of phone only virtual visits (91.5%)

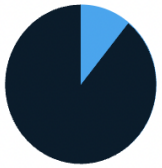
Fu R et al. J Telemed Telecare 2022; Bhatia RS et al. CMAJ Open 2021

CHANGES IN PATIENT AND PROVIDER PERCEPTIONS OF VIRTUAL CARE DUE TO COVID-19

How has COVID-19 changed the outlook for telehealth?

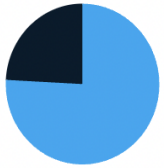
1 Consumer

Shift from:



11%
use of telehealth in 2019

To:



76%
now interested in using telehealth going forward

While the surge in telehealth has been driven by the immediate goal to avoid exposure to COVID-19, with more than 70 percent of in-person visits cancelled,[1] 76 percent of survey respondents indicated they were highly or moderately likely to use telehealth going forward,[2] and 74 percent of telehealth users reported high satisfaction.[3]

2 Provider

Health systems, independent practices, behavioral health providers, and others rapidly scaled telehealth offerings to fill the gap between need and cancelled in-person care, and are reporting

50–175x
the number of telehealth visits pre-COVID.[4]

In addition, **57%** of providers view telehealth more favorably than they did before COVID-19 and **64%** are more comfortable using it.[5]

McKinsey & Company July 2021

EVIDENCE FOR & INTEGRATION OF VIRTUAL PSYCHOSOCIAL CARE TO SUPPORT BARIATRIC SURGERY

PSYCHOSOCIAL INTERVENTIONS TO SUPPORT BARIATRIC SURGERY PATIENTS DURING COVID-19

Perspective
COVID-19 AND OBESITY

Obesity

The Impact of Coronavirus Disease 2019 on Bariatric Surgery: Redefining Psychosocial Care

Sanjeev Sockalingam [1,2,3,4], Samantha E. Leung [1,2], and Stephanie E. Cassin [1,3,5]

The global outbreak of the 2019 novel coronavirus disease has had a tremendous psychological impact on individuals around the world. Individuals with obesity are susceptible to distress and psychological sequalae secondary to this pandemic, which can have detrimental effects on obesity management. In particular, individuals undergoing bariatric surgery could experience increased emotional distress, resulting in increased eating psychopathology, mental health exacerbation, and difficulties with self-management. Addressing these challenges requires novel approaches to re-defining psychosocial care before and after bariatric surgery. Emerging evidence suggests that the remote delivery of care using virtual care models, including mobile and online modalities, could extend the reach of psychosocial services to individuals after bariatric surgery and mitigate weight regain or impairment in quality of life. Because of this pandemic, the rapid integration of virtual psychosocial care in bariatric surgery programs to address patients' needs will create new opportunities for clinical and implementational scientific research.

Obesity (2020) 28, 1010-1012.

The outbreak of coronavirus disease 2019 (COVID-19) has undoubtedly caused much distress among patients with obesity. The emergence of COVID-19, the largest outbreak of atypical pneumonia since the 2013 outbreak of severe acute respiratory syndrome (SARS), has radically changed our way of life and has caused significant mortality and massive stress on our health care system. COVID-19 may have detrimental effects on individuals with obesity, including increased risks of severe complications due to increased medical comorbidities in this population. Given that obesity alone is a major cause of physical and mental health impairment, the additive effect of COVID-19 can also impact patients' ability to sustain healthy lifestyle changes and routinely engage with their health care teams.

The current pandemic is also associated with additional psychological distress in the general population. Lessons learned from SARS suggest that approximately 35% of individuals at 1 month after pandemic infection experience moderate to severe depression or anxiety symptoms (1), and up to 64% of patients can have high levels of distress suggestive of psychiatric morbidity at 1 year after the pandemic (2). Cross-sectional survey data of the general public in mainland China during the COVID-19 outbreak showed that 54% of respondents self-reported moderate to severe levels of psychological distress (3). Self-isolation and quarantine have been common recommendations globally during the COVID-19 pandemic; however, these recommendations may precipitate additional distress, such as posttraumatic stress disorder and depression, especially when implemented for prolonged periods of time (4). Patients may experience additional challenges related to quarantine, including financial difficulties resulting from loss of employment, limited access to food and other household items, and a sense of isolation (5). Self-distancing measures and travel restrictions to reduce virus spread add additional barriers to traveling long distances to see health care teams in bariatric centers or to accessing in-person supports.

