

PRACTICE WHAT YOU PREACH

Improving Wellness in a Family Medicine
Residency

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Background

- Physical fitness and nutrition are the essential components of overall health.
- Sedentary lifestyle and unhealthy diet have been correlated with poor health outcomes (1).
- Modifications of diet and physical activity have been associated with improvements in many conditions, including obesity (2), hypertension (3), type 2 diabetes (4), and coronary artery disease (5).
- It has been demonstrated that physicians who follow a healthy diet and exercise regularly are more effective in influencing their patients to be physically active and eat well (6).

Background

- Residency training can serve as a barrier to wellness.
- Long work hours and frequent schedule changes can make it difficult to adhere to a healthy diet and a regular exercise regimen.
- Several studies have been done in the past to investigate the effect of physical fitness interventions on the health of residency trainees, but the results have been mixed (7).
- Residents at our own program had previously investigated this matter and found statistically significant improvements in blood pressure and reported physical activity expenditure

Objective

- The objective of our study was to determine whether implementing a wellness curriculum would lead to improvements in selected health measurements, reported diet and amount of physical activity, and attitudes toward healthy diet and physical fitness.
- Our goal is for this to be an ongoing study within our program to be continued by future classes.

Subjects

- The population of this study involves 21 first and second-year family medicine resident physicians employed by University of Illinois College of Medicine Family Medicine Residency. This includes 12 male and 9 female residents.
- Of that population 12 residents participated. 6 males, 6 females. 1 resident was lost to follow-up (transferred programs).

Methods

- Baseline data, including measurements of physical wellness (height, weight, BP, BG, cholesterol) obtained as part of Biometric screening for Methodist employees
- Surveys collected regarding attitudes toward physical fitness and nutrition
- Program-wide intervention to improve physical and mental wellness
- Baseline data measures were repeated post-intervention
- Physical activity recall diary and dietary recall diary forms were initially planned but not done in this study

Interventions

- Participation in sports teams
- Eliminating soft drinks from cafeteria
- Focus on healthier lunch options
- Wellness curriculum
- Cook Well, Eat Well, Live Well classes
- Noon conferences and journal club articles focusing on wellness topics
- Fitness/ nutrition goal setting

Sample Survey Questions

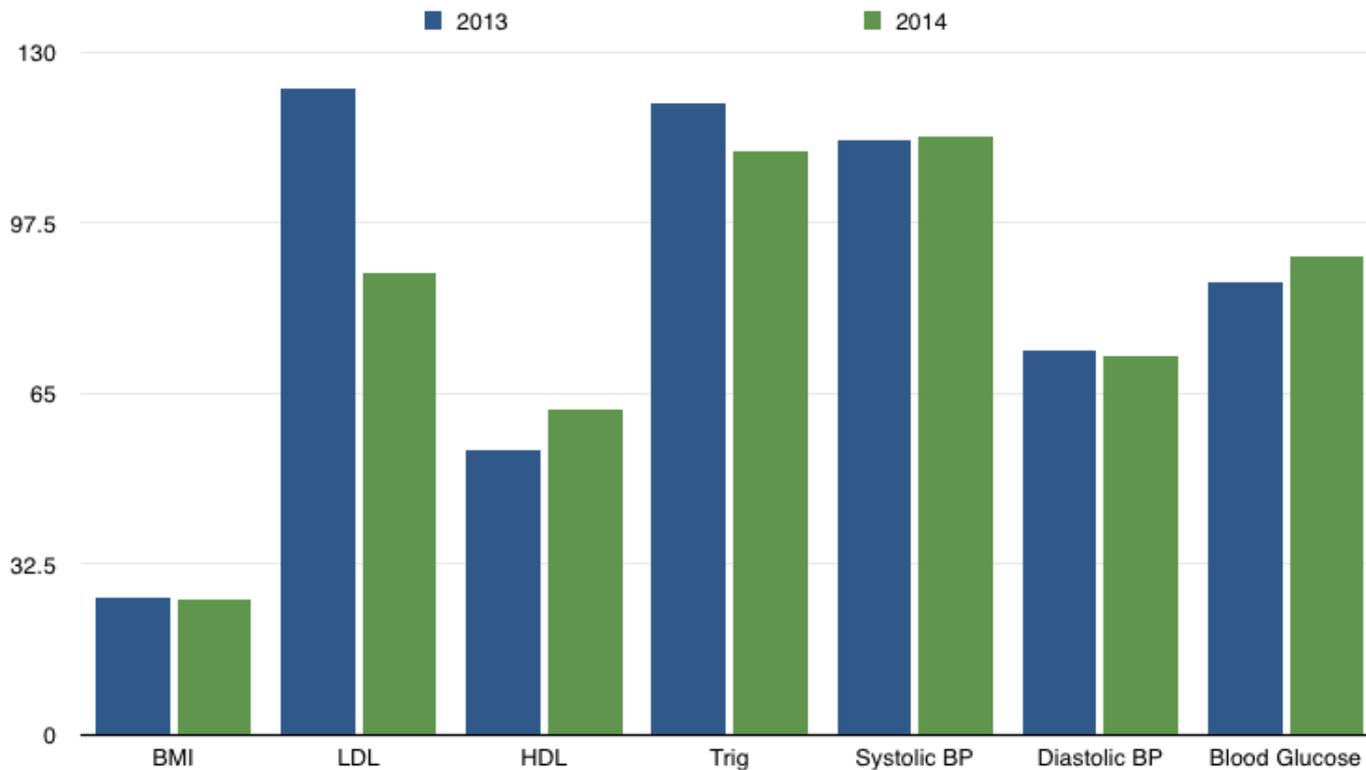
- 3. I feel satisfied with the amount of physical activity that I get.
 - A. Strongly agree
 - B. Agree
 - C. Neutral
 - D. Disagree
 - E. Strongly Disagree

