

Steering Committee Members



The Steering Committee is made up of scientists, clinicians, RCC leadership and persons with lived experience from multiple organizations and institutions from across the US.

Principal Investigators:



John F. Kelly



Bettina B. Hoeppe



Robert D. Ashford



Patty McCarthy



Julia Ojeda



Philip Rutherford



Brandon G. Bergman



Lauren A. Hoffman



Vinod Rao

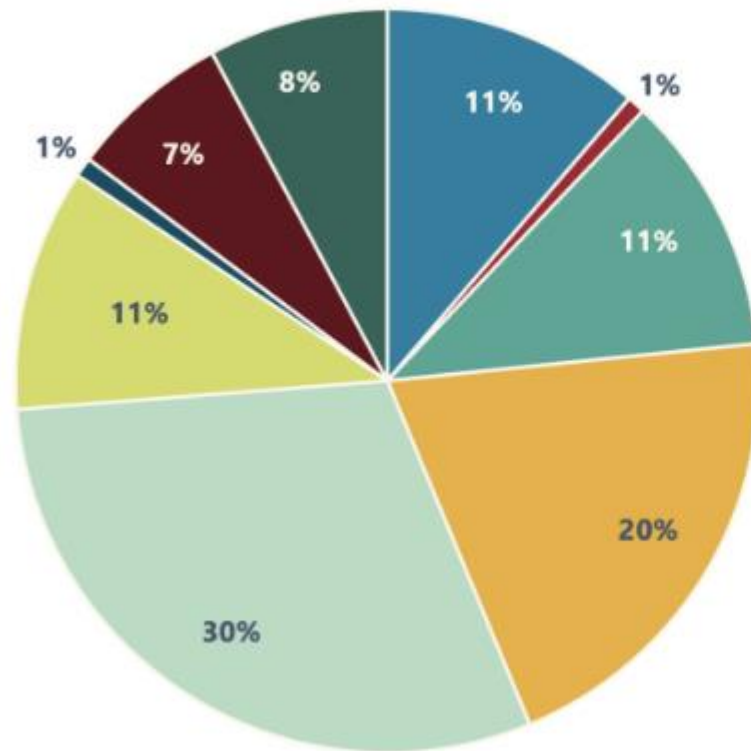


Amy A. Mericle

Seminar Attendee Demographics



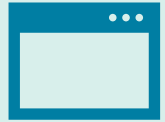
Seminar Attendees



- Healthcare decision maker (e.g., hospital leadership, department of health, etc.)
- Prescriber (of medications for OUD)
- Clinician
- Scientist
- RCC leader / staff
- Peer support worker / volunteer
- RCC participant
- Recovery advocate
- None of the above



Polling Questions



A pop-up Zoom window will appear with the poll questions



You must complete all questions before clicking to submit

→ Remember to scroll down to see all the questions!



We will share the poll results after a few minutes



Your responses will remain anonymous



The Consortium on Addiction Recovery Science (CoARS)



CoARS collective mission:

(PI: Aaron Hogue, Partnership to End Addiction - <https://drugfree.org/staff/aaron-hogue/>)

To advance the science on recovery support services through research networking, training and mentoring students and early career scientists, and building community partnerships.

○ Pilot study funding

- On RCCs (Ours: <https://www.recoveryanswers.org/addiction-research-summaries/funding-for-pilot-studies/>) – LOI deadline extended to May 16
- On recovery housing (<https://istarr.org.org/pilot-studies/>) – Next funding cycle opens in October

○ Work groups and Seminars

- See CoARS calendar - <https://www.recoveryanswers.org/coars/>
- I-STARR Webinar: Recovery Housing 101 – June 6th 11am-12pm PT [Webinar Registration - Zoom](#)



RCC Live Feature



We are featuring a different RCC at the start of each of our seminars in order to allow all participants to learn first-hand about RCCs



Javier H Alegre, BScB, CPSS

Executive Director

Latino Behavioral Health Service



Presenter



Dr. H. Harrington "Bo" Cleveland
Professor
The Pennsylvania State University



Discussants



Dr. Stephanie Wemm, PhD

Associate Research Scientist
Yale Stress Center



Dr. Jon Soske, PhD

Senior Researcher, Lifespan Division of
Addiction Medicine
Systems of Care Fellow, RISD Center for
Complexity