Moreover, approximately 70% of bariatric surgery candidates have a lifetime history of psychiatric illness, which could be exacerbated by COVID-19 pandemic-related stress (6). Data from SARS suggest that past psychiatric illness is a risk factor for developing active psychiatric illness after the pandemic (7). Extrapolating from these findings, bariatric patients may be at risk for mental health decompensation, which could impact obesity treatment adherence and long-term patient outcomes.

Elevated levels of distress secondary to COVID-19 may lead to emotional dysregulation, which can increase emotional eating and binge-eating symptoms before and after bariatric surgery (8,9). Postoperative eating psychopathology has been linked to poorer long-term outcomes, including diminished weight loss and weight regain (10). As the pandemic continues to rapidly evolve, a positive feedback loop between COVID-19–related distress, maladaptive eating behaviors, and psychosocial distress may develop. It is therefore imperative that patients be monitored closely for emotional dysregulation secondary to the COVID-19 pandemic in order to mitigate problematic eating behavior and support sustained improvement in weight and quality of life.

Despite the potential challenges for patients with obesity, health care teams can use several interventions to prevent COVID-19 sequalae using a multimodal approach starting from education and information sharing related to COVID-19 and moving to direct psychosocial services based on patient need (Figure 1). Evidence-based psychological interventions are needed for more severe distress in patients with

[1] Centre for Mental Health, University Health Network, Toronto, Ontario, Canada. Correspondence: Sanjeev Sockalingam (sanjeev.sockalingam@camh.ca) [2] Bariatric Surgery Program, Toronto Western Hospital, Toronto, Ontario, Canada [3] Department of Psychiatry, University of Toronto, Toronto, Ontario, Canada [4] Institute of Medical Science, University of Toronto, Toronto, Ontario, Canada [5] Department of Psychology, Ryerson University, Toronto, Ontario, Canada.

 Received: 4 April 2020; Accepted: 11 April 2020; Published online 22 May 2020. doi:10.1002/oby.22836

Education and Self-Care Strategies

- Provide credible information on COVID-19 & validate fears/worries
- Reinforce sleep hygiene and review nutrition

Self-Management Tools

- Recommend stress-management strategies (e.g. relaxation techniques, meditation)
- Leverage mobile health tools, such as self-management apps

Expand Supports

- Consider virtual support groups or forums

Psychosocial Care

- Virtual psychological treatments (e.g. cognitive behavioral therapy, dialectical behaviour therapy)

SOCKALINGAM S, LEUNG SE, CASSIN SE. OBESITY 2020

EVIDENCE FOR VIRTUAL MENTAL HEALTH CARE INTERVENTIONS FOR COVID-19 IN **NON-BARIATRIC** PATIENT SAMPLES

» **Systematic Review of Mental Health Interventions in Adults**

- 3 well-conducted trials showing that self-guided internet-based CBT, lay person support via telephone, and education and peer support improved depressive and anxiety symptoms

» **Rapid Review of Past Pandemics**

- Evidence for Psychological First Aid, CBT, music/relaxation intervention, nurse phone consultations/support

Bondardi O et al. Can J Psychiatry 2022; Soklaridis S et al. Gen Hosp Psychiatry 2020

RECENT SYSTEMATIC REVIEW: EVIDENCE FOR BARIATRIC SURGERY E-HEALTH INTERVENTIONS

Outcome	# of Studies	Description of Evidence
Eating Psychopathology	6	Significant improvement in disordered eating, binge eating and food addiction symptoms Mainly behavioural, CBT and ACT interventions
Quality of Life	5	Significant improvement in QOL in 3 of 5 studies
Depression	4	Significant improvement in depression over control for 1 study using PHQ9
Self-Efficacy	3	Significant improvement over controls

