



The Effects, Perceptions, and Attitudes of Previously Sedentary Individuals Starting an Exercise Program



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Introduction

In general, Americans of all ages are not eating a healthy diet or exercising. These practices are associated with higher risk of developing diseases such as obesity, cardiovascular disease, and diabetes. Many more people are becoming aware of their need to live healthier lives. However, many face barriers that prevent them from eating healthfully and exercising. Additionally, limited research has been completed on the impact of nutrition education as an intervention impacting dietary intake

Purpose

To examine whether starting an exercise program with or without nutrition education can influence dietary choices in previously sedentary individuals, and to determine their perceptions and attitudes.

Methods

- 6 participants between the ages of 22-29 years participated in a 7-week study (Participant Demographics Table 1)
- Participants were recruited through flyers, email, social media, and word of mouth
- Participants were randomly assigned to either group A (received nutrition education) or group B (received no nutrition education)
 - Group A: 4-6 visits, Group B: 3-5 visits
 - Visits consisted of Demographics and Exercise Activity Survey, InBody Analysis, Food Frequency Questionnaire, and Focus Groups
 - Focus group interviews were conducted at the start and completion of the study
- Inclusion Criteria
 - Men and Women 20-50 years of age
 - Previously sedentary for ≥6 months
 - Have been exercising between one week and three months
 - Able to perform moderate intensity exercise ≥2 days per week in ≥30-minute sessions
- Exercise Program: ≥150 mins of moderate-intensity exercise for 6 weeks
- Quantitative data: Linear mix model and independent t-test
- Qualitative data: Themes developed using Dedoose

Table 1. Demographic Characteristics of Participants by Group (n=6)

	Answers	Group A	Group B	Total
Gender	Male	2	0	2
	Female	1	3	4
Ethnicity	White	2	0	2
	Asian	1	2	3
	Unknown	0	1	1
Age	22-29			6
	Single	2	3	5
Marital Status	Married	1	1	2
	≤Highschool	1	0	1
Education	Bachelor's Degree	1	2	3
	≥Graduate Degree	1	1	2
	Student	3	1	4
Occupation	LLU employee: PPDPT-66	0	1	1
	Other: Payroll Representative	0	1	1

Table 2. Baseline Exercise Characteristics by Group (n=6)

Exercise Routine	Answers	Group A	Group B	Total
Length	<1 month	0	1	1
	1 month	2	2	4
	3 months	1	0	1
Days/week	≤2 days	1	2	3
	4 days	2	0	2
	≥5 days	0	1	1
Duration	15-30 mins	0	1	1
	30-45 mins	3	1	4
	1 hour	0	2	2
Type	Aerobic	0	0	0
	Strength	1	0	1
	Combination of both	2	3	5
Intensity	Low	0	1	1
	Moderate	2	2	4
	Vigorous	0	0	0
Combination of moderate to vigorous	1	0	1	

Table 3. Study Protocol by Group Over Time (n=6)

	Week 1	Week 2	Week 4	Week 6	Week 7	
	Visit 1*	Visit 2	Visit 3*	Visit 4*	Visit 5+	Visit 6
Group A	X		X	X		
Group B	X			X	X	
Focus Group A (3 recruited)		X				X
Focus Group B (1 recruited)		X				X
	IA: IC, Dem, Activity, IB, & FFQ	FG Questions	Education	MA: IB FFQ	FA: IB, FFQ	FG Questions

*Beginning of the week; +End of the week
IC= Informed Consent, Dem= Demographics, IB= InBody, FFQ= Food Frequency Questionnaire, FG= Focus Group
IA= Initial Assessment, MA= Mid Assessment, FA= Final Assessment