- 8. I feel that there are barriers keeping me from following a healthy diet.
 - A. Strongly agree
 - B. Agree
 - C. Neutral
 - D. Disagree
 - E. Strongly Disagree

- 10. I feel comfortable counseling my patients regarding proper nutrition.
 - A. Strongly agree
 - B. Agree
 - C. Neutral
 - D. Disagree
 - E. Strongly Disagree

Biometric Screening

	BMI	LDL	HDL	Trig	Systolic BP	Diastolic BP	Blood Glucose
2013	26	123	54	120	113	73	86
2014	25.6	88	62	111	114	72	91



Survey Results

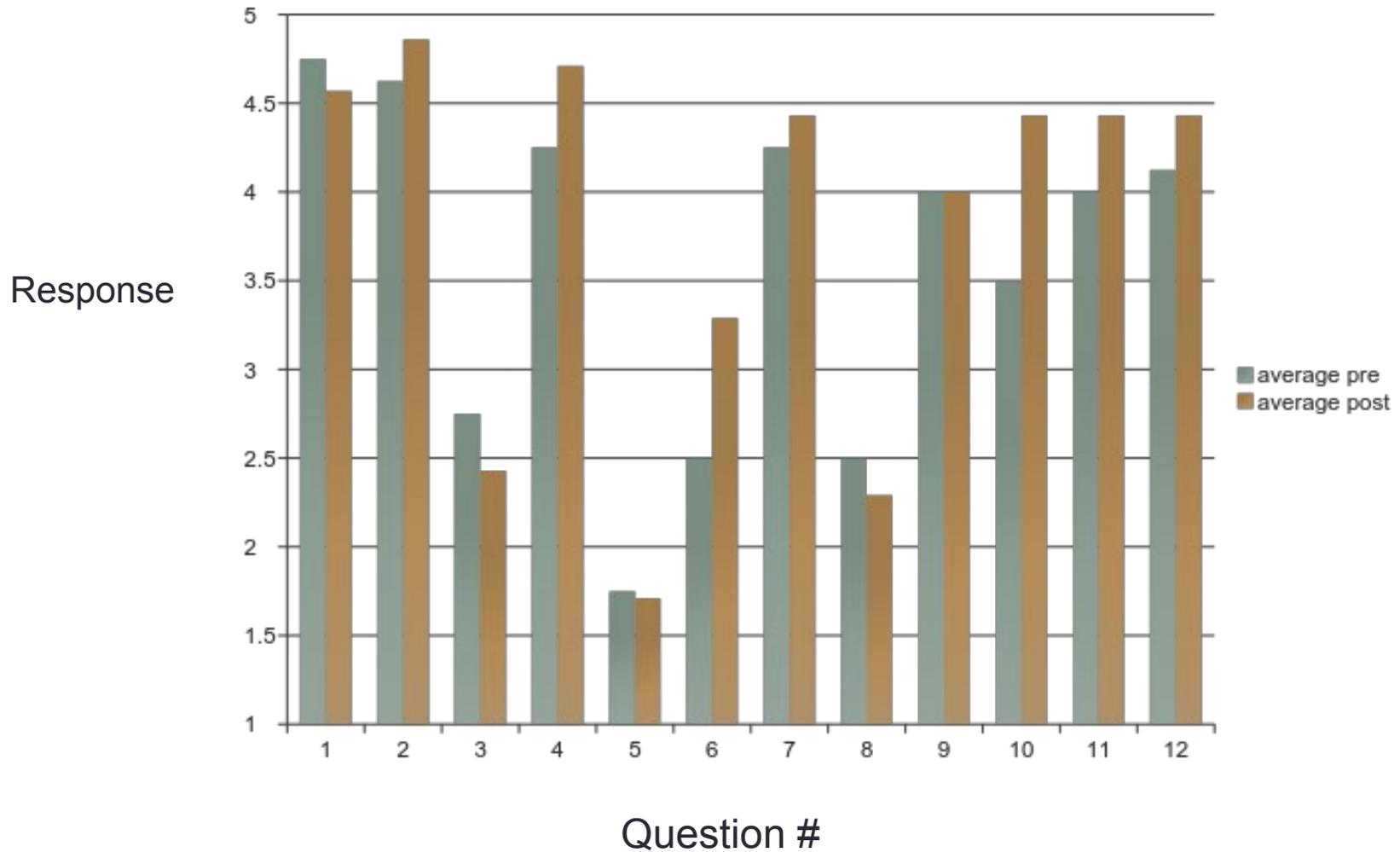
Question #	1	2	3	4	5	6	7	8	9	10	11	12
Pre	4.75	4.625	2.75	4.25	1.75	2.5	4.25	2.5	4	3.5	4	4.125
Post	4.57	4.86	2.43	4.71	1.71	3.9	4.43	2.29	4	4.43	4.43	4.43
p value (0.05)	0.689	0.356	0.818	0.172	0.829	0.140	0.356	0.522	1.000	0.078	0.078	0.448

