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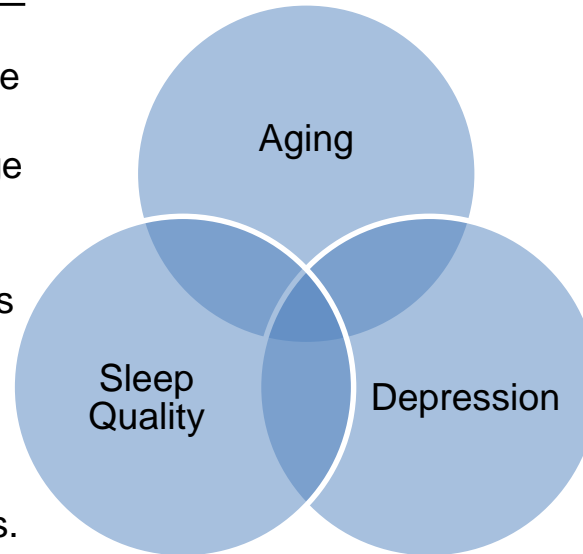
Predictors of Suicidal Ideation among Older Adults: Depressive Symptoms, Sleep Duration, and Daytime Sleepiness

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Introduction

SLEEP DECLINES WITH AGE

- Difficulty falling asleep
- Greater percentage of time spent in Stage 2 (light sleep) and less percentage of time spent in deep, restorative sleep
- Prone to early awakenings and daytime sleepiness
- Sleep may be worse with immune dysfunction, mental health disorders, and/or physical disabilities.



POOR SLEEP CAN NEGATIVELY IMPACT MOOD

- Difficulty falling asleep and/or staying asleep are worse with depressive symptoms.
- Daytime sleepiness interferes with daily activities and has been associated with depressive symptoms.

AGE-RELATED AND EVERYDAY STRESSORS CAN NEGATIVELY INFLUENCE EMOTIONAL WELL-BEING

- Loss of autonomy over one's life
- Physical disabilities and chronic illness
- Loneliness
- Limited financial resources
- Isolation and poor life satisfaction can lead to thoughts of suicide



Study Aims

Purpose: To examine the relationship between depressive symptoms, sleep duration, daytime sleepiness, and suicidal ideation among adults age 50 and older

Data Source: 2015-2016 National Health and Nutrition Examination Survey (NHANES)

AIM 1) To examine the relationship between sleep quality and suicide ideation, controlling for depression and demographics

Hypothesis: Adjusting for depression and demographics, poor sleep quality will predict suicidal ideation.

AIM 2) To determine if the relationship between sleep quality and suicidal ideation vary by depressive symptomatology among older adults. *Hypothesis:* Compared to older adults with mild depressive symptoms, those with major depressive symptoms will have poorer sleep quality and suicidal ideation.



Methods and Procedures

Sample: Adults age 50 and older

Depression
 Screener

- Patient Health Questionnaire determines the frequency of depressive symptoms over the past 2 weeks.

Sleep
 Questionnaire

- Variables: sleep hours (“not enough” = < 5 hours/day, “enough” = 5-8 hours/day, and “more than enough” = 8 hours or more/day), daytime sleepiness (“never”, “occasionally” = 1-15 times/month, and “almost always” = 16-30 times/month), sleep troubles, and snoring (frequency)

Suicidal
 Ideation

- Wishes to die were identified with the following question: “Over the last 2 weeks, how often have you been bothered by the thoughts that you would be better off dead or of hurting yourself in some way?”



