PATIENT PERSPECTIVES ON PREHABILITATION IN GENERAL SURGERY

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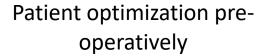


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Introduction to Surgical Prehabilitation







Improve ability to withstand stress of surgery



Demonstrated to decrease length of stay, improve functional outcomes, and decrease complications

Prehabilitation Modalities

Unimodal or Multimodal



Nutrition



Exercise



Anxiety management



Smoking cessation

Objectives

01

Understand the patient perspectives on pre-operative optimization in General Surgery

02

Assess patient interest in various modalities of prehabilitation

03

Plan for future prehabilitation interventions in our patient population

Methods

- Survey created using SF-12 and specific questions relating to prehabilitation modalities
 - Nutritional assessment
 - Smoking cessation counselling
 - Mindfulness sessions
 - Exercise program
 - Medication review
- Distributed to patients at General Surgery clinics at Health Sciences North
 - Print and SurveyMonkey format

PRE-OPT STUDY

A research study looking at the potential role for a pre-operative exercise and nutrition program is being considered at HSN.

The survey will take approximately 5 minutes of your time.

Participation in the survey is completely voluntary and confidential.

OVERALL PHYSICAL AND EMOTIONAL HEALTH

In general, would you say your health is:

O Poor	O Fair	O Goo	d O Very	good O Excellent
Does your he		TLY LIMIT Y	OU in these acti	
MODERATE a		illited a lot	Littlited a little	Not illilited at all
(moving a tab vacuuming, g	le,	0	0	О
Climbing SEVI flights of stair		0	О	О
In the PAST 4	WEEKS, as a	result of yo	ur physical heal	th, have you:
			Yes	No
ACCOMPLISI would like	HED LESS tha	n you	O	O
Been limited other activit	l in the KIND	of work or	o	О
In the DAST 4	WEEKS as a	recult of ve	ur omotional he	ealth, have you:
iii tile PASI 4	WEEKS, as a	result of yo	Yes	No
ACCOMPLIS	HED LESS tha	n vou	1.03	110
would like	TED EESS tild	you	О	O
Completed work or other activities LESS CAREFULLY than usual			O	O
			AIN interfere wi	th your normal work?

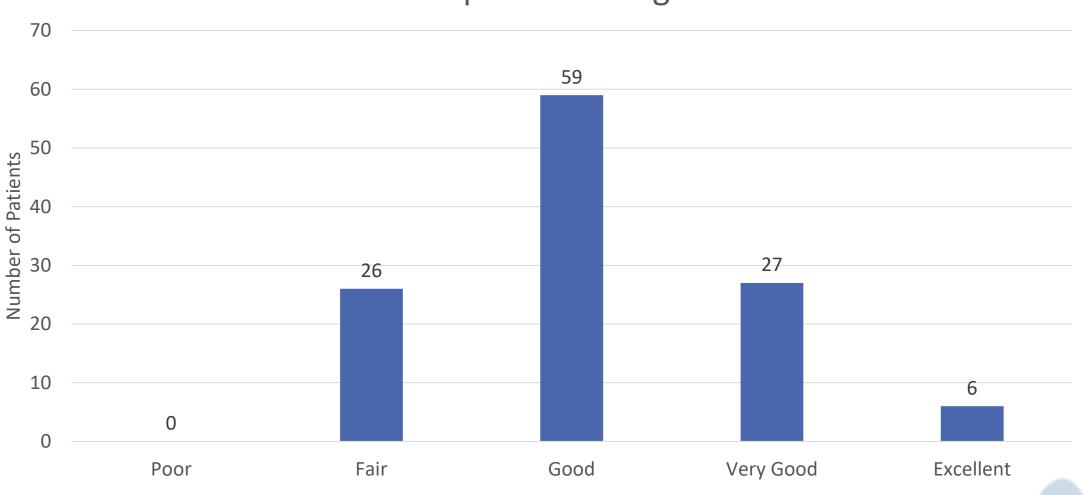
How much of the time during the PAST 4 WEEKS have you felt: Never the time time Calm and Peaceful O O You have a lot of Downhearted and 0 Your PHYSCIAL or **EMOTIONAL** health interfered with social activities PRE-HABILITATION PROGRAM Are you interested in any of the following programs? No Yes One-on-one nutritional assessment \mathbf{O} 0 Smoking cessation counseling 0 Guided group sessions on mindfulness to minimize anxiety/stress about surgery A structured exercise program to increase physical wellbeing prior to surgery Medication review \mathbf{O} O Concerns about being involved in the above programs Please specify: What are the top 3 questions you would like to ask your SURGEON?

