



RESIDENT ICE CREAM ROUNDS

Assessing the impact of Resident Ice Cream Rounds on resident
wellbeing and program satisfaction

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Project Type: Research

Residency is hard!

- Period of great transition – increasing responsibility, while remaining a student
- 48% of CMGs complete residency in a different location than their UGME¹
- Most recent CMA physician health survey (2021) 58% of medical residents experienced a high level of burnout, marking a significant increase of nearly 22% since 2001²
- FM brings unique challenges
 - *2 short years*
 - *Comprehensive knowledge base and skills*
 - *Pressure from a strained healthcare system → Governing bodies and associations actively advocate to expand patient load, diversify skillset, address gaps in local communities³⁻⁶*
- Undoubtedly, this pressure trickles down to residents intensifying the stress during an already challenging transition from learner to staff



Wellbeing & Burnout

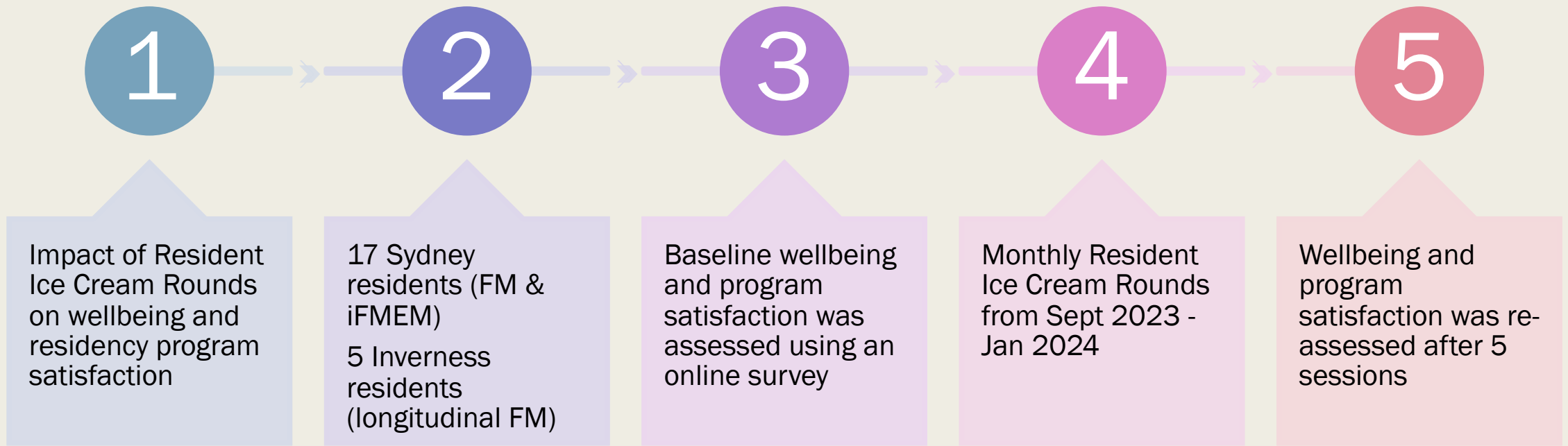
- Wellbeing and burnout are relatively new concepts, first introduced in the early 1970s by psychologist Herbert Freudenberger⁷
- Systematic analysis of wellbeing gained more prominence in the 1980s and 1990s
- Recent literature discusses strategies for improving wellbeing and preventing burnout
 - *mindfulness exercises, resiliency training, scheduled personal time, peer support, journaling, debriefing sessions, panel discussions, and more*
- One such strategy is called Ice Cream Rounds



Ice Cream Rounds

A close-up photograph of four scoops of ice cream in a white bowl. The scoops are arranged in a row, slightly overlapping. From left to right, the colors are yellow, white, pink, and green. The background is a soft, out-of-focus light color.

