IMPLEMENTATION OF A MINDFULNESS-BASED INTERVENTION TO DECREASE LONELINESS AND DEPRESSION IN THE COMMUNITY SETTING.

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SCHOOL *of* NURSING

Background and Significance

- Loneliness and social isolation have been identified as a public health risk, that affects individuals of all ages (Veronese et al., 2021)
- Loneliness is defined as a subjective perception that one's social relationships are lacking or a discrepancy between the desired and the attained social relationships.
- Social isolation is an objective lack of notable interaction with people over a specified time period. (Pearson, 2019)

CLINICAL SIGNIFICANCE OF LONELINESS

- The health risks associated with both social isolation and loneliness are comparable to several common health hazards
- There is a 50% increase in the risk for dementia amongst those experiencing social isolation and loneliness (NASEM, 2020)
- All-cause mortality rates are increased by 29% for those experiencing loneliness and 26% for those experiencing social isolation (Galvez-Hernandez et al., 2022)

ECONOMIC SIGNIFICANCE OF LONELINESS

- Social isolation and loneliness are associated with increased healthcare costs through the increased use of primary care, emergency room visits and longer hospitalizations (Pearson, 2019)

Table 3. Adjusted association between healthcare utilization and social isolation and loneliness ($N = 6{,}994$).

	ER visits			IP admissions		
	Odds ratio	95% confidence limits		Odds ratio	95% confidence limits	
Lonely only	1.151	0.963	1.374	0.979	0.751	1.262
Socially isolated Only	0.828	0.719	0.952	1.083	0.889	1.313
Both	1.096	0.911	1.314	1.360	1.069	1.720
Neither	–	–	–	–	–	–

Multivariate logistic regression models performed adjusted for socio-demographic characteristics and health status, Neither designated as reference group.
ER = Emergency Room.
IP = Inpatient.

Note. From Barnes, T. L., MacLeod, S., Tkatch, R., Ahuja, M., Albright, L., Schaeffer, J. A., & Yeh, C. S. (2022). Cumulative effect of loneliness and social isolation on health outcomes among older adults. *Aging & Mental Health*, *26*(7), 1327–1334. https://doi.org/10.1080/13607863.2021.1940096\

EBP FRAMEWORK: IOWA MODEL

Systematic, 7-step guide for implementation of EBP

1. Identify Triggering Issues/Opportunities
2. State the Question or Purpose

**Is this topic a priority?*

3. Form a Team
4. Assemble, Appraise and Synthesize Body of Evidence

**Is there sufficient evidence?*

5. Design and Pilot the Practice Change

**Is change appropriate for adoption in practice?*

6. Integrate and Sustain the Practice Change
7. Disseminate Results

Step 1: Identify Triggering Issues/Opportunities

Issues

- Increase in immigrants seeking care
- High rates of multiple comorbid conditions
- Increased demand for mental health care
- Current loneliness rates of 23% (English) and 3% (Spanish)

Opportunities

- Low-cost intervention
- Include intervention in primary care
- Improve general and mental health
- Improved screening

STEP 2: CLINICAL QUESTION

- Do primary care-based mindfulness interventions reduce loneliness, social isolation or depression within a community dwelling population?

STEP 3: FORM A TEAM

Setting:

- A primary care office serving individuals who are uninsured or are underinsured in the Mid-Atlantic states.

Interdisciplinary Team Collaboration

- 3 Family Nurse Practitioners, 1 Psychiatric Mental Health Practitioner
- 4 administrative personnel, 2 administrative volunteers, 3 medical assistance
- Faculty Advisor, Practice Mentor

Step 4: Assemble, Appraise, & Synthesize the Body of Evidence

Comprehensive database search

- PubMed, Web of Science, Pysch Info, Cochran, and Cumulative Index to Nursing and Allied Health Literature (CINAHL)
- Similar search terms and limiters for each database review were used, “meditation OR mindfulness”, “loneliness OR “social isolation”