Results

N = 123



Global Self-Reported Rating of Health

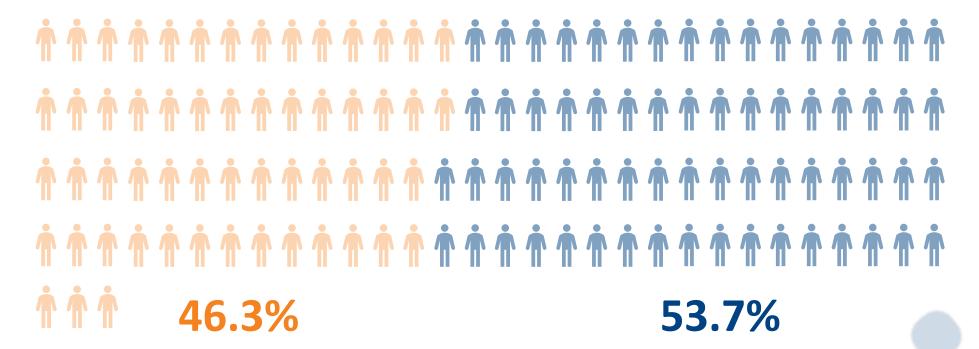


Overall Health Limiting Activities

N = 123

No limitations (57)

Some limitations (66)

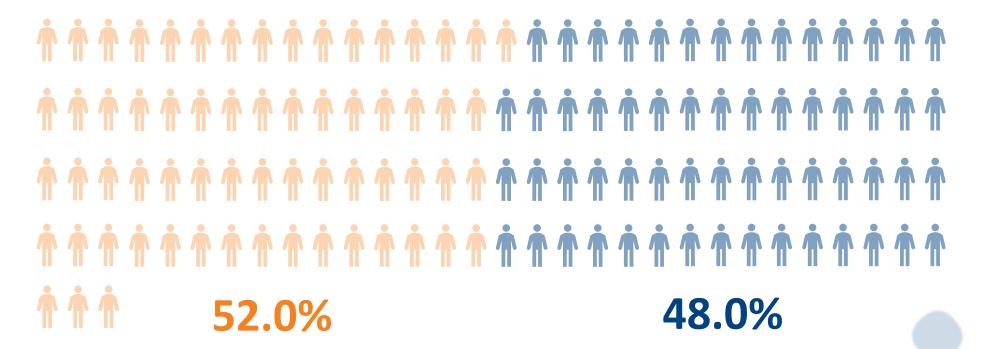


Limited due to Physical Health

N = 123

No limitations (64)

Some limitations (59)