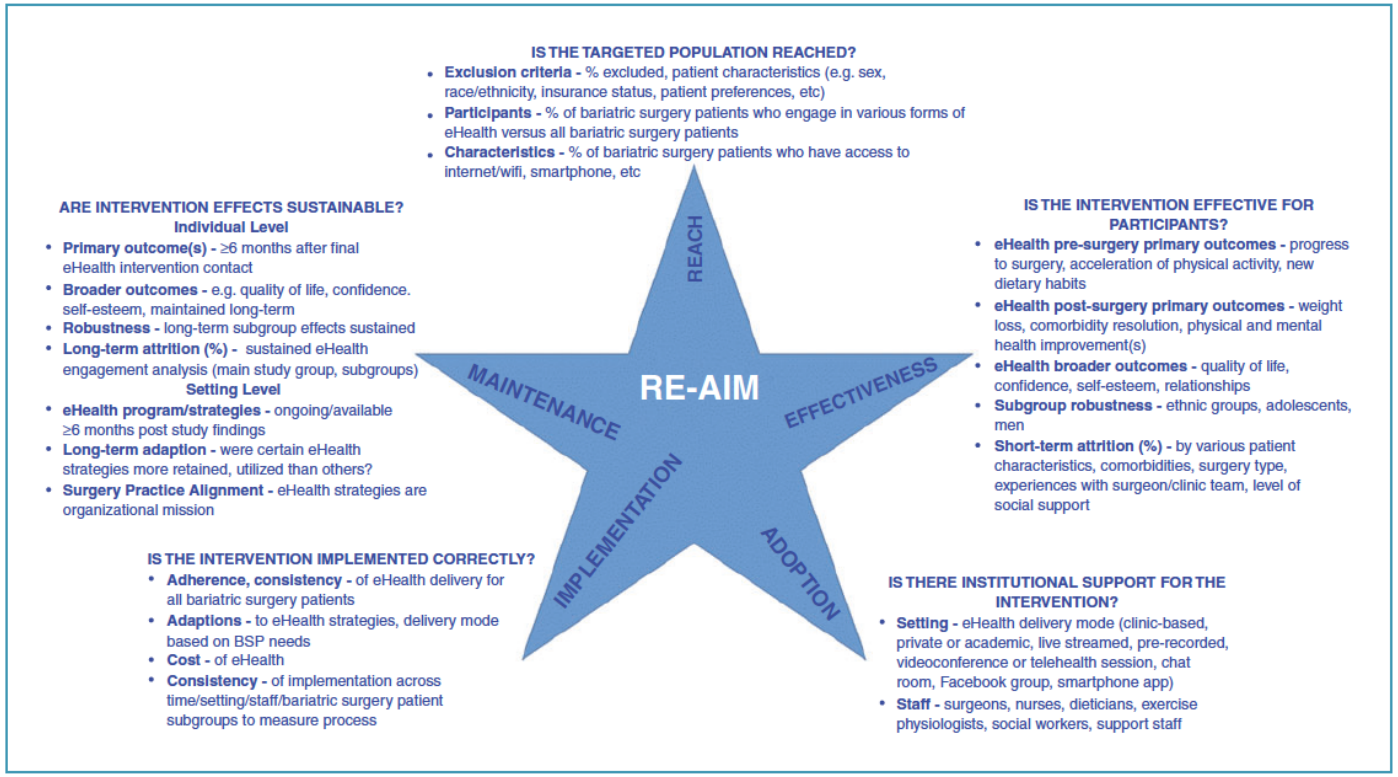
ACT: Acceptance and Commitment Therapy

Summary :