- Extension of peer support combined with debriefing
- First described in 2018 → improve mental health and wellbeing within undergraduate medical students and Emergency Medicine Residency programs⁸⁻¹¹
- Participant-led, non-mandatory, scheduled time for students or residents to come together to share and support one another
- Create space for debriefing difficult cases, sharing success stories and clinical pearls, as well as simply being together with other people who understand the challenges of medical school or residency



Research Question & Participants

The Survey

- Numerous tools exist to evaluate physician wellbeing
 - *Physician Wellbeing Index (PWBI), Maslach Burnout Inventory, Oldenburg Burnout Inventory, Copenhagen Burnout Inventory, among many others*
- Extensive literature evaluating physician job satisfaction, however, very limited on resident physicians
- A significant section of my literature review discusses these options in depth → another time if interested



Survey - Physician Wellbeing Index (PWBI)

Questions - During the past month:	Response	Score
1. Have you felt burned out from your work?	Yes	0
	No	1
2. Have you worried that your work is hardening you emotionally?	Yes	0
	No	1
3. Have you often been bothered by feeling down, depressed, or hopeless?	Yes	0
	No	1
4. Have you fallen asleep while stopped in traffic or driving?	Yes	0
	No	1
5. Have you felt that all the things you had to do were piling up so high that you could not overcome them?	Yes	0
	No	1
6. Have you been bothered by emotional problems (such as feeling anxious, depressed, or irritable)?	Yes	0
	No	1
7. Has your physical health interfered with your ability to do your daily work at home and/or away from home?	Yes	0
	No	1
Total Score		7

**7 item yes/no survey validated within the resident physician population¹²*

Survey – Residency Program Satisfaction

Question	Response	Score
1. Are you disappointed you matched to Dalhousie's Family Medicine Program in Cape Breton for your residency?	Yes	0
	No	1
2. Do you wish you had ranked Dalhousie Family Medicine in Cape Breton lower on your residency application?	Yes	0
	No	1
3. How well supported do you feel by Dalhousie's Family Medicine Program in Cape Breton?	Very well supported OR well supported	1
	Neutral OR unsupported OR very unsupported	0
4. Overall, how satisfied are you with your residency program - Dalhousie Family Medicine in Cape Breton?	Very satisfied OR satisfied	1
	Neutral OR dissatisfied OR very dissatisfied	0
Total Score		4

**Created based on literature describing acquiescence bias, associated with only asking positively framed questions*



Intervention – Ice Cream Rounds

- Baseline survey - August 2023
- Resident Ice Cream Rounds took place monthly from September 2023 to January 2024, a total of 5 sessions
- Took place in person and virtually over Zoom to accommodate the distributed nature of the training program
- The sessions were:
 - *Approximately 1 hour*
 - *Voluntary and unstructured*
 - *Exclusive to CB Dalhousie FM residents*
- Follow up survey – January 2024 (after last session)

Ethics



Review by Nova Scotia Health REB → exemption from formal REB review, given the project's adherence to the Tri-Council Policy Statement Chapter 238 (REB FILE#:1029483)



Nova Scotia Health QI&S Council assessed the study proposal and determined it unnecessary to be submitted through the Nova Scotia Health QI Hub

The image features five scoops of ice cream arranged in a row on a light-colored surface. From left to right, the colors are yellow, orange, pink, green, and white. The scoops are slightly overlapping and have a soft, melting texture. The word "RESULTS" is overlaid in the center in a white, sans-serif font.

