

Adaptations to Proposed Protocol among Getting People in Sync (GPS) Prediabetes Prevention Program Facilitators

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Overview

- The Diabetes Prevention Program (DPP)
- Gap in the field
- The Getting People in Sync (GPS) methodology
- Methods
- Results
- Discussion
- Conclusion

The Diabetes Prevention Program (DPP)

- Initiated in 1996
- 27 clinical center research study¹
 - 3,234 participants
 - Metformin and lifestyle intervention
- Lose 7% of initial weight reduced risk of diabetes by 58%²
 - Lifestyle intervention
 - Low fat and low calorie diet
 - 30 minutes of physical activity 5 days a week
- Prediabetes
 - Higher than normal blood glucose levels but not high enough to be called diabetes.³
 - 86 million or 27% in the U.S⁴

¹National Diabetes Information Clearinghouse, 2008

²Diabetes Program Research, 2002

³American Diabetes Association, 2012

⁴National Diabetes Statistics Report, 2014

Gap in the Field: Fidelity of Implementation

- Dissemination and Implementation Science
 - Evidence-based strategies used in clinical and public health practice¹
- Fidelity- Faithfulness to the procedures of intervention¹
 - Internal validity and expected outcomes²
 - Underreporting of fidelity of implementation³
- “Black box” evaluation⁴
- Importance of translation research?
 - Generalizability and guidance for researchers to report findings for policy⁵
- Lack of empirical findings limit “expert” consensus²

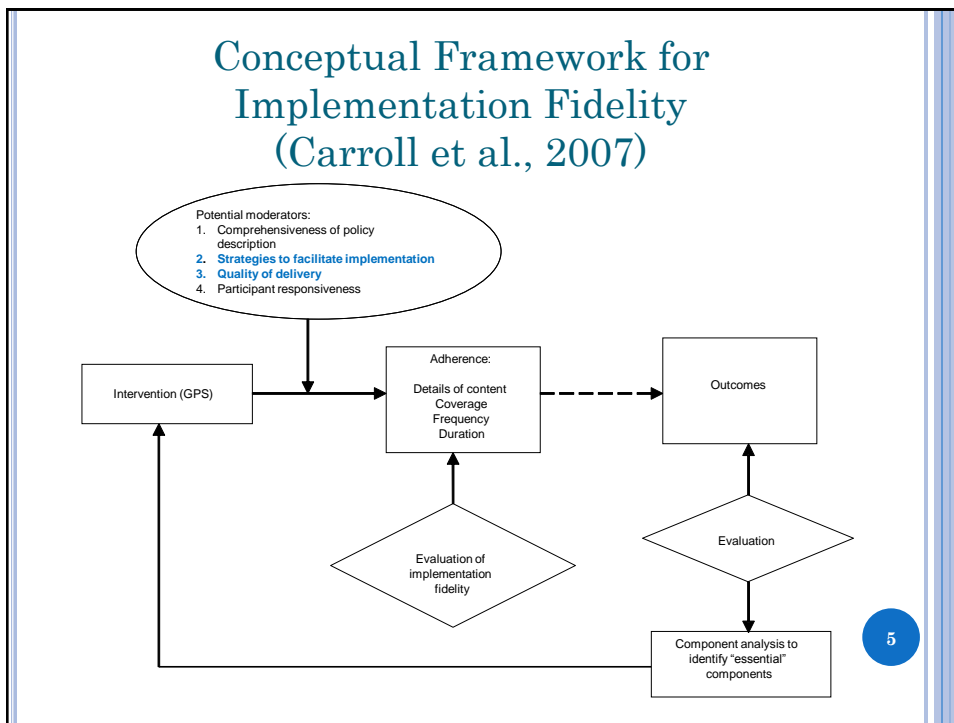
¹Santacroce, Maccarelli, and Grey, 2004

²Mowbray, Holter, Teague, and Bybee, 2003

³Frank, Coviak, Healy, Belza, and Casado, 2008

⁴Ali, Echouffo-Tcheugui, and Williamson, 2012

⁵Ackermann, 2012



Adaptations to Program Components

Strengthening Families Program for Parents and Youth 10-14¹

- Interviewed 42 facilitators
- Frequency of adaptations and reasons
 - 40% Delete
 - 75% Lack of time, forgetting material, disagreeing with content
 - 32% Add
 - 41% Clarify program material
 - 28% Change
 - 18% Group attributes
 - 18% Clarification