1. Overall equal effect of eHealth interventions vs. controls on weight loss
2. No studies specifically targeting weight regain via eHealth interventions
3. Most common intervention strategies were self-monitoring, problem solving, social support, goal setting, shaping knowledge

Wright C et al. Surg Obes Relat Dis 2021

CURRENT EVIDENCE FOR BARIATRIC SURGERY VIRTUAL (E-HEALTH) INTERVENTIONS: IMPLEMENTATION OUTCOMES



Findings:

- Limited literature on conceptual framework for studies on eHealth and intervention design
- Lack of maturity in the field on implementation science outcomes
- Some preliminary effectiveness studies but no long-term data
- Studies have not included allied health professionals' and patients' perceptions in terms of eHealth adoption

Messiah SE et al. Digital Health 2020

Telephone-Based Cognitive Behavioural Therapy (Tele-CBT) to Support Patients After Bariatric Surgery

ESTABLISHING EFFICACY OF TELE-CBT

- **Pre-surgery tele-CBT RCT** – showed significant reductions in binge eating (ES=0.93), emotional eating (ES=0.86), anxiety (ES=1.03); and depressive symptoms (ES=1.12)
- **Post-Surgery Open Label** - high effect sizes for improving eating, anxiety & mood symptoms
- **Post-surgery Food Addiction RCT** – showed significant reduction in food addictions symptoms 1-year post

DETERMINING TIMING OF DELIVERY

- Retention rate: Pre-Surgery – 72% vs. Post-Surgery – 74%
- Qualitative study – patients preferred CBT interventions at 12-months post-surgery

