



# **Body image concerns, depression, suicidality and psychopharmacological changes in post-operative bariatric surgery patients: A mixed-methods study from a healthcare provider perspective**

Saturday, November 17th, 2018

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# Agenda

- Background
  - Scoping review
- Why this research matters?
  - Idea conception
  - Research objectives
- Methodology
- Results
- Discussion
  - Limitations
  - Key takeaways



# Background

- I searched **PubMed** and **Embase** for articles that studied and analysed psychological outcomes for bariatric surgery patients post-operatively.
- This is what I found...



**Background**

*Why it matters?*

*Methodology*

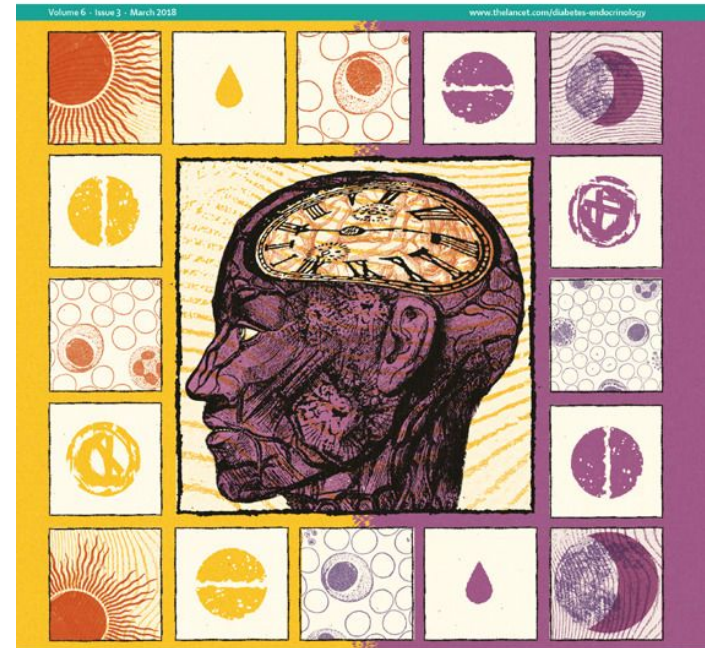
*Results*

*Discussion*

# Background

- A prospective cohort study was published in The Lancet: Diabetes & Endocrinology that associated **gastric bypass surgery** with an **increased risk of self-harm and suicidality**.
- Patients living in **rural communities** were found to be **more vulnerable** to adverse psychological outcomes following bariatric surgery.
  - Neovius, M. et al. (2018).

## THE LANCET Diabetes & Endocrinology



### Articles

Once-daily, modified-release hydrocortisone for adrenal insufficiency  
See page 173

### Articles

Wound closure with sucrose octasulfate dressing in diabetic foot ulcers  
See page 186

### Series

Obesity: genetics, pharmacotherapy, and metabolic health  
See page 223, 237, and 249

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# Background

- The American Journal of Psychiatry published a paper that linked bariatric surgery patients post-operatively with:
  - Decreased life satisfaction.
  - Excess skin folds leading to body image concerns.
  - De novo binge eating disorders and substance use disorders.
- The authors recommended **routine integration of psychologists into bariatric surgical teams** to provide counselling prior to and following patients' surgeries.
  - Sockalingam, S. (2017).

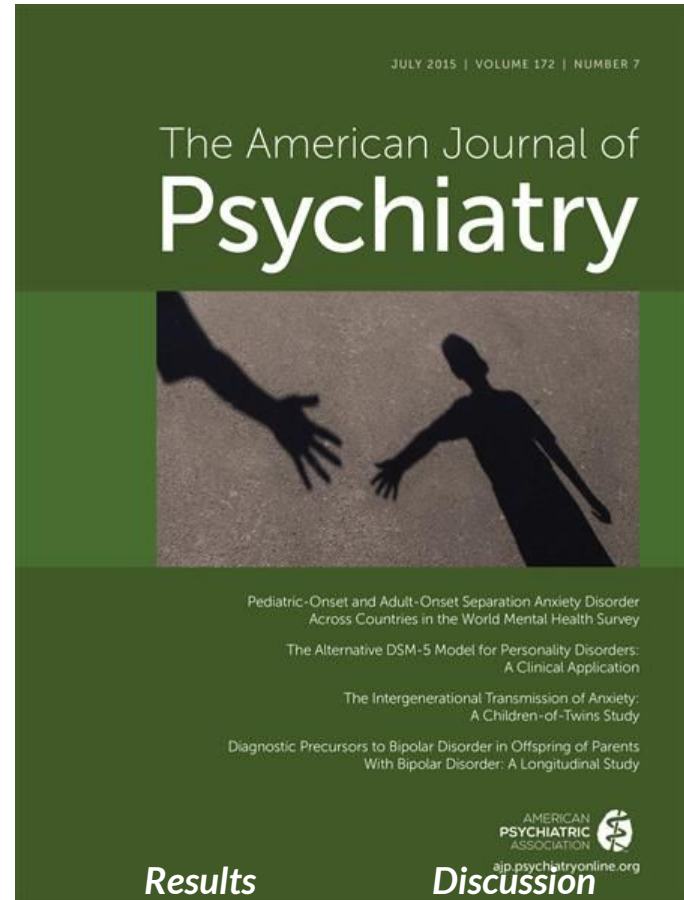
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# Background