Filters applied

- English language

Literature was evaluated using the JHNEBP model

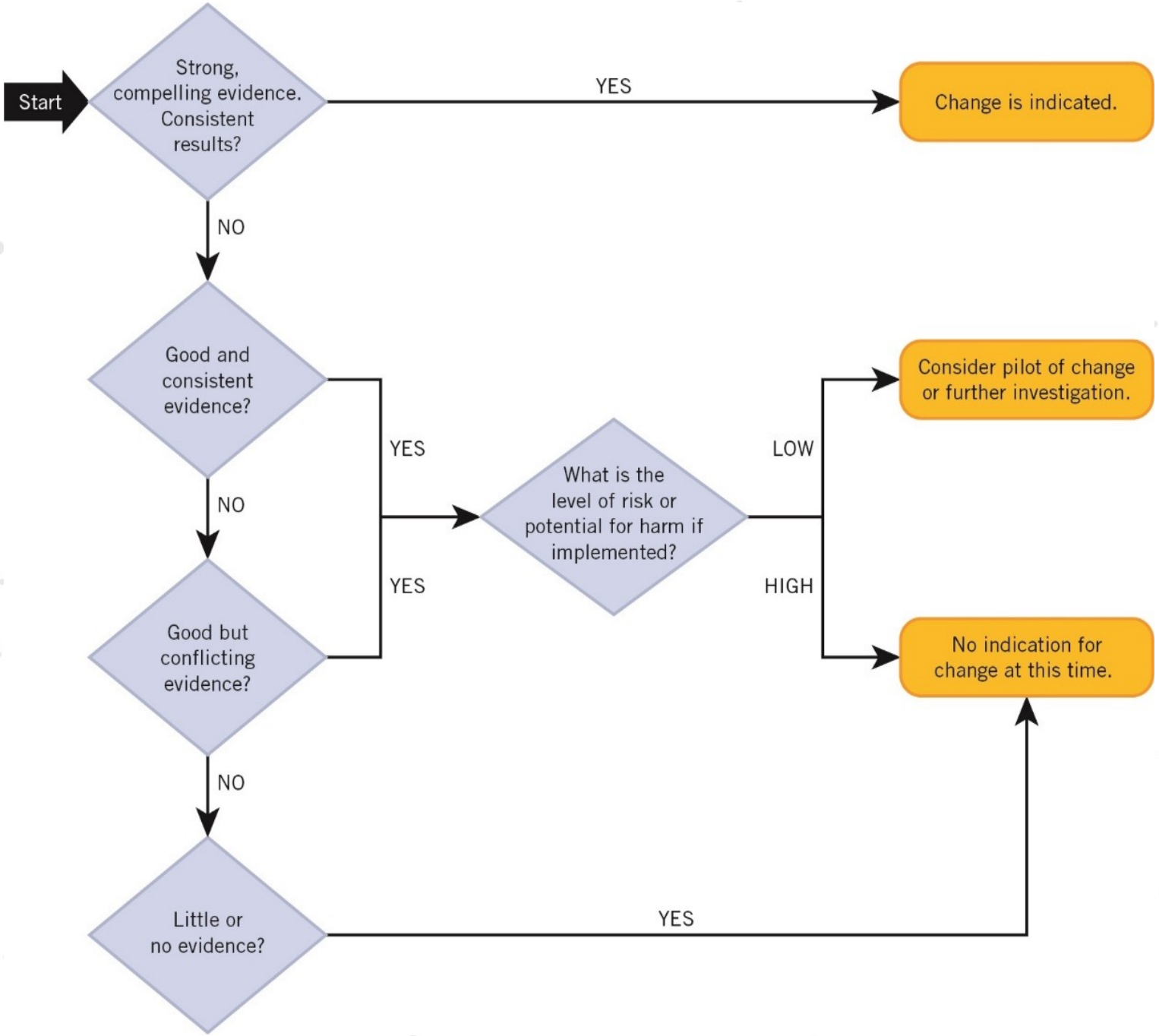
Step 4: Assemble, Appraise, & Synthesize the Body of Evidence

Major conclusions

- Current Level IB and IIB evidence supports the use of MBI to decrease loneliness and depression
- There are currently no established guidelines or standards of care for the use of MBI

Limitations

- Due to the newness of this topic, there are limitations in the literature
- Nearly all studies reported high rates of attrition
- Studies are small with significant variations in intervention


Start
Strong, compelling evidence. Consistent results?
YES
Change is indicated.
NO
Good and consistent evidence?
YES
What is the level of risk or potential for harm if implemented?
LOW
Consider pilot of change or further investigation.
NO
Good but conflicting evidence?
YES
HIGH
No indication for change at this time.
NO
Little or no evidence?
YES

Step 5: Design and Pilot the Practice Change

Project Purpose

The purpose of this evidence-based project was to implement a mindfulness-based intervention in community-dwelling, low-income adults experiencing loneliness and depression and to evaluate the outcomes of the MBI on feelings of loneliness.