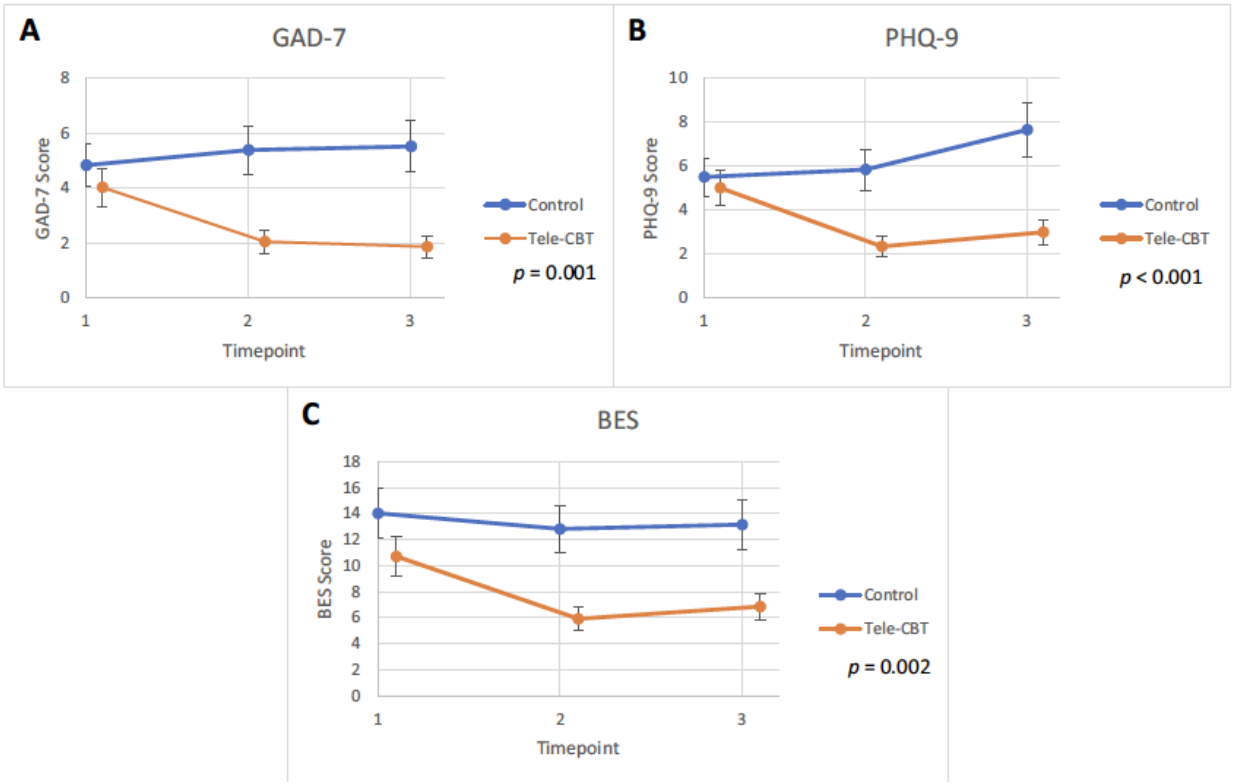
DETERMINING PREDICTORS OF RESPONSE

- Patients most likely to respond to Tele-CBT had higher binge eating symptoms or had higher rurality

Cassin SE, Sockalingam S, Wnuk S, Strimas S, Royal S, Hawa R, Parikh Sv. Cognitive Bheav Practice 2013; Cassin SE, Sockalingam S, Du C, Wnuk S, Hawa R, Parikh SV. Behav Res Ther 2016
Sockalingam C, Cassin SE, Wnuk S, Du C, Jackson T, Hawa R, Parikh CV. Obes Surg 2017; Sockalingam S, Leung S, Hawa R, Wnuk S, Parikh SV, Jackson T, Cassin SE. Obes Res Clin Pract 2019
Costa-Dookhan KA, Leung SW, Cassin SE, Sockalingam S. Can J Diabetes 2020; Cassin S, Leung S, Hawa R, Wnuk S, Jackson T, Sockalingam S. Nutrients 2020

CIHR IRSC
Canadian Institutes of Health Research | Instituts de recherche en santé du Canada

IMPACT OF TELE-CBT ON MENTAL HEALTH DISTRESS AND DISORDERED EATING AMONG BARIATRIC SURGERY PATIENTS DURING COVID-19: PRELIMINARY MULTI-SITE RCT



- 81 patients who were ~1-year post-MBS
- Randomized to Tele-CBT or standard bariatric centre team follow-up
- Tele-CBT – 7 x 1 hour sessions
- Followed until 18 months post-surgery
- 94% completed 1.25 y follow-up; 83% completed 1.5 y following
- 67% of patients reported worse mental health subjectively during COVID-19
- 54% reported challenges managing weight due to COVID-19

Sockalingam S, Leung SE, Ma C, Hawa R, Wnuk S, Dash S, Jackson T, Cassin SE. Obes Surg 2022

FUTURE IMPLICATIONS FOR PSYCHOSOCIAL INTERVENTIONS SUPPORTING BARIATRIC CARE

PSYCHOSOCIAL INTERVENTIONS TO SUPPORT BARIATRIC SURGERY PATIENTS POST COVID-19

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SOCKALINGAM S, LEUNG SE, CASSIN SE. OBESITY 2020

DIGITAL EQUITY: IMPACT ON VIRTUAL CARE

- Access to digital resources (internet & device)
- Limitations in living spaces & individual privacy
- Inability to address individuals' disabilities
- Limited culturally relevant modes of communication
- Socioeconomic instability

Crawford A, Serhal E. JMIR 2020

THE FUTURE OF E-HEALTH INTERVENTIONS FOR BARIATRIC SURGERY CARE

- Need for eHealth interventions to both:
  - Integrate into bariatric surgery care pathways
  - Personalize to individuals living with obesity to address equity and access issues
- Identify who responds best to eHealth interventions
- Advanced understanding of implementation factors to improve engagement and effect