¹Hill, Maucione, and Hood, 2007

Qualitative Evaluation of the Getting People in Sync (GPS) Prediabetes Prevention Program

- Faith placed intervention with 16 weekly group sessions led by lay health facilitators
- Purpose
 - Determine GPS program facilitator behavior and adaptations during program implementation.
 - DPP → GPS → GPS Facilitator →GPS Participant
- Research questions
 - Did the facilitator adapt content in GPS Facilitator Guide during program implementation?
- Specific Aim
 - Examine adaptation made by the program facilitators to the GPS Facilitator Guide during program implementation through a qualitative analysis of the session audio recordings.

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GPS Methodology

Table 1. Translation of the DPP to GPS

Program Component	DPP	GPS
Style	One on one coaching	Group
Participants	~40 participants per coach	~15 participants per group
Program facilitators	Lifestyle Coach Registered dietician Master's degree	Facilitator Volunteer-church health ministry
Training	2-day national training: 16 hours	4 two-hour sessions: 8 hours
Trainers	Lifestyle Resource Core	Drexel Community Research Coordinator
Co-facilitator	None	Drexel graduate research assistant
Data collector	Lifestyle Coach	Co-facilitator
Recordings	2 of the 16 sessions	16 sessions

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GPS Methodology: Facilitator Training

Table 2. GPS Training Schedule

A Week Before Session	Sessions Covered
1	1-3
5	5-8
9	9-12
13	13-16

- 4 trainings sessions per cohort
 - Facilitated by Drexel Community Research Coordinator
- Content
 - Success, challenges, tips, and suggestions
 - Group dynamics
 - Activity demonstrations
 - Homework

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GPS Methodology: Facilitator Guide

Section I. Weekly Progress & Review

- A. Review Previous Week
- B. Participant Q&A
- C. Focus of the Week

Sections II and III. New Core Material

Section IV. Review & Self-Monitoring

- A. Review Current Week
- B. Tracking and Homework
- C. Next Week
- D. Thank the group for coming and remind them to keep up the good work at home!

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Qualitative Data Collection

20 Session audio recordings

- 7 facilitators
 - Spring 2013 cohort 3 groups
 - Fall 2013 cohort 4 groups
- 3 sessions
 - Week 2- Being a Fat and Calorie Detective
 - *Week 3- Ways to Eat Less Fat and Fewer Calories*
 - Week 8-Take Charge of What's Around You
 - *Week 7-Tip the Calorie Balance*
 - *Week 9-Problem Solving*
 - Week 15-You Can Manage Stress

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Methods

- Data Management
 - Session audio transcribed verbatim into MS Office Word
 - Imported transcripts and GPS Facilitator Guide into qualitative data software QSR NVivo 10
- Utilized strategies from Grounded Theory¹
 - Data emerged from the transcripts- Patterns or distinct differences
 - Initial annotation of data
 - Cyclic review of transcripts until saturation
 - Compared session audio transcripts to the GPS Facilitator Guide