Design and Pilot the Practice Change

Population

- Community dwelling adults who met criteria for and were enrolled in services at the clinic, who reported loneliness on the UCLA 3 item Loneliness scale

Inclusion Criteria

- Adults (18+), either English or Spanish speaking with a positive response on UCLA 3 item Loneliness Scale

Exclusion Criteria

- Non-English and non-Spanish speaking individuals

Design and Pilot the Practice Change

Measurement variables:

- UCLA three item Loneliness scale
- PHQ 9 depression scale

UCLA Three Item Loneliness Scale	
Answer Scale: Hardly Ever = 1 pt. | Some of the Time = 2 pts. | Often = 3 pts.	Point(s)
How often do you feel that you lack companionship?	
How often do you feel left out?	
How often do you feel isolated from others?	
Total Points = Loneliness Rate (9=Most Lonely/3=Least Lonely)	

Over the last 2 weeks, how often have you been bothered by any of the following problems? *(Use "✓" to indicate your answer)*	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

FOR OFFICE CODING *0* + _____ + _____ + _____

=Total Score: _____

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

○ **Not difficult at all**	○ **Somewhat difficult**	○ **Very difficult**	○ **Extremely difficult**

Design and Pilot the Practice Change

Institutional Review Board (IRB) Application

- Determination of not Human Subjects Research (July 2023)

Staff Education

- Expectations of staff
- In-person education (late August 2023)
- Full staff overview
- Primary intervention team in-depth education

Design and Pilot the Practice Change

Intervention:

- Two MBI created by the UCLA Mindful Awareness Research Center (MARC)
  - 1 – 7 minutes in duration and focuses on kindness to one's self
  - 2 – 9 minutes in duration and utilizes loving kindness meditation to increase social connectedness
- The two MBI ran consecutively
- It was planned the intervention would be viewed once weekly for three consecutive weeks.

Design and Pilot the Practice Change

UCLA 3 item loneliness screening and PHQ 9 completed at intake or reenrollment (current practice)

Identify individuals that screening positive

Schedule for three sessions of MBI, one per week for three consecutive weeks

Rescreening for loneliness and depression after each session and 1 month after last session

Design and Pilot the Practice Change

Data Collection plan

- 16 weeks (September-December 2023)
- Data was located within the EMR utilized by the clinic
- Screening forms were collected and then shredded
- MRN's of participants were collected and stored in a locked Excel sheet