- The American Journal of Medicine reported that **long-term surveillance of bariatric surgery patients post-operatively** was advised in order to track their psychological symptoms longitudinally and **minimize their suicide risk**.
  - Tindle, H. (2010).



1267	Universal Definition of Myocardial Infarction 4 Alpert	1326	Readmission Rates for Medicare and Non-Medicare Patients Angraal et al
1269	Hospitalists, Medical Education, and US Health Care Costs Dalen et al	1334	Vasculoprotective Therapy for Peripheral Artery Disease Hackam and Vyas
1272	The Case of the Vanishing Exam Patel et al	1342	Socioeconomic Inequalities in Hospital Admissions Among People with Diabetes Shather et al
<b>COMMENTARIES</b>		1361	Improved Outcomes in Atrial Fibrillation Using the ABC Pathway Proietti et al
1281	The Limits of Cardiac Performance Rao et al	<b>BRIEF OBSERVATION</b>	
1287	Management of Stable Coronary Artery Disease Weintraub et al	1389	Chronic Complications of Silicone Leakage Ryu et al
1295	Myelopathy Bhattacharyya	<b>AAIM PERSPECTIVES</b>	
1319	Conduction Dysfunction and Near Expulsion Gleber et al	1393	Career-Focused Mentoring for Clinician Educators Kirsch et al
<b>IMAGES IN RADIOLOGY</b>		<b>PERSONOMICS</b>	
1323	Wernicke's Encephalopathy Robinson and Patel	1401	Invisible Elephants Peter

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# Why this research matters?

- Bariatric surgery is linked to a **reduction in traditional cardiovascular risk factors** as well as an improvement in cardiac structure and function.
  - Vest, A. (2012). "Bariatric surgery and cardiovascular outcomes: a systematic review." Heart BMJ.
- The **obesity trend in both adult and child populations** is expected to **rise** in our province leading to increased rates of hypertension, diabetes, cardiovascular disease and avoidable mortality, thus indicating an expected **increased demand for bariatric surgery**.
- Given the associations between bariatric surgery and adverse psychological outcomes, **further data is needed**.

Background

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# Idea conception

- I proposed the study to Dr. Smith who agreed to it and explained that the bariatric surgical team had been looking into **potentially recruiting a psychologist**.
- Currently the team follows up with patients for **one year post-operatively**.
- Certain public mental health services in St. John's had been outright **refusing to see bariatric surgery patients**.
- It seemed like a **worthwhile topic to investigate**.



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# Objectives

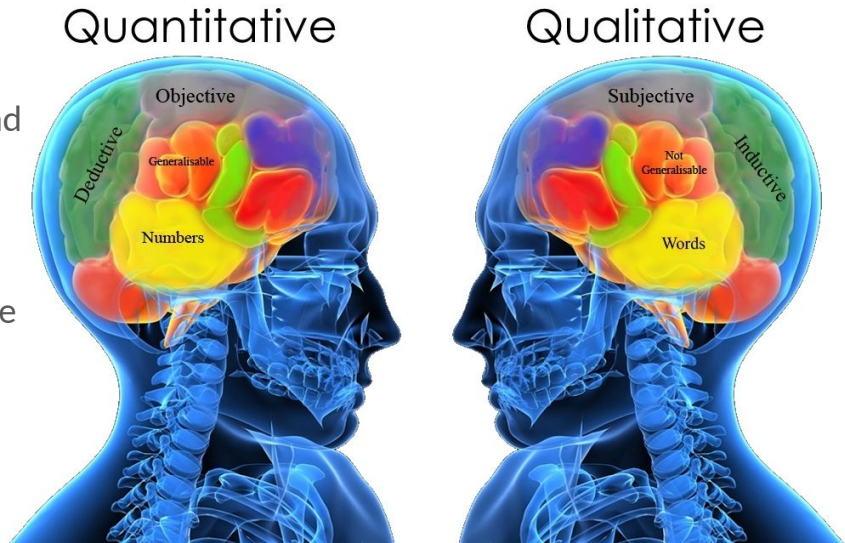
1. Explore the perspectives of health care providers with respect to the most common **psychological challenges facing bariatric surgery patients post-operatively** in Newfoundland and Labrador.
2. Investigate the **potential benefits and barriers of integrating a psychologist** into the bariatric surgical program.
3. **Develop recommendations and encourage partnerships** that will lead to more comprehensive and **longitudinal healthcare services** for these patients.