¹Charmaz, 1990

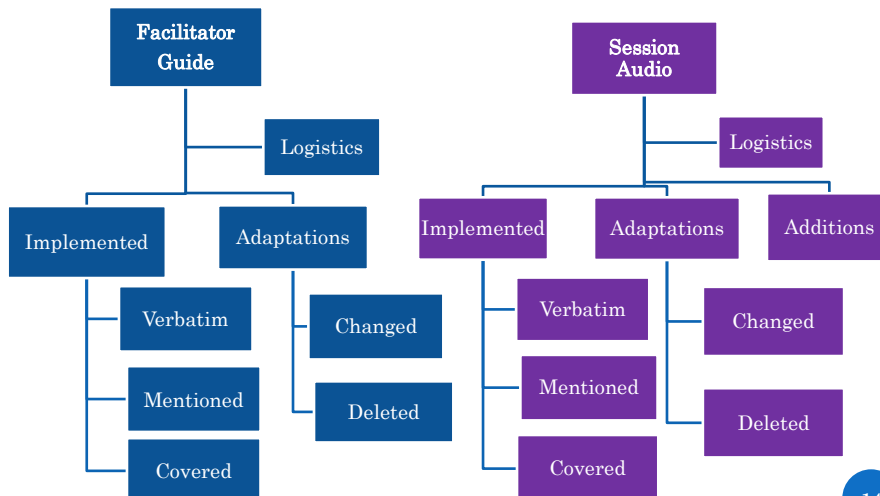
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Methods

- **Descriptive coding**¹
 - Describe the speaker
 - Session audio
 - Pseudo name
 - Group size
- **Topic Coding**¹
 - Sort by topic¹
 - Memo writing¹
- **Analytic coding**¹
 - What did I find interesting?¹
 - Why was this interesting to me?¹
 - Memo writing¹
 - In vivo Codes
 - Surprising or recurring¹
 - Matrix
 - Codes created and interpretations¹

¹ Richards, 2009

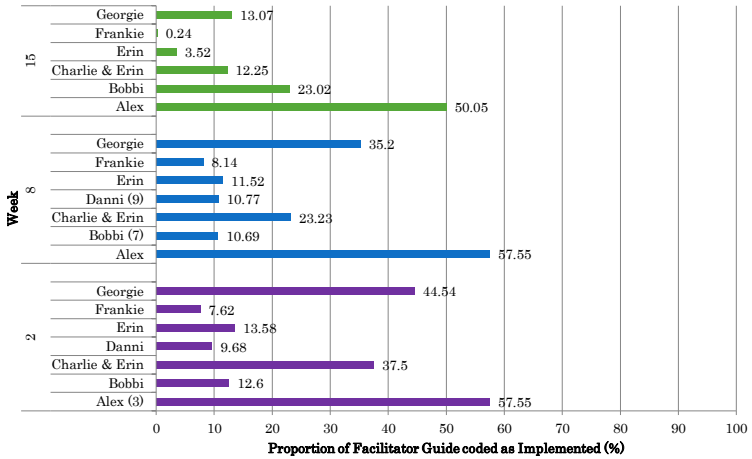
Diagram of Methods: Topic Coding¹



¹ Richards, 2009

Results

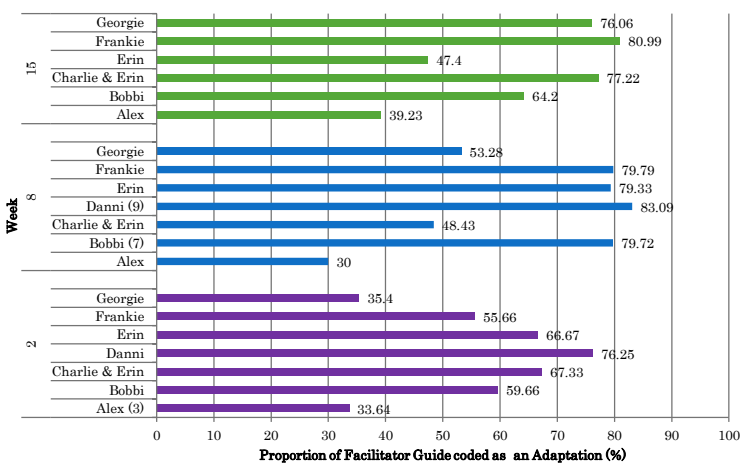
Figure 1. Proportion of GPS Facilitator Guide Implemented by Facilitator by Week



*Missing session, an alternate week selected and noted with ().