Descriptive Statistics for Sample

Characteristic		Weighted percentage
Gender	Female	53.1
	Male	46.9
Partner	With a partner	64.7
	Without a partner	35.3
Ethnicity	Black	9.7
	Hispanic & Others	18.4
	Non-Hispanic White	71.9
Education	College or above	63.1
	Highschool or less	36.9
Major depression	Yes	3.4
	No	96.6
Trouble sleeping	No	63.6
	Yes	36.3
Daytime sleepiness	Almost always	7.3
	Never	14.4
	Occasionally	78.3
Sleep hour	Enough	45.9
	More than enough	51.8
	Not enough	2.3
Snoring	Frequently	28.2
	Never	23.0
	Occasionally	48.8
Suicide thought	No	96.9
	Yes	3.1
Family income		8.06 ^a

Average family income, 8.06, means average family income falls in the \$45-55k bracket



Results

Out of five demographic variables, gender and partner were significantly associated with the presence of suicide thoughts. The odd ratio of 2.33 indicates that the predicted odds of suicide ideation for males is 2.3 times the odds for females, whereas living with a partner would decrease the odds of suicide ideation by 52%.

- **Aim 1:** Controlling for depression, daytime sleepiness was significantly linked to suicidal ideation. Specifically, compared to adults who never had daytime sleepiness, those who almost always felt overly sleepy were at a higher risk for suicide ideation. Sleeping more than enough (>8 hours/day) significantly increased the likelihood of wishes for suicide.
- **Aim 2:** The relationship between the sleep variables and suicidal ideation do not vary with major depression diagnosis.

		Likelihood of suicide thoughts			
		Estimate	p-value	OR	95% CI
Gender	Male vs. Female	0.846	0.01	2.33	1.22 - 4.47
Partner	With vs. Without	-0.664	0.02	0.52	0.30 - 0.90
Major depression	Yes vs. No	3.551	<.000	34.85	14.08 - 86.26
Daytime sleepiness	Always vs. Never	0.852	0.03	2.34	1.11 - 4.94
	Occasionally vs. Never	0.833	0.06	2.30	0.95- 5.55
Sleep hour	More than enough vs. Enough	0.932	0.04	2.54	1.05 - 6.17



Discussion

- Suicidal ideation was more likely to occur among older males compared to females.
- Having a partner significantly reduced suicidal ideation.
- The relationship between sleep quality and suicidal ideation did not differ with depression.
- Excessive sleeping, rather than sleep deprivation, may be a better predictor of suicidal ideation



Limitations

- Only a few sleep variables in this dataset (other sleep variables to consider: nocturnal awakenings and sleep efficiency)
- Absence of objective sleep measures (actigraphy/polysomnography)
- Only one question to assess suicidal ideation
(only 3 % had suicidal ideation, thus variability in the data limits generalizability)



Implications for Research

Identify high-risk subgroups among older adults.

Consider other predictors of suicidal ideation that also influence sleep quality.

Examine the role of genetics and phenotypes of suicidal ideation.



Implications for Practice

- Consider integration of sleep screenings with specialized care
- Gender and age specific approaches to addressing poor sleep quality needed



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Promoting Physical Activity Among Church Attending African Americans with Chronic Health Conditions

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University of Alabama Department of Kinesiology



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~~DISCLOSURE~~

-
- I have NO financial disclosure or conflicts of interest with the presented information in this presentation.

Purpose/Aim

- The purpose of this study was to examine if the use of physical activity trackers would increase physical activity (specifically walking) by parishioners.
- Could peer-led walking coaches be trained to serve as community health workers