- 8 of 12 participants completed surveys
- No statistically significant difference was seen pre to post intervention
- Three questions approached statistical significance (6,10,11)
- Four questions averaged an unfavorable response pre-intervention (3,5,6,8); of these, one question averaged a favorable response post-intervention (6)

Survey Results- Unfavorable Responses

- #3: I feel satisfied with the amount of physical activity I get
- #5: I feel that there are barriers keeping me from my desired amount of physical activity
- #6: I feel that I regularly follow a healthy diet
- #8: I feel that there are barriers keeping me from following a healthy diet.

Survey Results



Discussion

- Biometric data shows that the overall measurable health of residents is good.
- Surveys show that residents do not feel satisfied with their diet or amount of physical activity, and that they feel there are barriers keeping them from meeting their fitness and nutrition goals.
- A program-wide shift in focus on healthier lifestyle for residents and staff is ongoing. This study and future similar studies can give information on the degree of efficacy of these changes.
- Current plan is for this study to be continued into the future. The magnitude of effect and benefit should be more apparent as this wellness curriculum becomes more refined and further entrenched in our program.

Discussion- Limitations

- The timing of interventions and collection of data was not optimal
- The sample size is small and heterogeneous; with overall healthy baseline biometric data
- No control group was used
- The wording of some survey questions made the response difficult to interpret as positive or negative

Ideas for Future Studies

- Expand survey questions to determine specific barriers to physical activity and healthy diet
- Include dietary and physical activity recall diaries in data collection
- Consider including faculty and nursing staff in future studies

Conclusion

- Healthier residents should make for happier residents, decreasing burnout and missed time.
- We should focus on attempting to remove barriers preventing attainment of nutrition and fitness goals, but some of these are inherent to residency training.
- Better resident understanding of wellness topics should in turn lead to better patient education by those residents, benefiting our patient population.
- Residents who “practice” better fitness and nutrition habits should feel more confident and comfortable in attempts to “preach” these important topics to their patients.

References

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2. Anderson, RE, et al. Effects of lifestyle activity vs structured aerobic exercise in obese women. *JAMA* 1999; 281: 335-40.
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6. Hash RB et al. Does Physician Weight Affect Perception of Health Advice? *Preventive Medicine* 36.1 (2003): 41-4.
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