Integrating Digital and Virtual Care to Support Integrated Obesity Chronic Disease Management

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Objectives

Discuss	Discuss the ways in which virtual/digital technologies are used to support obesity care
Describe	Describe the benefits and limitations of virtual/digital obesity care
Discuss	Discuss current guidelines for virtual/digital obesity care

Why Virtual/Digital Care?

- Virtually delivered care has the potential to increase access to obesity care
- High-quality integrated care requires regular meetings with health care providers across different disciplines, and this can be facilitated using virtual platforms
- Virtual care options can reduce patient burden
  - Reduce travel time and expense
  - Reduce time off work
  - Easily accessible to patients with mobility challenges
- Can also facilitate communication among health care team

Almathami et al. (2020); Clark et al. (2025); Hinchliffe et al. (2022)

Potential Role of Virtual/Digital Obesity Care

Adv Ther (2022) 39:4397–4412
https://doi.org/10.1007/s12325-022-02265-4

REVIEW

The Potential Role of Digital Health in Obesity Care

Nigel Hinchliffe · Matthew S. Capehorn · Michael Bewick · John Feenie

- Telehealth and mobile health apps are already widely used in delivering healthcare
- In the immediate future, the most significant digital advancement in obesity care is likely to be the increased use of telehealth
- Over time this will be increasingly supported with mHealth apps and devices (e.g., wearable trackers)
- In the future, machine learning and artificial intelligence could make obesity care increasingly accessible, automated, and personalised
    - Predict that support may be delivered by proxy with an avatar or through a chatbot using AI technology
- Digital health could play an important role in developing a new approach to obesity care that recognises the complexity of obesity and provides a more patient-centred, precision approach

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REVIEW

The Potential Role of Digital Health in Obesity Care

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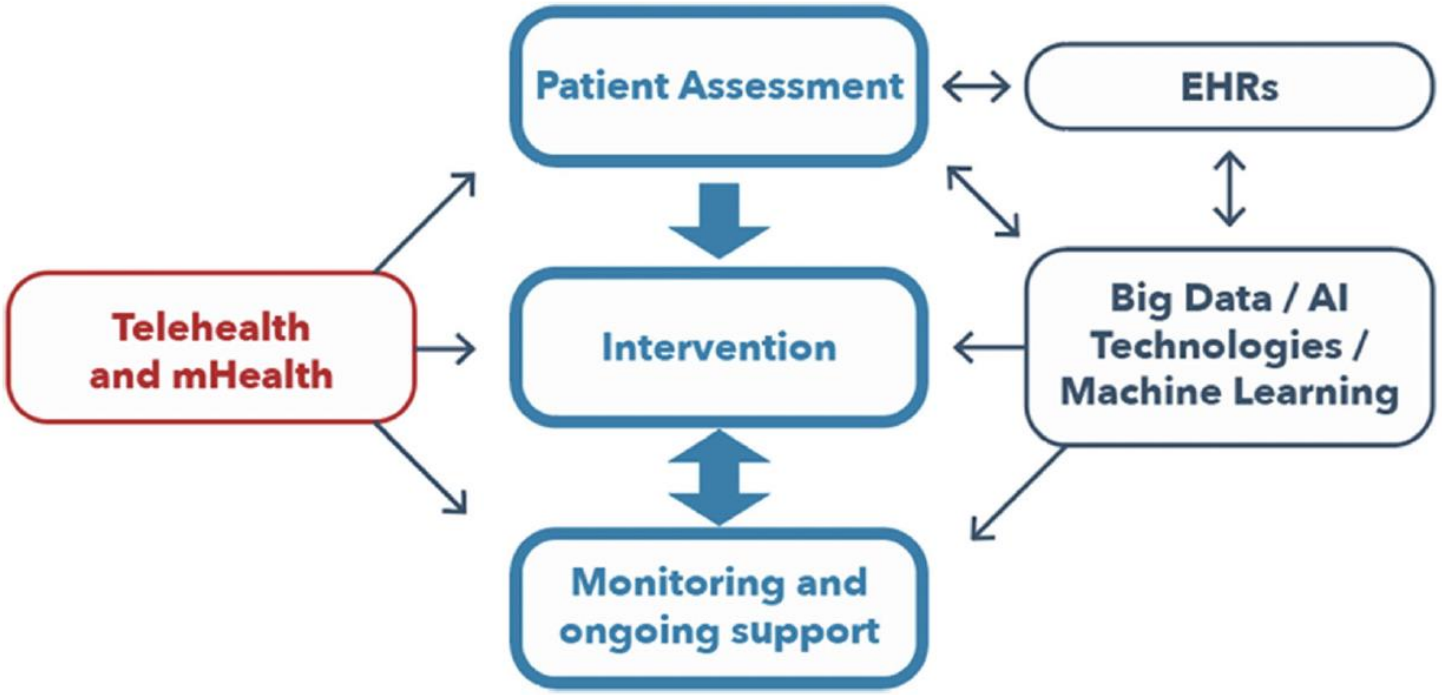