Results

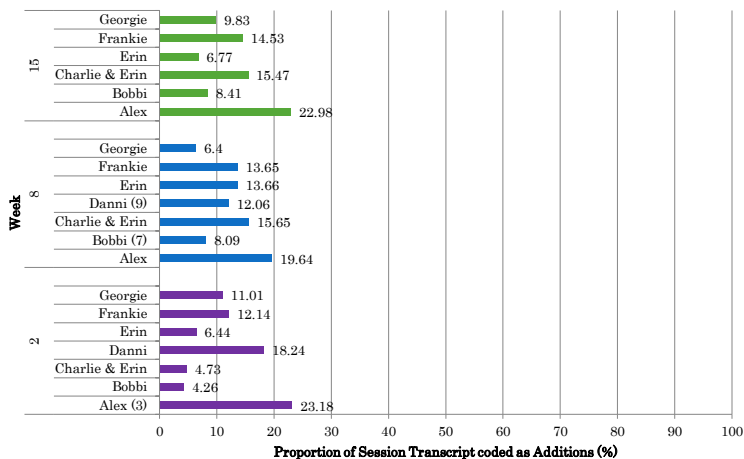
Figure 2. Proportion of GPS Facilitator Guide Adapted (Deletions and Changes) by Facilitator by Week



*Missing session, an alternate week selected and noted with ().

Results

Figure 3. Proportion of Additions to GPS Sessions by Facilitator by Week



*Missing session, an alternate week selected and noted with ().

Results

Table 3. Adaptations -Deletions to Facilitator Guide

Theme	Content
Deletion of definitions	<p>Week 8 “<i>Scientists who study learning call these things in your surroundings ‘cues’.</i>”</p> <ul style="list-style-type: none"> -Cues can be positive or negative. -Cues can become a problem when they have a negative effect on your behavior, and lead you to overeat or be inactive. -Food cues: things that affect eating -Activity cues: things that affect activity.”
Deletion of practicing knowledge	<p>Week 15 “<i>Let’s Practice: Ask participants to create an action plan for either preventing or coping with stress that this program causes.</i>”</p>
Deletion of review of new material	<p>“<i>Review of Week 15: You Can Manage Stress</i>”</p> <ul style="list-style-type: none"> -Stress effects how you think, how you feel, and what you do -Coping with Stress is essential -Use tips from today to prevent and manage stress”

Discussion

- Findings
 - Most common adaptations- Deletions
 - Material most often deleted- Defining content, reviewing new material, and practicing new skills.
 - Individual facilitator behaviors
- Limitations
 - Analyzed only 3 sessions per Facilitator
 - Richness, complexity, and detail of the data¹
 - Inter-rater reliability
 - Experiences specific to the program and facilitators²
 - Log trail²
- Strengths
 - Proportions from coding GPS Facilitator Guide
 - Patterns within and across the Facilitators and sessions.

¹Baker and Edwards, 2012
²Richards, 2009

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Conclusion

- Importance of assessing dissemination and implementation of evidence-based programs
 - Process of achieving program outcomes¹
 - When and why adaptations are made
 - Inform training, implementation, and support²
 - Researchers inform policy around diabetes prevention³
- Future research questions
 - Additions
 - Co-facilitators' role
 - Consider adaptations and GPS participant outcomes
 - Assess GPS Program Facilitators' experiences

¹Stame, 2004
²Ali, Echouffo-Tcheugui, and Williamson, 2012
³Ackermann, 2012

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Ahéhee'!

- Advisor and PI: Nicole A. Vaughn, PhD
- GPS Program Facilitators
- GPS Program Participants
- GPS Research Team
 - Crystal Wyatt, Community Research Coordinator
 - Purni Abeysekara, MPH
 - Alexis Amankwanor, MPH
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Questions?

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