



# 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 week<sup>1</sup>
  - (Equivalent of 789 steps per week)<sup>1</sup>
- Autistic kids in grades 4-6 increased physical activity while wearing fitness trackers<sup>2</sup>

# 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”<sup>3</sup>

- 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 device<sup>4</sup>
- Lack of engagement by some participants<sup>4</sup>
- Attrition
  - Study of elderly who initially felt positive about tracking devices showed 63% stopped using the devices after 2 weeks<sup>5</sup>

# 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
  - Prizes<sup>6</sup>
  - Competition<sup>7</sup>
- Text Reminders<sup>8</sup>



# Discussion

## How To Maximize Benefit from Activity Trackers- Existing Studies:

- Customize Use<sup>10, 11</sup>
  - 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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