# What do healthcare providers think are the **potential benefits and barriers** of integrating a psychologist into the bariatric surgical program in Newfoundland and Labrador?

# Methodology

- A **mixed-methods approach** was used.
- An **online survey** was created with **Qualtrics** Software and distributed via the Newfoundland and Labrador College of Family Physicians, Department of Psychiatry, Association of Psychologists of Newfoundland and Labrador and to the health care providers comprising the bariatric surgical team.
- **Semi-structured in-person and telephone interviews** were conducted.
- Any trends were used to further our understanding of the current situation.



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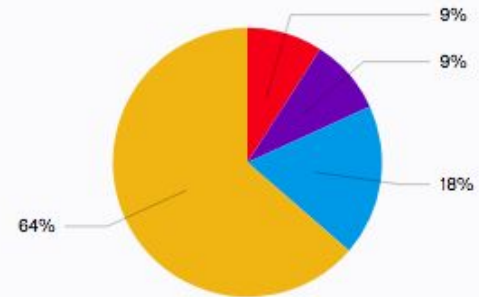
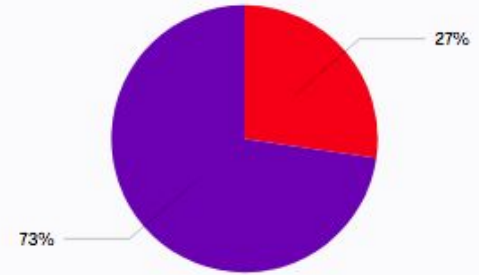
# Why Go Qualitative?

- The **research question is exploratory** in nature and requires a probing and personal medium, such as a personal interview.
- A personal interview uncovers a **participant's thoughts, ideas, knowledge, anecdotes and experiences.**
- A semi-structured interview allows for flexibility.
- A personal interview aims to **uncover the human experience** and is more compelling than quantitative data.



# Survey Results

- Questions=24
- N=11
- 73% females, 27% males
- 1 manager, 1 nurse practitioner, 1 dietitian, 1 surgical resident, 1 psychiatrist, 2 surgeons, 4 family physicians
- Years in practice:
  - 0-5 years 9%
  - 6-10 years 9%
  - 11-15 years 18%
  - 16+ years 64%



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# Survey Results

- Have any of your patients experienced **newly onset substance abuse** post-operatively?
  - 18%
- Have any of your patients experienced **newly onset depression** post-operatively?
  - 36%
- Have any of your patients experienced **newly onset psychopharmacological changes** post-operatively?
  - 36%
- Have any of your patients experienced **newly onset body image concerns** post-operatively?
  - 55%



# Survey Results

- Have any of your patients experienced **newly onset eating disorders** post-operatively?
  - 55%
- Have any of your patients **warranted a referral to either psychology or psychiatry** post-operatively?
  - 55%
- Interested in learning more or **willing to support an initiative** aimed at improving the psychological wellbeing of bariatric surgery patients post-operatively?
  - 100%





# Qualitative Results

- ❖ N=7
- ❖ 11 emerging themes including:
  - Unrealistic expectations
  - Lifelong commitment (i.e. behavioural modifications, food journals, good compliance, etc.)
  - Stigmatized population (within healthcare)
  - Niche expertise needed
  - Accessibility issues (i.e. 2-year wait times if no insurance)
  - Provincial lack of resources \$\$\$
  - GPs overwhelmed (i.e. not a high-priority, ≠ skill set)
  - No skipping the queue
  - Budgeting and office space barriers
  - Disappointment
  - Next steps unknown

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If applicable, which **adverse psychological outcomes** were experienced post-operatively by your patients following their bariatric surgery?



## Direct quotes

- *“Self esteem, body image, revert to old eating habits/food addictions/binge eating behaviours, marriage strains, social pressures”*
- *“Increased anxiety”*
- *“Severe depression due to the difficulty with weight issues they still have”*
- *“Excess skin folds”*
- *“Not losing as much weight as hoped for”*
- *“Depression, increased anxiety, resurgence of body image or post-trauma issues”*



## Direct quotes

- *“They all watch my 600 lb life and all these shows. They’re all on Facebook groups. They’re comparing themselves to other people who have had surgery. They’re a very tight knit group of patients. They all talk to each other, they all have each other on social media, so you get a lot of people saying “well, so and so lost this much weight, why didn’t I lose that much weight?”*



## Direct quotes

- *“A lot of times we do see them be referred on for plastic surgery for excess skin, which most if not all of them have and a lot of times they’re turned down by plastics because they’re still obese. They still haven’t reached a BMI of 30, which is what plastics wants them to be” [otherwise they’re at] a higher risk for complications.”*

In your professional experience, does the bariatric surgical program **safeguard patients' psychological wellbeing** before and after surgery?