RESULTS



Pre-
Intervention

- 20 / 21 CB FM Residents
- N = 10 for PGY1
- N = 10 for PGY2

Sessions

- ~11 residents per session
- 16 / 21 residents attended ≥ 1 session

Post-
Intervention

- Must attend ≥ 1 session
- N = 9 for PGY1
- N = 7 for PGY2

*Unpaired t-tests

*p-value of 0.05

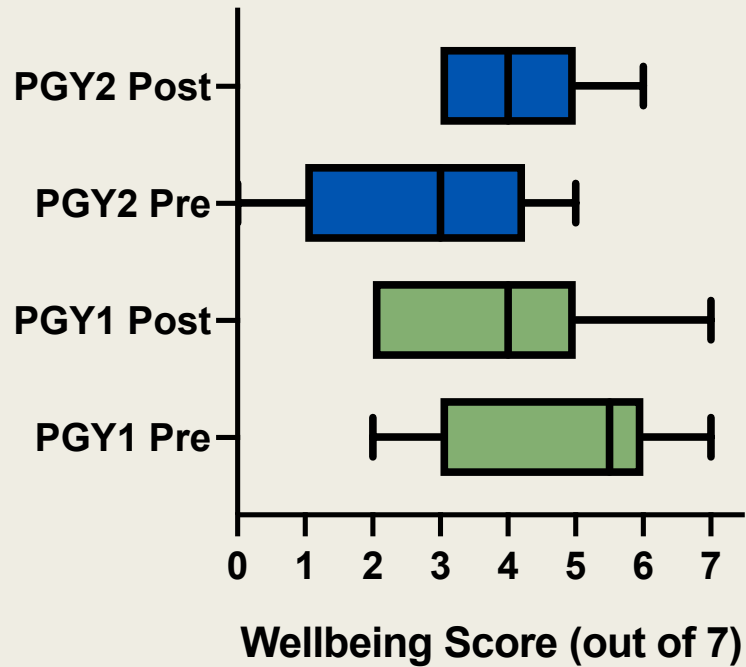
PGY1 vs PGY2 Scores

	Pre-Intervention			Post-Intervention		
	PGY1	PGY2	p-value	PGY1	PGY2	p-value
Wellbeing Score (N out of 7)	4.9	2.9	0.017*	3.9	4.3	0.601
Program Satisfaction Score (N out of 4)	3.6	2.7	0.076	3.8	3.0	0.112

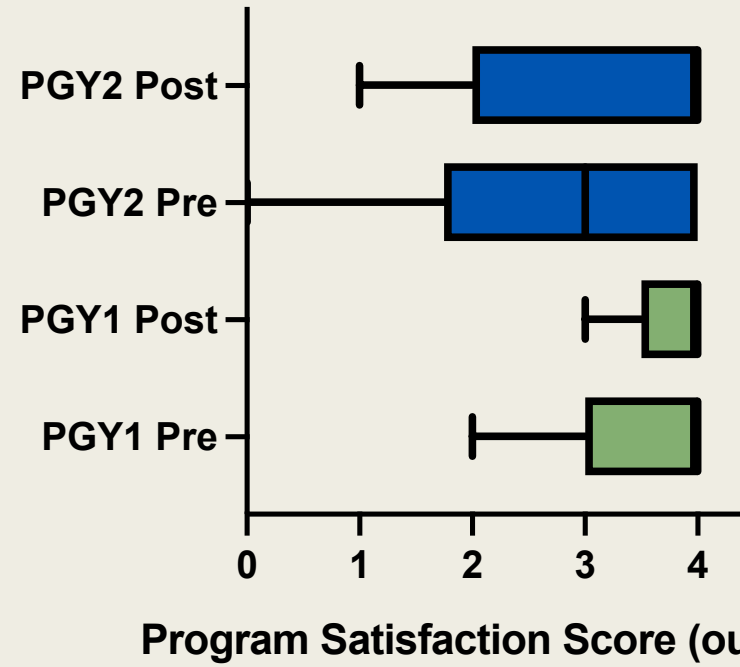
*Unpaired t-tests
*p-value of 0.05

PGY1 vs PGY2 Scores

Wellbeing Scores for First- and Second-Year Residents



Program Satisfaction Scores for First- and Second-Year Residents



*Box = median and upper/lower quartiles

*Whiskers = minimum/maximum scores

Pre- vs Post-Intervention Scores

	All Residents			PGY1			PGY2		
	Pre	Post	p-value	Pre	Post	p-value	Pre	Post	p-value
Number of residents	20	16	-	10	9	-	10	7	-
Wellbeing Score (N out of 7)	3.9	4.1	0.782	4.9	3.9	0.207	2.9	4.3	0.083
Program Satisfaction Score (N out of 4)	3.2	3.4	0.426	3.6	3.8	0.522	2.7	3.0	0.651
Wellbeing Score ≤ 3 (N of residents)	9	5	0.415	3	3	0.884	6	2	0.226

- Last row – number of residents with a wellbeing score less than or equal to 3
- This was a pre-established threshold from the literature that identifies residents at high risk for mental health concerns, including suicide
- Although not statistically significant, a reduction by nearly half, is important

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DISCUSSION

Overall Wellbeing

- A U.S. Nation wide study in 2020 examined resident wellbeing and burnout across various specialties, including FM¹³
- N = 1115 residents → average PWBI score of 4.3 / 7 for all residents and 4.2 / 7 just FM residents (N = 163)
 - *CB FM wellbeing scores are below this national average*
 - *3.9 / 7 pre- and 4.1 / 7 post-intervention*
 - *Highlights the importance of addressing wellbeing as a key area of focus for the program in the future*