Quantitative Results



Figure 1 (A-D) InBody Measurement Changes Over Time by Group

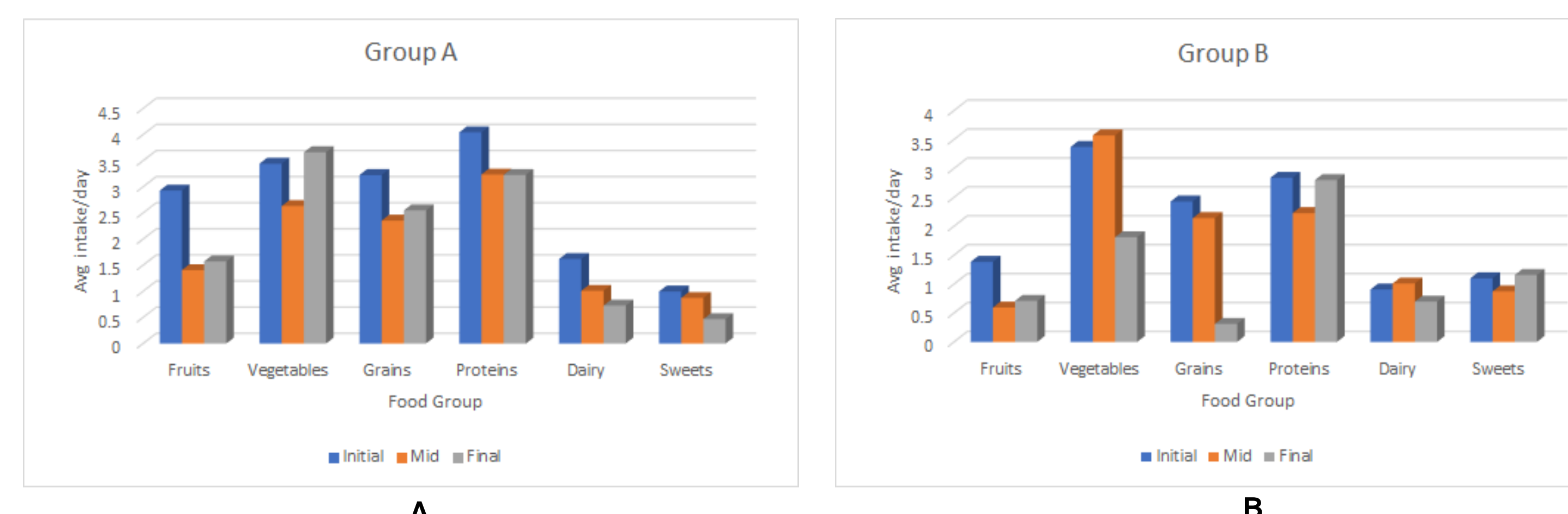


Figure 2 (A-B) Food Frequency Changes Over Time by Group

Qualitative Results

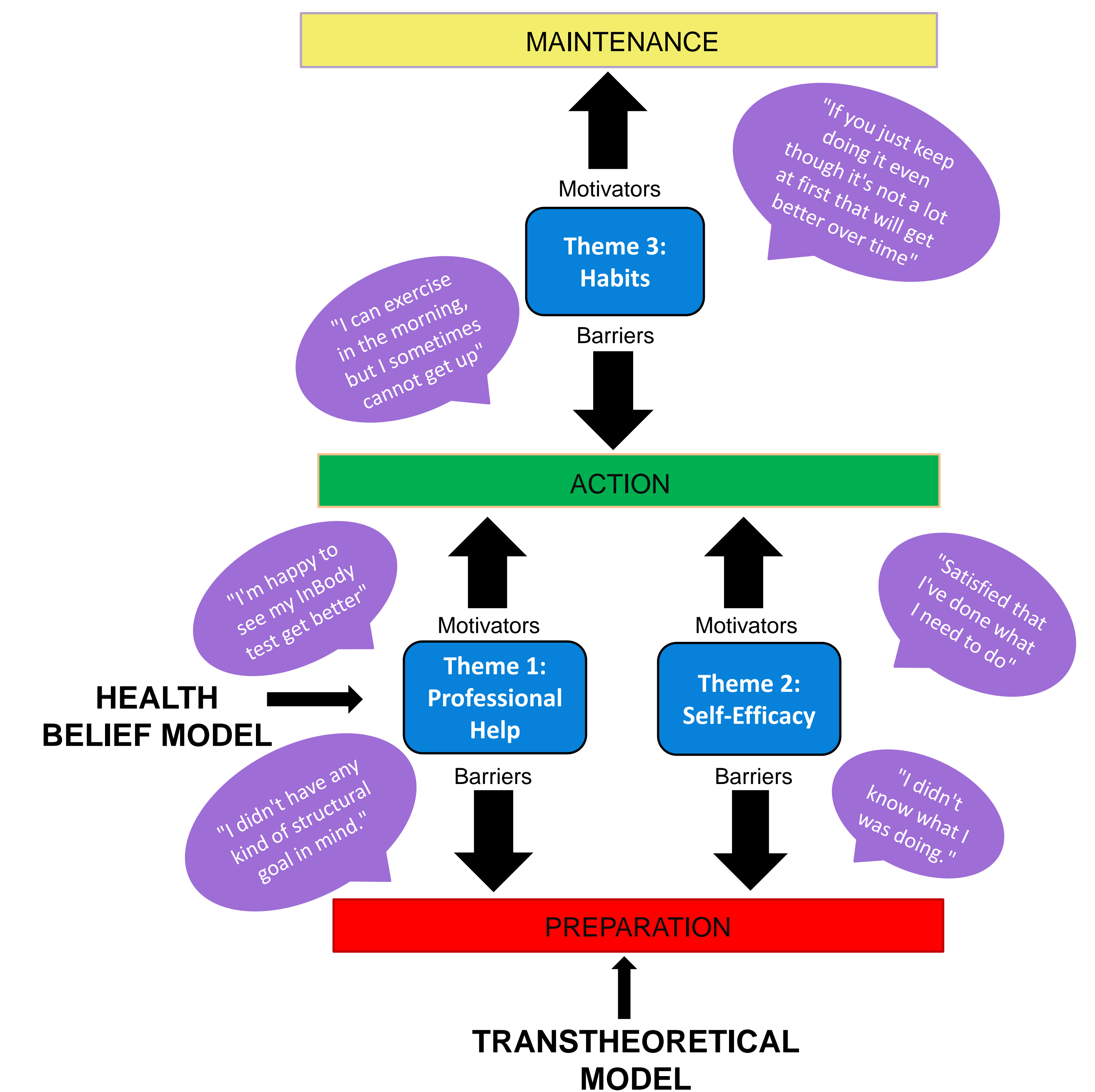


Figure 3. Ambivalence through the process of change

Conclusion

- Ambivalence and barriers were encountered even though our participants were already in the action stage of exercising. Work and motivation are required to remain in action.
 - Individuals starting an exercise program may not automatically think about changing their dietary habits, regardless of nutrition education.
 - Nutrition counseling is a tool RDNs should use to guide clients in making and maintaining behavioral changes.
 - Future studies should cover the effects of exercise on diet choices over a longer period of time or with those exercising for the first time.
- References available upon request. Contact: Arlene Moreno, armoreno@llu.edu; Megan Rasmussen, mkrasmussen@llu.edu