## Direct quotes

- *“We ask about it”*
- *“No I have called the program for support or resources and was given no direction”*
- *“Yes, good follow up by team. Good prep in advance”*
- *“The program attempts to identify those patients with acute onset or poorly controlled chronic mental health/addictions issues...The surgery program does rely on external mental health resources to be responsive and manage these issues”*

In your professional experience, **how** has the bariatric surgical program managed patients who experienced adverse mental health outcomes in the past?





## Direct quotes

- *“Refer to psychology who have been reluctant to see these patients”*
- *“Not at all. No psychological preparation prior to surgery and no support after surgery”*
- *“They haven’t, as I have tried to contact the program for assistance to no avail. These patients have to enter the general psychiatric treatment system which is already lacking”*
- *“Patients are referred to the appropriate services. It is widely acknowledged that existing mental health and psychological services have issues with timely access and have often denied access for bariatric patients. There is a significant gap in services and expertise for this population”*

# Discussion

- A **worthwhile but controversial topic** to investigate further.
- **Health considerations**
  - The potential to improve psychological health outcomes by increasing surveillance and accessibility to mental health resources.
- **Ethical considerations**
  - Principle of justice (equal treatment for all).
  - Principle of nonmaleficence (do no harm).
  - Principle of beneficence (do good).
- **Financial considerations**
  - Limited \$\$\$ to go around, not a priority population.





# LIMITATIONS

UNTIL YOU SPREAD YOUR WINGS,  
YOU'LL HAVE NO IDEA HOW FAR YOU CAN WALK.

*Background*

*Why it matters?*

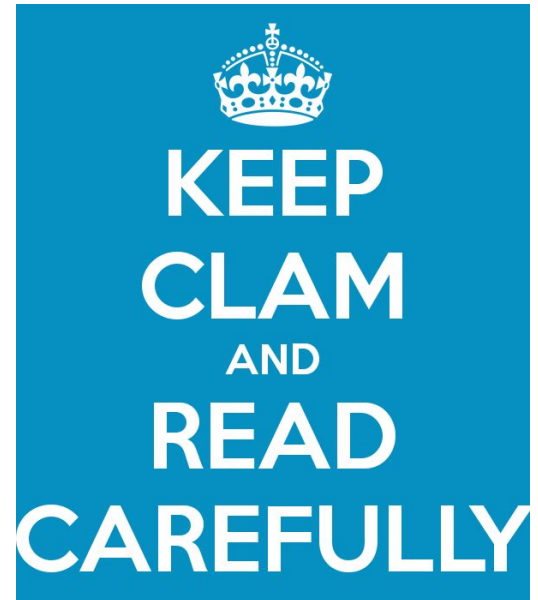
*Methodology*

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***Discussion***

# Limitations

- The **quality of qualitative research is highly dependent on the researcher's** individual skills and experience.
  - The PI has qualitative research experience in the Dept. of Community Health and Epidemiology at Queen's University.
- **7 participants for the personal interviews.**
  - Interviews are time-intensive and several hours were required to interview, transcribe and analyse a single discussion.
  - Grounded theory approach whereby additional interviews may be later conducted on specific themes and areas of inquiry as the analysis unfolds.
- **Low N in the survey.**
  - There is a typically low response rate in similar types of studies.
- **Convenience sample.**
  - Not randomized.



What do healthcare providers think are the **potential benefits and barriers** of integrating a psychologist into the bariatric surgical program of Newfoundland and Labrador?

# Key Takeaways

- Integrating a psychologist into the bariatric surgical team...

- **Benefits:**

- Significant benefits for specific patients who would have timely access to these services.
- Specialized mental health care worker to identify and manage issues and would benefit the team.
- More avenues for GPs to expedite psych referrals.

- **Barriers:**

- No \$\$\$ in the bariatric surgical team's budget to recruit a psychologist.
- No office space for a psychologist @ Major's Path.
- A psychologist would be more \$\$\$ than a social worker.



*Background*

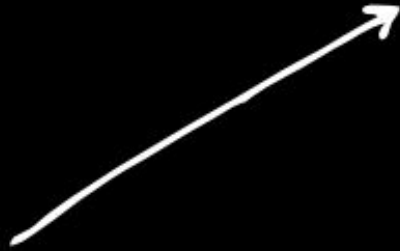
*Why it matters?*

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Success



what people think  
it looks like

Success



what it really  
looks like



# Funding for this research

- Mach Gaensslen Foundation of Canada Award





# Questions?





# References

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