Fig. 1 Potential role of digital health in obesity care

- All stages of care can benefit, from patient assessment to treatment, and ongoing monitoring and support

Current Applications of Virtual/Digital Obesity Care

Telephone-CBT is an evidence-based intervention

Cognitive Behavioral Therapy for Bariatric Surgery Patients: Preliminary Evidence for Feasibility, Acceptability, and Effectiveness

Stephanie E. Cassin, *Ryerson University*
Sanjeev Sockalingam, *University of Toronto and Toronto Western Hospital*
Susan Wnuk, Rachel Strimas, and Sarah Royal, *Toronto Western Hospital*
Raed Hawa, *University of Toronto and Toronto Western Hospital*
Sagar V. Parikh, *University of Toronto*

Contents lists available at ScienceDirect
Behaviour Research and Therapy
journal homepage: www.elsevier.com/locate/brat

Shorter communication

A pilot randomized controlled trial of telephone-based cognitive behavioural therapy for preoperative bariatric surgery patients

Stephanie E. Cassin [a, b, *], Sanjeev Sockalingam [b, c], Chau Du [c], Susan Wnuk [b, c], Raed Hawa [b, c], Sagar V. Parikh [b, d]

OBES SURG
DOI 10.1007/s11695-016-2322-x

ORIGINAL CONTRIBUTIONS

A Pilot Study on Telephone Cognitive Behavioral Therapy for Patients Six-Months Post-Bariatric Surgery

Sanjeev Sockalingam [1,2,3,7] · Stephanie E. Cassin [2,3,4] · Susan Wnuk [1,2] · Chau Du [1] · Timothy Jackson [1,5] · Raed Hawa [1,2,3] · Sagar V. Parikh [2,6]

Contents lists available at ScienceDirect
Obesity Research & Clinical Practice
journal homepage: www.elsevier.com/locate/orcp

Telephone-based cognitive behavioural therapy for female patients 1-year post-bariatric surgery: A pilot study

Sanjeev Sockalingam [a,b,c,d,*], Samantha E. Leung [a,b], Raed Hawa [a,b,c], Susan Wnuk [a,b,c], Sagar V. Parikh [c,e], Timothy Jackson [b,f], Stephanie E. Cassin [a,c,g,**]

Obesity Surgery (2022) 32:1884–1894
https://doi.org/10.1007/s11695-022-05981-6

ORIGINAL CONTRIBUTIONS

The Impact of Telephone-Based Cognitive Behavioral Therapy on Mental Health Distress and Disordered Eating Among Bariatric Surgery Patients During COVID-19: Preliminary Results from a Multisite Randomized Controlled Trial

Sanjeev Sockalingam [1,2,3,4] · Samantha E. Leung [1] · Clement Ma [3,5] · Raed Hawa [1,2,4] · Susan Wnuk [1,2,4] · Satya Dash [1,6] · Timothy Jackson [1,7] · Stephanie E. Cassin [2,4,8]

nutrients

Article

Food Addiction Is Associated with Binge Eating and Psychiatric Distress among Post-Operative Bariatric Surgery Patients and May Improve in Response to Cognitive Behavioural Therapy

Stephanie Cassin [1,2,3,*], Samantha Leung [3,4], Raed Hawa [2,3,4], Susan Wnuk [2,3,4], Timothy Jackson [4,5] and Sanjeev Sockalingam [2,3,4,6,*]

JAMA Network Open

Original Investigation | Nutrition, Obesity, and Exercise

Efficacy of Telephone-Based Cognitive Behavioral Therapy for Weight Loss, Disordered Eating, and Psychological Distress After Bariatric Surgery
A Randomized Clinical Trial

Sanjeev Sockalingam, MD, MHPE; Samantha E. Leung, MSc; Clement Ma, PhD; George Tomlinson, PhD; Raed Hawa, MD; Susan Wnuk, PhD; Timothy Jackson, MD, MPH; David Urbach, MD; Allan Okrainec, MD; Jennifer Brown, MSc, RD, CBE; Daniella Sandre, PsyD; Stephanie E. Cassin, PhD

Obesity Surgery (2025) 35:4103–4113
https://doi.org/10.1007/s11695-025-08163-2

RESEARCH

A Randomized-Controlled Trial Examining Telephone-Based Cognitive Behavioral Therapy for Patients After Metabolic and Bariatric Surgery: 18 Month Follow-up Results

Stephanie E. Cassin [1,3] · Katey E. Park [1,2,3] · Samantha E. Leung [2] · Clement Ma [3,4] · George Tomlinson [3] · Raed Hawa [2] · Susan Wnuk [2,3] · Timothy Jackson [2,3] · David Urbach [5] · Allan Okrainec [2] · Jennifer Brown [6] · Daniella Sandre [6] · Sanjeev Sockalingam [2,3,4]