Data Analysis

- Excel
- Descriptive Statistics

Design and Pilot the Practice Change - Results

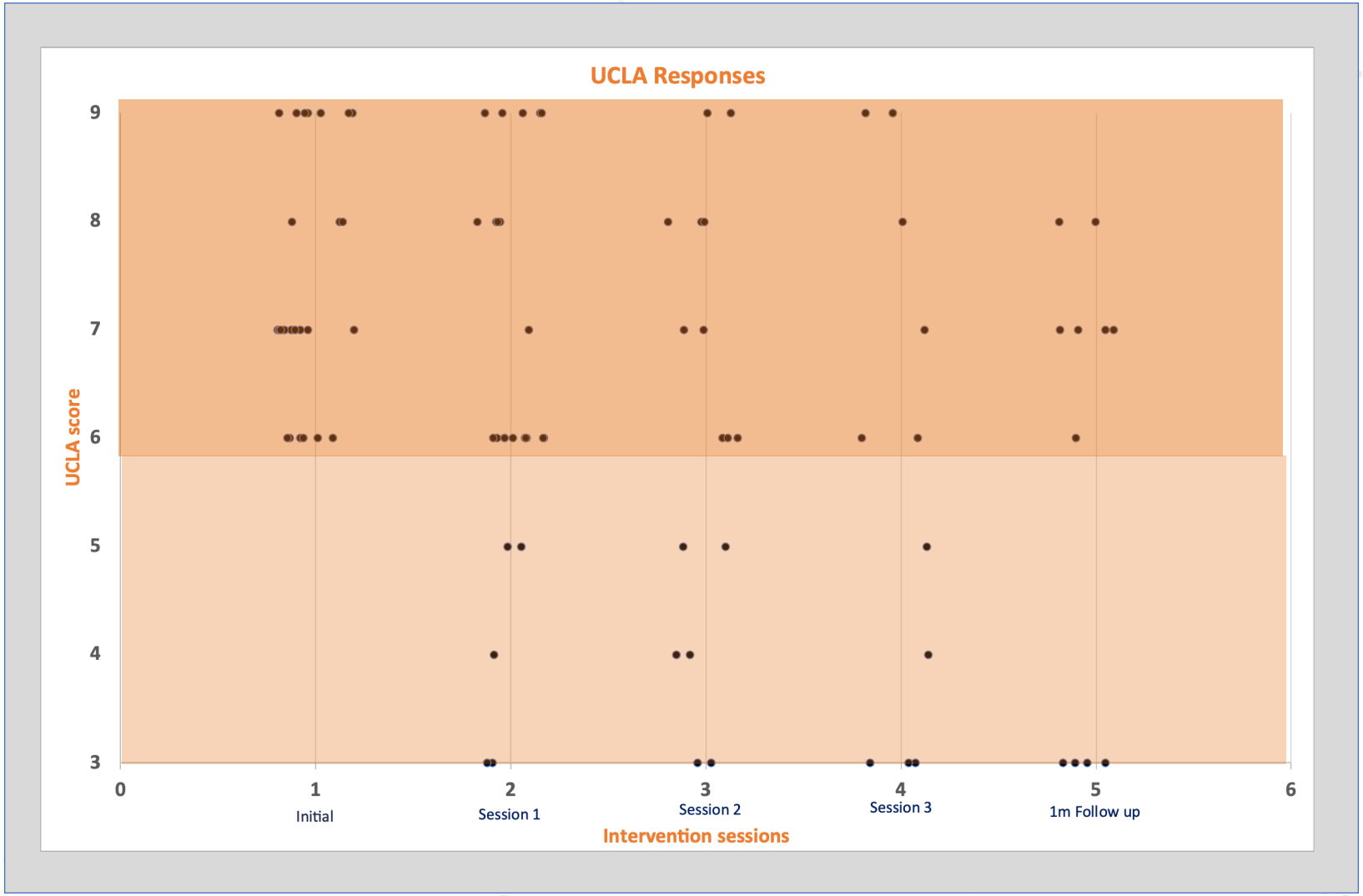
Sample Demographics

- Age
  - Range - 23-89
  - Mean - 48
- Language
  - English - 10
  - Spanish - 15

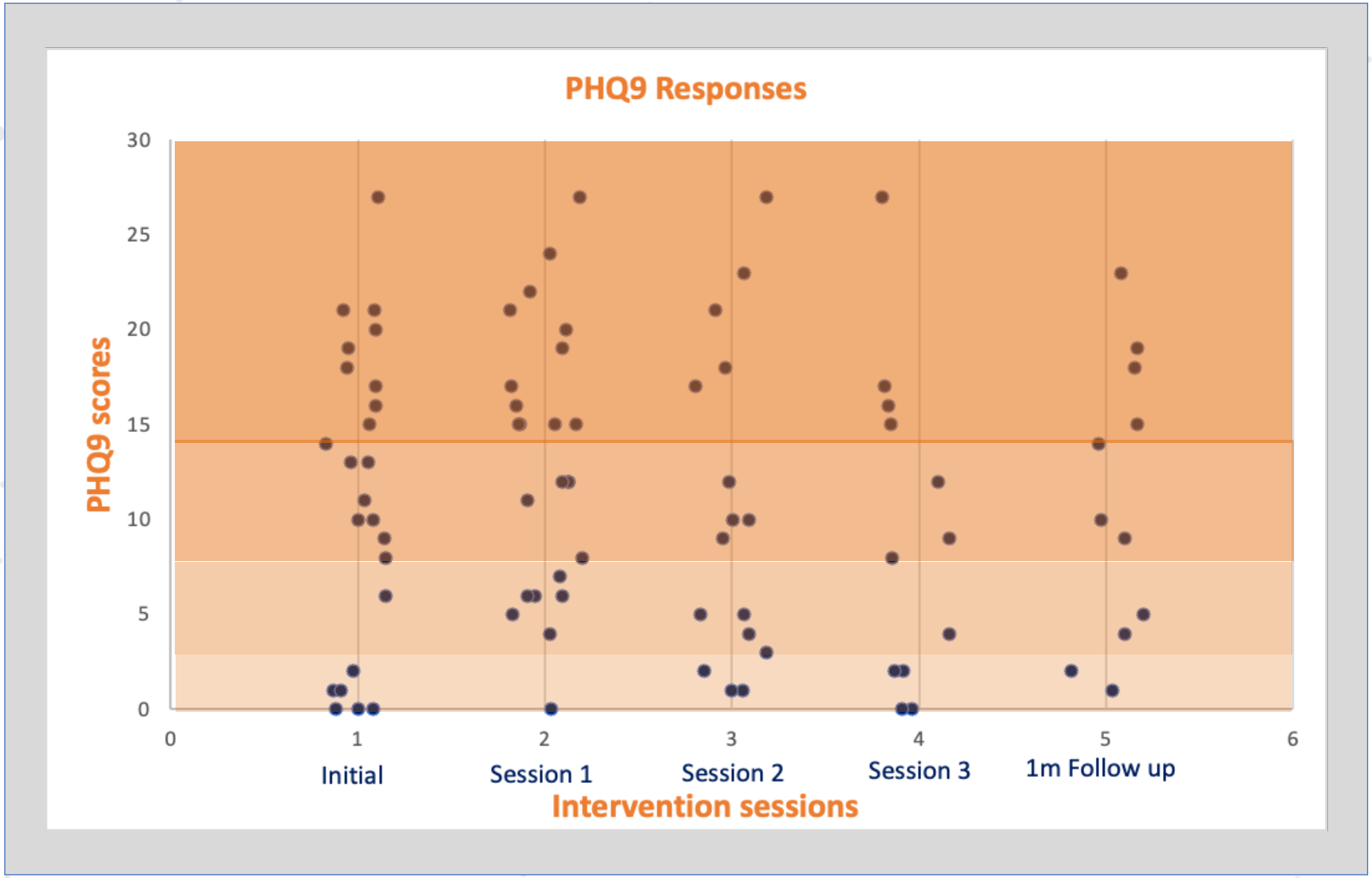
Design and Pilot the Practice Change - Results