Limited due to Emotional Health

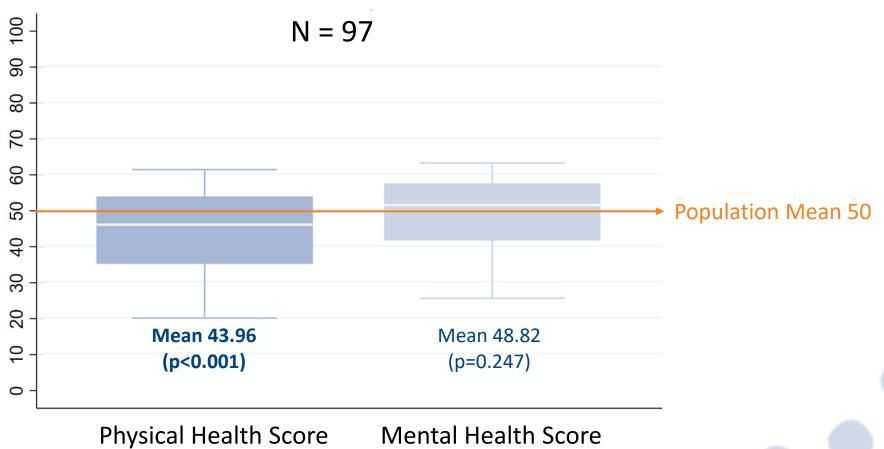
N = 122

No limitations (76)

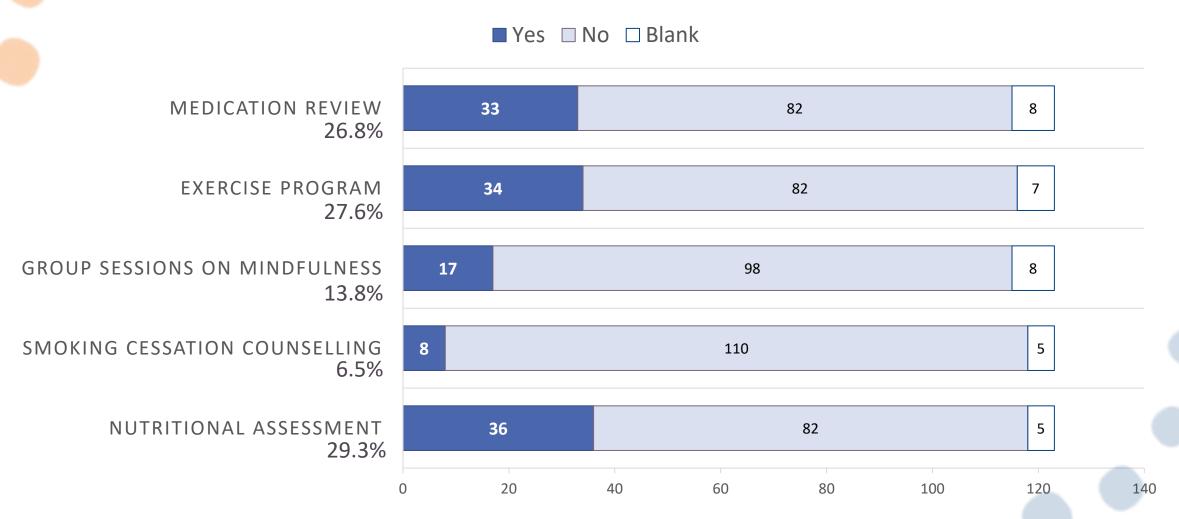
Some limitations (46)



Analysis of SF12



SELF-RATED INTEREST IN PARTICIPATING IN SPECIFIC PREHABILITATION PROGRAM





Expected perioperative course

Risks of procedure
Pain

Return to work/activity

Possible complications

Top Questions to Ask your Surgeon



Strategies to improve patient-centered outcomes

Improve symptoms (ex: increase energy, improve pain)

Prevention of complications and recurrence

Diet and exercise recommendations



Natural history of disease, etiology of symptoms, and treatment options

Explanation for symptoms and etiology
Results of workup

Limitations

- Self-reported data
- Did not obtain baseline characteristics of patients who participated
 - Pre-op, post-op or non-operative patients
 - Medical and psychiatric history, including smoking status
 - Participation in pre-habilitation program
 - Level of education
- No education provided on role and benefits of pre-habilitation

Summary



Many limited by current health

Only ¼ "Very Good" or "Excellent" health

½ limited in their activities



Concerned about outcomes of surgery

What they can do to improve outcomes and quality of life



Limited interest in pre-habilitation

Least interested in smoking cessation (6%)

Most interested in exercise program, nutritional assessment, and medication review (<30%)

Concerns about privacy, cost, time, and energy



Next steps

Patient education to improve buy-in in our center

Implementation of prehabilitation



Health Sciences North Horizon Santé-Nord



Thank You!