Sockalingam S. Surg Obes Relat Dis 2021

SHAPING THE FUTURE OF VIRTUAL MENTAL HEALTH CARE

AI and Digital Mental Health Certificate Programs

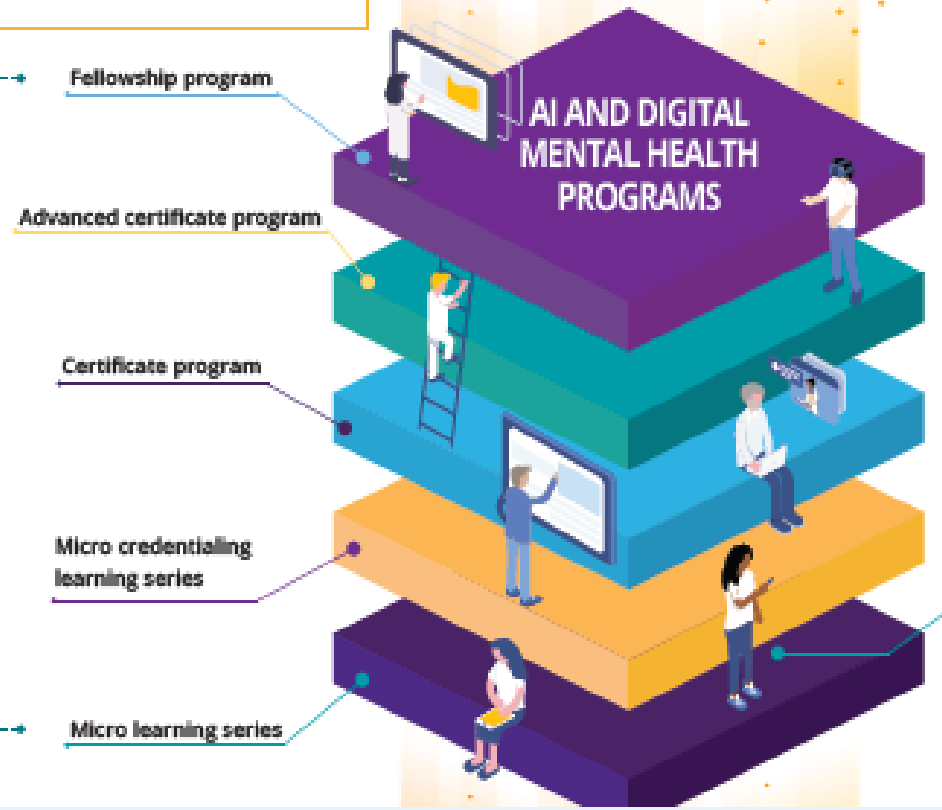
Preparing the mental health care workforce to deliver the next phase of digital transformation.

PROGRAM LEVELS/TRACKS

PROGRAM STRUCTURE

Stackable programs/Stackable credentialing

Flexible and customizable, allowing learners to stack up learning modules/courses/programs to match their interests, skills, job functions and roles.



CORE FEATURES

- competency-based learning
- blended learning approach
- co-production model
- credit and non credit learning units/modules
- stackable programs/stackable credentialing

AUDIENCE

- Allied health professionals
- Health care practitioners (all disciplines)
- Health care/service leaders and decision-makers, including:
  - administrators
  - advanced practice clinical practice leaders and program managers
  - ethics and privacy advocates
  - digital program managers and digital champions
  - educators
  - leaders in academic institutions
  - policy-makers
  - project managers.

AI AND DIGITAL MENTAL HEALTH Micro learning series

LEARNER ENGAGEMENT

2,334 individuals completed this training series (as of Nov. 29, 2021)

camh

https://digital.camhx.ca/

SUMMARY

- COVID-19 has accelerated use of virtual mental/behavioural health interventions
- Limited literature on virtual (eHealth) interventions to support bariatric surgery psychosocial care
- To date, evidence mainly for behavioural/CBT and ACT interventions for eating psychopathology and to lesser degree depression and anxiety
- Only one RCT for COVID-19 related disordered eating and mental health distress (Tele-CBT trial post-bariatric surgery)
- Further evidence needed on long-term outcomes, implementation outcomes and issues related to digital equity

THANK YOU…QUESTIONS

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- UHN Bariatric Surgery Psychosocial Research Lab