ELSEVIER

Surgery for Obesity and Related Diseases 17 (2021) 2065–2080

SURGERY FOR OBESITY AND RELATED DISEASES

Review article

Are eHealth interventions for adults who are scheduled for or have undergone bariatric surgery as effective as usual care? A systematic review

Charlene Wright, MNut&DietPrac[a,*], Rumbidzai N. Mutsekwa, MDiet&Nut[a,b,c], Kyra Hamilton, Ph.D.[d], Katrina L. Campbell, Ph.D.[a,e], Jaimon Kelly, Ph.D.[a,f]

- 14 studies
- Interventions delivered via internet modules, telephone, text messages, videoconferencing, mobile app, or some combination
- eHealth interventions found to be:
  - more effective than control for disordered eating
  - more or as effective than control for weight loss
- eHealth may be a suitable option when bariatric patients have no or limited access to healthcare teams or require additional support
- Future studies examining eHealth in a stepped-care approach would be beneficial

Current Cardiovascular Risk Reports (2021) 15: 17
https://doi.org/10.1007/s12170-021-00680-w

OBESITY AND DIET (G. RAO, SECTION EDITOR)

A Review of Telemedicine Interventions for Weight Loss

Kelsey Ufholz[1] · Daksh Bhargava[1]

- Examined remotely delivered telemedicine interventions with real time interaction (e.g., phone, video, synchronous text)
- Typically delivered as weekly counseling or educational sessions or complement to web-based interventions
- Delivered by a variety of health professionals or peer support leaders
- Telemedicine interventions led to improvements in body weight, physical activity, and dietary behaviours
- Satisfaction with telemedicine interventions was high

Current Obesity Reports (2023) 12:371–394
https://doi.org/10.1007/s13679-023-00515-2

REVIEW

The Effectiveness of eHealth Interventions for Weight Loss and Weight Loss Maintenance in Adults with Overweight or Obesity: A Systematic Review of Systematic Reviews

Sakris K. E. Kupila[1] · Anu Joki[2] · Laura-U. Suojanen[2] · Kirsi H. Pietiläinen[1,2]

- 26 systematic reviews including 338 original studies
- eHealth interventions are:
  - more effective than control interventions or no care
  - comparable to face-to-face interventions
- Interventions with human contact are more effective than those that are fully automated
- eHealth interventions can be a valuable tool for delivering obesity care more economically

Review

Assessing the Uses, Benefits, and Limitations of Digital Technologies Used by Health Professionals in Supporting Obesity and Mental Health Communication: Scoping Review

Amanda Kearns[1], MPH, MBS; Anne Moorhead[2], PhD; Maurice Mulvenna[3], PhD; Raymond Bond[3], PhD

- 8 studies
- Health providers (psychologists, dietitians, social workers, and health coaches) used e-mail, text, telephone, video, and web-based platforms (often a combination)
- Digital tools used to facilitate virtual appointments, diet and mental health monitoring, and motivational and educational support through group therapy, 1-on-1 sessions, and hybrid models
- Benefits: enhanced access to care and engagement, perceived stigma reduction, privacy, personalized digital cognitive behavioral therapy, and improved physical health outcomes
- Limitations: engagement difficulties due to conflicting commitments, misinterpretation of text messages, preference for in-person sessions among some patients

How do health professionals and the public perceive the use of digital communication tools in obesity and mental health care?

Amanda Kearns, Maurice D. Mulvenna, Raymond Bond & Anne Moorhead

- Both groups valued face-to-face interaction most highly
- Health professionals were likely to use traditional methods (telephone consultations, video conferencing platforms, secure email systems, electronic health records). Health professionals were more likely to view video or telephone interactions as sufficiently empathetic, whereas the public expressed greater scepticism toward these formats (though they preferred telephone over video).
- Both groups reported low interest in emerging technologies, such as chatbots and virtual reality. As digital health tools continue to evolve, longitudinal research is needed to track shifts in attitudes, use patterns, and adoption barriers over time.
- Important to design digital tools that respond to emotional cues and promote trust. Future research should explore how digital communication strategies can be co-designed with both health professionals and users.

Current evidence supports the use of virtual/digital care to supplement, rather than replace, conventional face-to-face care

Technology-based programming may be offered in instances where conventional care is unavailable, not feasible or less preferred by the patient

Technologies that employ a more personalized approach are superior to those that operate independent of user characteristics or feedback

Summary

There has been a surge in original research and review papers on virtual/digital obesity care since COVID-19.

Virtual/digital technologies can enhance the accessibility, quality, and efficiency of care.

Virtual/digital technologies can facilitate communication among healthcare providers, supporting an integrated approach to care.

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