Methods

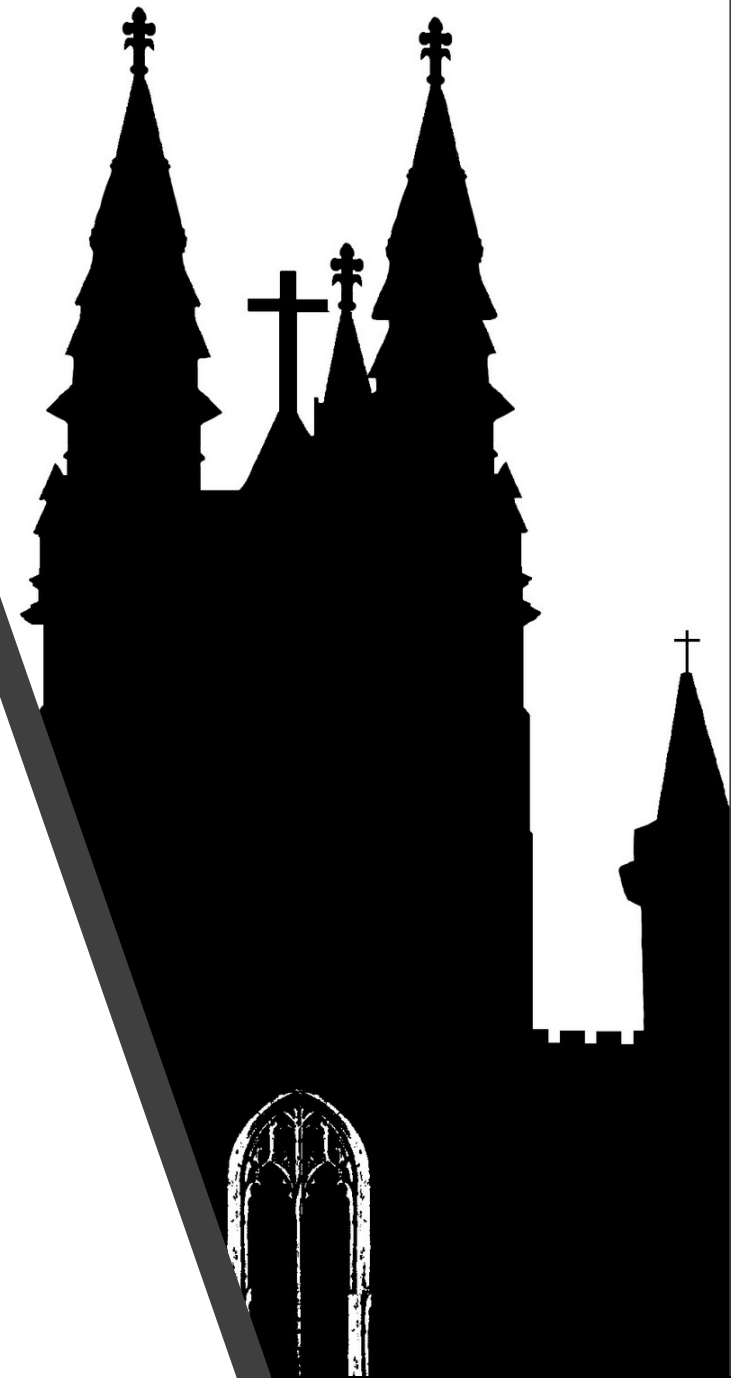
- Quasi-experimental feasibility study recruited participants from two homogenous congregations, $n=30$
- Participants from both churches received education sessions on walking guidelines, injury prevention and how to use the activity tracker
- Walking groups were to meet a minimum of twice per week for 30 minutes each time. Participants that completed all components of the study received a \$25 VISA card and kept their activity tracker

Physical activity and chronic disease

- 7 out of 10 deaths in the United States occur as a result of a chronic disease
- Chronic diseases affect African Americans at a disproportionately high rate of occurrence
- Physical activity is linked to a reduction in chronic disease factors

Faith-based organizations

- Churches have significant influence in African American communities
- Peer coaches



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Results

- The majority of participants ranged in age from 50-69 years of age. 75% were female and 25% were male.
- Baseline physical activity was assessed continuously for 7 days
- 39% of participants accumulated fewer than 10,000 steps per day
- No differences were observed when comparing the change in physical activity between churches ($p=.540$)

Conclusion

- The findings from this study add to the evidence surrounding the need to further promote physical activity in faith-based organizations as a strategy to help reduce or manage chronic diseases such as hypertension and diabetes
- This study used peer walking coaches with the intention of later training these individuals to assist fellow parishioners with chronic disease

Anecdotal Evidence



Hello Betty, hope all is well. Tell me how I can get another [REDACTED] bracelet or where do I get battery for this one. I like using it when I'm trying to do daily walking/exercising. Thanks



