



Use of Fitness Trackers to Improve Physician Wellness

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Introduction

Does giving Fitbits to Residents and Faculty
Increase their Overall Wellness?



Results of Existing Studies on the Effect of Fitness Trackers

2 Positive Studies:

- Women using Fitbits increased exercise by 1 hour per week¹
 - (Equivalent of 789 steps per week)¹
- Autistic kids in grades 4-6 increased physical activity while wearing fitness trackers²

JAMA IDEA Trial - 9/2016

“Among adults with BMI between 25 and less than 40, the addition of wearable technology to standard behavioral intervention resulted in less weight loss over 24 months”³

- Standard lost 5.9kg (13 lbs)
- With tracker lost 3.5kg (7.7 lbs)

Cited Reasons why Activity Trackers Fail to Improve Activity Levels

- Unreliability of the device⁴
- Lack of engagement by some participants⁴
- Attrition
 - Study of elderly who initially felt positive about tracking devices showed 63% stopped using the devices after 2 weeks⁵

Our Study - Materials and Methods

- All residents and faculty members given Fitbits for 1 year
- “Abbreviated Maslach Burnout Inventory” used as an inverse measure of wellness levels
- Burnout Inventory completed at baseline and every 6 months after receiving Fitbits to assess correlation between Fitbit ownership and perceived wellbeing

Maslach Burnout Inventory

- Created by Christina Maslach and others
- Measures 3 general scales:
 - Emotional Exhaustion
 - Depersonalization
 - Personal Accomplishment

Our Findings - Discussion

- 15% of Residents and Faculty declined to wear their Fitbits
- 41% Attrition rate by 3 months
 - 68% by 5 months
- Just guessing— need actual data: No correlation found between measured wellness and Fitbit ownership

Discussion

Reasons cited for Resident/Faculty Fitbit Noncompliance:

- “Big Brother” sensation
- Feeling of loss of autonomy
- Technical Problems (syncing, charging)
- “Forgetting” to put on or charge Fitbit

Discussion

Reasons cited for Resident/Faculty Fitbit Noncompliance:

- Feeling the device promoted unbalanced exercise (Didn't count rowing, surfing, etc.)
- Physical dislike of the device
- Emotional burden of monitoring

Discussion

Reasons cited for Resident/Faculty Fitbit Compliance:

- “I was going to wear it anyways”



Discussion

How To Maximize Benefit from Activity Trackers- Existing Studies:

- Gamification
 - Prizes⁶
 - Competition⁷
- Text Reminders⁸



Discussion

How To Maximize Benefit from Activity Trackers- Existing Studies:

- Customize Use^{10, 11}
 - By Personality type
 - By Phase of use (Discovery vs. Maintenance)
 - Social Networks

Future Directions

- Employing tactics of gamification and competition:
 - Residents versus faculty
 - Men versus women
 - Residency Level



Conclusion

Fitness Trackers are potentially a source of information and motivation. We just need to figure out how to harness their power!

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