PARTICIPANTS	N	%	M	RANGE
TOTAL SCREENED	231			
NEGATIVE	179	77.4		
POSITIVE	52	22.5		
PARTICIPATED	25	10.8		
UCLA 3 ITEM SCALE				
INITIAL	25	100	7.4	6-9
SESSION 1	25	100	6.2	3-9
SESSION 2	16	64	6.1	3-9
SESSION 3	12	48	5.5	3-9
FINAL	11	44	5.6	3-9
PHQ-9 SCREENING				
INITIAL	25	100	11.3	0-27
SESSION 1	25	100	13.1	0-27
SESSION 2	16	64	10.5	1-27
SESSION 3	12	48	9.3	0-27
FINAL	11	44	10.9	1-23

Design and Pilot the Practice Change - Results



Design and Pilot the Practice Change - Results



Design and Pilot the Practice Change -Discussion

- The attrition rate of this project was 50%, which is consistent with the literature.
- Improvements in both the UCLA 3 item and the PHQ-9 screening scores are consistent with the results found in the literature as well.
- At the 1 month follow up screening there was a slight increase in both the UCLA and PHQ 9 scores. The increase in scoring likely reflects the chronic disease nature of both loneliness and depression.

Step 6: Integrate and Sustain Practice Change

Strengths

- Clinic patient population growth
- Low operating cost
- Minimal burden on staffing
- Timeliness

Limitations

- Clinic growth limiting space
- Staff fluctuation
- Change in clinic priority

Step 6: Integrate and Sustain Practice Change

Barriers/Mitigation

- Low identification of positive screenings at enrollment
  - Moved screening to check in
- Multiple stations next to each other was distracting
  - Utilized empty exam rooms to allow for better privacy
- High rates of intervention appointment rescheduling or no show
  - Allowed participants to continue despite missing weeks

Future Changes

- Diversifying the mode of delivery
- Consideration of suggested number of session
- Engagement with additional community partners
- New SDOH screening

Integrate and Sustain Practice Change

Nursing Practice Implications

- The greatest implication with this project was the ability to transition this project from a stand-alone program to a standard primary care practice
- Low cost, low burden intervention, potentially high impact
- Contribute to the implementation literature experienced pitfalls, successes, and sustainability.

Step 7: Disseminate Results

Submission to SON/Libra

Clinic newsletter, executive summary

Board of Directors presentation

Poster presentation at VCNP in March 2024

Submission to the Holistic Nursing Practice journal

DNP Scholarly Project Team

- **DNP Advisor:** Dr Terri Yost, PhD, FNP-BC
- **Second Reviewer:** Dr Regina DeGennaro, DNP, MSN, RN, CNS, AOCN, CNL
- **Practice Mentor:** Dr Shyama Rosenfeld, MD
- **Clinic oversight:** Dr Mercedes Abbet, MD (Executive Director)

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