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**PHYSICAL ACTIVITY PREDICTS DEPRESSION IN
OLDER ADULTS: THE IMPACT OF
RACE/ETHNICITY AND LEVEL OF ACTIVITY**

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BACKGROUND

- ❑ Almost 50 million people in the United States aged 65 and older.
- ❑ Depression is also the most undertreated mental health disorder in older adults
- ❑ About 8% to 30% of community dwelling older adults have clinically significant depressive symptoms
- ❑ Depression associated with increased mortality, functional limitations, anxiety and poor self-image

RISK FACTORS FOR DEPRESSION

- Gender
- Social relationships
- Genetic factors and family history
- Personal history
- Multimorbidity

WHAT WE KNOW

- ❑ Depression is treatable
- ❑ Cost of other therapies
- ❑ Unintended consequences of pharmacotherapy
- ❑ Remission is difficult for most adults
- ❑ Physical activity has positive psychosocial outcomes for older adults.

GAPS IN THE SCIENTIFIC LITERATURE

- ❑ Relationship of level of physical activity and level of depression

- ❑ Racial/ethnic disparities in level of physical activity and relationship to depression

STUDY AIM

Examine whether:

- a. Various levels of physical activity among older adults predict levels of depression after controlling for age, gender, and level of education, and
- b. Racial differences exist in the levels and types of physical activities engaged in by adults 50 years and older.

METHODS

- ❑ Secondary data analysis of 2015-2016 NHANES

- ❑ Sample and sample size estimation

- ❑ Instruments
 - a. DPQ questionnaire
 - b. PAQ questionnaire

- ❑ Data analysis

RESULTS

- ❑ Age: Mean = 64.9 (50-80)
- ❑ Gender: 66% Female
- ❑ Income: 75% ≤ \$75,000
- ❑ Education
- ❑ Participant racial breakdown

Race / Ethnicity	%
Mexican American	17
Other Hispanic	14
Non-Hispanic White	38
Non-Hispanic Black	20
Non-Hispanic Asian	8
Other Race (including multiracial)	3

RESULTS CONTINUED

Correlations among variables of interest

	1	2	3	4	5	6	7	8
1. Age	1							
2. Race	-.01	1						
3. Income	-.14**	.12**	1					
4. DPQ	-.01	-.07**	-.20**	1				
5. Vigorous Work	-.14**	-.06**	-.01	-.01	1			
6. Moderate Work	-.12**	-.01	.02	.01	.39**	1		
7. Vigorous Recreation	-.07**	.01	.09**	-.09**	.09**	.05**	1	
8. Moderate Recreation	-.01	.003	.08**	-.09**	.12**	.12**	.29**	1

RESULTS CONTINUED

Regression Analyses

Log odds of 0/2				
Predictor	Estimate	<i>SE</i>	X^2	<i>P</i>
Intercept	2.06	.09	488.04	< .0001**
Vigorous Work	.01	.01	.14	.71
Moderate Work	-.01	.01	1.69	.19
Vigorous Recreation	.45	.16	8.14	.004*
Moderate Recreation	.11	.05	6.31	.01*

Log odds of 1/2				
Predictor	Estimate	<i>SE</i>	X^2	<i>P</i>
Intercept	1.24	.10	156.58	< .0001**
Vigorous Work	.01	.01	.21	.65
Moderate Work	-.01	.10	.98	.32
Vigorous Recreation	.38	.16	5.47	.02*
Moderate Recreation	.06	.05	1.62	.20

Note: Dependent variable = level of depression. *SE* = Standard Error. * $p < .05$, ** $p < .01$.

DISCUSSION AND IMPLICATIONS

- ❑ Encouraging physical activity in older adults
- ❑ Racial/ethnic differences in severity of depressive symptoms
- ❑ Screening for depression among Hispanics
- ❑ Education related to types of physical activity and their influence on depression
- ❑ Relationship of physical activity and education level
- ❑ Alternative styles of physical activity

Let's talk about it...

Your thoughts?

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