References

Agasi-Idenburg CS, Zuilen MK, Westerman MJ, Punt CJA, Aaronson NK, Stuiver MM. "I am busy surviving" - Views about physical exercise in older adults scheduled for colorectal cancer surgery. J Geriatr Oncol. 2020;11(3):444-450. doi:10.1016/j.jgo.2019.05.001

Agathis AZ, Aalberg JJ, Garvey A, Divino CM. Assessing long term quality of life in geriatric patients after elective laparoscopic cholecystectomy. Am J Surg. 2020;219(6):1039-1044. doi:10.1016/j.amjsurg.2019.08.021

Barakat HM, Shahin Y, Khan JA, McCollum PT, Chetter IC. Preoperative Supervised Exercise Improves Outcomes After Elective Abdominal Aortic Aneurysm Repair: A Randomized Controlled Trial. *Ann Surg.* 2016;264(1):47-53. doi:10.1097/SLA.00000000001609

Barberan-Garcia A, Ubré M, Roca J, et al. Personalised Prehabilitation in High-risk Patients Undergoing Elective Major Abdominal Surgery: A Randomized Blinded Controlled Trial. *Ann Surg.* 2018;267(1):50-56. doi:10.1097/SLA.0000000000002293

Beck A, Vind Thaysen H, Hasselholt Soegaard C, Blaakaer J, Seibaek L. Prehabilitation in cancer care: patients' ability to prepare for major abdominal surgery [published online ahead of print, 2020 Feb 11]. Scand J Caring Sci. 2020;10.1111/scs.12828. doi:10.1111/scs.12828

Bolshinsky V, Li MH, Ismail H, Burbury K, Riedel B, Heriot A. Multimodal Prehabilitation Programs as a Bundle of Care in Gastrointestinal Cancer Surgery: A Systematic Review. *Dis Colon Rectum*. 2018;61(1):124-138. doi:10.1097/DCR.00000000000000987

Dunne DF, Jack S, Jones RP, et al. Randomized clinical trial of prehabilitation before planned liver resection. Br J Surg. 2016;103(5):504-512. doi:10.1002/bjs.10096

Ferreira V, Agnihotram RV, Bergdahl A, et al. Maximizing patient adherence to prehabilitation: what do the patients say?. Support Care Cancer. 2018;26(8):2717-2723. doi:10.1007/s00520-018-4109-1

Gillis C, Buhler K, Bresee L, et al. Effects of Nutritional Prehabilitation, With and Without Exercise, on Outcomes of Patients Who Undergo Colorectal Surgery: A Systematic Review and Meta-analysis. *Gastroenterology*. 2018;155(2):391-410.e4. doi:10.1053/j.gastro.2018.05.012

Minnella EM, Awasthi R, Loiselle SE, Agnihotram RV, Ferri LE, Carli F. Effect of Exercise and Nutrition Prehabilitation on Functional Capacity in Esophagogastric Cancer Surgery: A Randomized Clinical Trial. JAMA Surg. 2018;153(12):1081-1089. doi:10.1001/jamasurg.2018.1645

Minnella EM, Bousquet-Dion G, Awasthi R, Scheede-Bergdahl C, Carli F. Multimodal prehabilitation improves functional capacity before and after colorectal surgery for cancer: a five-year research experience. Acta Oncol. 2017;56(2):295-300. doi:10.1080/0284186X.2016.1268268

Nakajima, H., Yokoyama, Y., Inoue, T. et al. Clinical Benefit of Preoperative Exercise and Nutritional Therapy for Patients Undergoing Hepato-Pancreato-Biliary Surgeries for Malignancy. Ann Surg Oncol 26, 264–272 (2019). https://doi.org/10.1245/s10434-018-6943-2