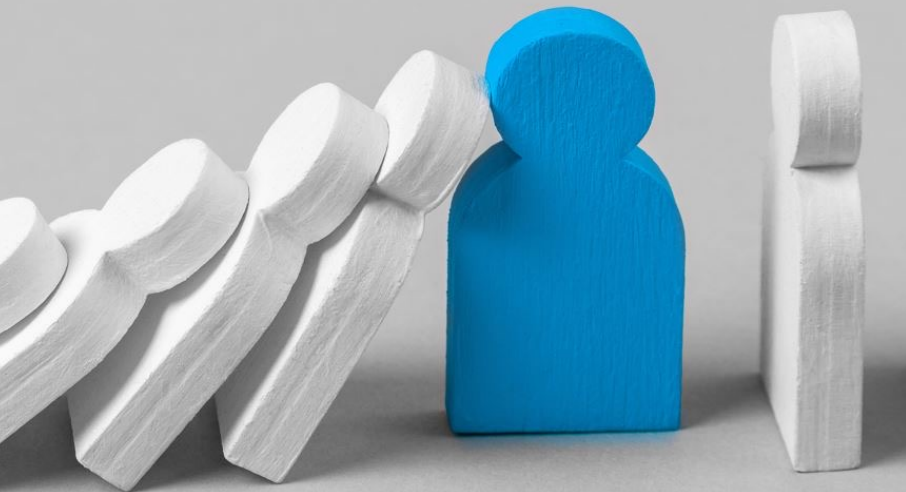
Declining Wellbeing

- Declining trend in wellbeing seen in PGY1s from pre- to post-intervention
 - *?challenges and pressures associated with residency had not yet accumulated*
- Burnout and poor wellbeing tend to increase as trainees progress through both UGME and residency¹⁴⁻¹⁶
 - *Often from accumulation of challenging and fatiguing experiences*
 - *Becomes more apparent after repetitive and prolonged exposure*



Residents at Risk

- Literature to suggest a $PWBI \leq 3$ → indicative of poorer overall mental QOL, higher incidences of medical errors, burnout, and suicidal thoughts^{12, 13}
 - *Initially proposed in 2014 following a study with 1701 residents that compared their PWBI to a mental QOL scale previously validated across various medical conditions and populations*
- Initially, only 55% of residents scored above this threshold
- This increased to 69% post-intervention (p-value 0.415)
- PWBI is a concise and easily administered tool → could be beneficial for programs to monitor wellbeing and efficacy of wellness programming



Program Satisfaction

- Consistently high both before and after the intervention, spanning across both years
- Likert-scale style questions were skewed towards assigning residents **lower overall satisfaction scores**
 - *A “neutral” response was assigned a score of zero, equivalent to “very unsupported” or “very dissatisfied”*
- Despite this scoring nuance, program satisfaction scores remained high

This emphasizes the residents' overall contentment with our program, **affirming the positive impact** of the program's existing efforts!!



Limitations

- Short duration, only 5 sessions held
- Small sample size – only 16 residents attended 1 or more sessions
- Some residents only attended 1 session, average was 3.1 sessions
- To preserve anonymity, data was not differentiated by site, which have quite different formats (longitudinal, block based, integrated emergency medicine)
 - *Residents used to validate the PWBI were in block-based programs, influence of a longitudinal program remains unclear*
- PWBI scores pertain to the preceding month, may impact results for residents in the block-based programs
- Questions used to evaluate program satisfaction were not previous validated



SUMMARY & CONCLUSIONS



Summary

Small interventional study assessing the effects of five Resident Ice Cream Rounds

Peer-support debrief sessions may have a positive impact on resident wellbeing and program satisfaction

Interesting wellbeing findings → PGY1 declined over the intervention period, whereas PGY2 improved

- Suggests there may be an underlying U - trend of resident wellbeing, regardless of intervention(s)
- Wellbeing still had an upward trend for all residents combined

Overall, as well as residency year specific, program satisfaction was high to begin with and showed improvement with the intervention

- Our residents are quite satisfied with our program!!

Conclusions

- With just over half of the residents scoring above the threshold for poor mental QOL, this study serves as a crucial milestone in recognizing that residents may be facing challenges
- There is a need for program-wide attention to wellbeing moving forward
 - *Implementation of improved wellness programming, particularly focusing on emotional and mental health support for residents*
 - *I believe the PWBI may help monitor this*
- Residents are pleased with our program and we should keep up the good work!





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THANKS FOR
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Questions?