The Development and Piloting of Within-Person Data Collection Materials and Protocols: A University-Community Collaboration

H. H. Cleveland
Penn State University

Acknowledgements: Pilot Study funding from NIDA R24 via Recovery Research Institute/Mass General (2022-2023) and Penn State's Consortium on Substance Use and Addiction's (CSUA) Community Fellowship (2019-2020)

Penn State Recovery Research Group

psurecoveryresearch@psu.edu

- Bo Cleveland
- Tim Brick
- Kyler Knapp (U Buffalo)
- Hannah Apsley
- Erik Dolgoff
- Eric Harrison
- Wen Ren
- Joe Lancaster



Talk Outline

- Define recovery and explain why we collect “within-person” data
- Describe the “Within-Person Assessment of Recovery Community Centers” project
- Set out three goals of the RCC project
- Present findings that address these goals

What is “Recovery”

“An individualized, intentional, dynamic, and relational process involving sustained efforts to improve wellness” after substance use disorder.

-Recovery Research Collaborative (2019)

- **Individualized:** Everyone has their own challenges and resources (personal characteristics, contexts, histories, economics, race, etc. can all make a difference)
- **Intentional:** It requires purposeful efforts
- **Dynamic:** Stressors, supports, and wellbeing can vary across time
- **Relational:** It is often supported by others, not just the individual
- **Sustained efforts:** It is not a one-time accomplishment, but an everyday task
- **Improved wellness:** It is beyond “not using”- more holistic

Value of Using a Within-Person Approach for Examining Recovery

A within-person approach requires repeated, often intensive (“closely-spaced”) assessments of individuals

We apply a within-person approach to:

Capture the dynamics of the individualized and relational mechanisms through which recovery is built and maintained

Measure and assess the daily stressors and coping strategies used to maintain well-being

Determine if and how recovery support programs impact the daily processes through which recovery is maintained

The Recovery Community Center (RCC) Project

Specific Goals:

Goal 1: Consult with RCC members and staff to select data collection protocols and develop survey instruments

Goal 2: Collect data and assess quality

Goal 3: Determine how data can be used to understand RCC experiences and their implications

Goal 1:

Partner Pennsylvania Recovery Community Centers

The **Recovery Advocacy Support and Empowerment (RASE) Project** (Harrisburg, PA) offers multiple recovery-related services, including advocacy, several sober-living housing facilities, warm-handoff program, life skills classes, and hosts mutual help support meetings. RASE manages two recovery community centers in York and Lancaster Counties. Runs several recovery residences. Supports MAT/MOUD pathways.



Lost Dreams Awakening (New Kensington, PA) provides training for recovery coaches, education about recovery capital, and other recovery-related trainings for individuals, businesses and nonprofits. LDA's RCC hosts education programs and support services, such as mutual help support meetings and organized social activities. Provides MAT/MOUD support.



Goal 1: Consult with RCC members and staff to select data collection protocols and develop survey instruments

Step 1: Gathering RCC Input

- Research Team travels to RCCs
- Provide food and compensation
- Feedback process
 - Two 3-hour long meetings at each partner RCC
 - Time 1: Review overall study protocols, baseline, and explanation of daily data collections; introduce members to daily survey
 - Time 2: Review changes and focus on modifying daily survey items

Step 2: Use RCC Member Feedback

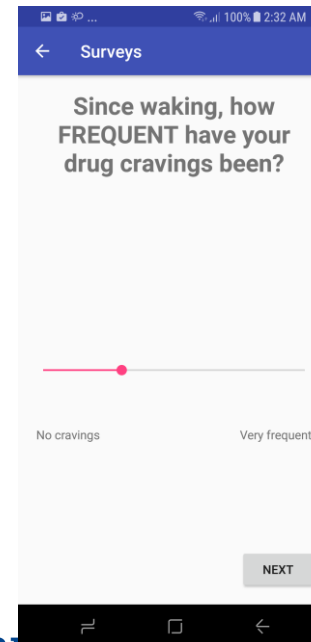
RCC community members and staff were open to providing feedback and appreciated being included in the development of research

RCC member feedback:

1. Shaped the scope of data collection: 10 days, once-a-day
2. Added to the topics we assessed: transportation, family support and interactions
3. Suggested different item ordering
4. Modified the terminology used for meetings and places, programs, etc.

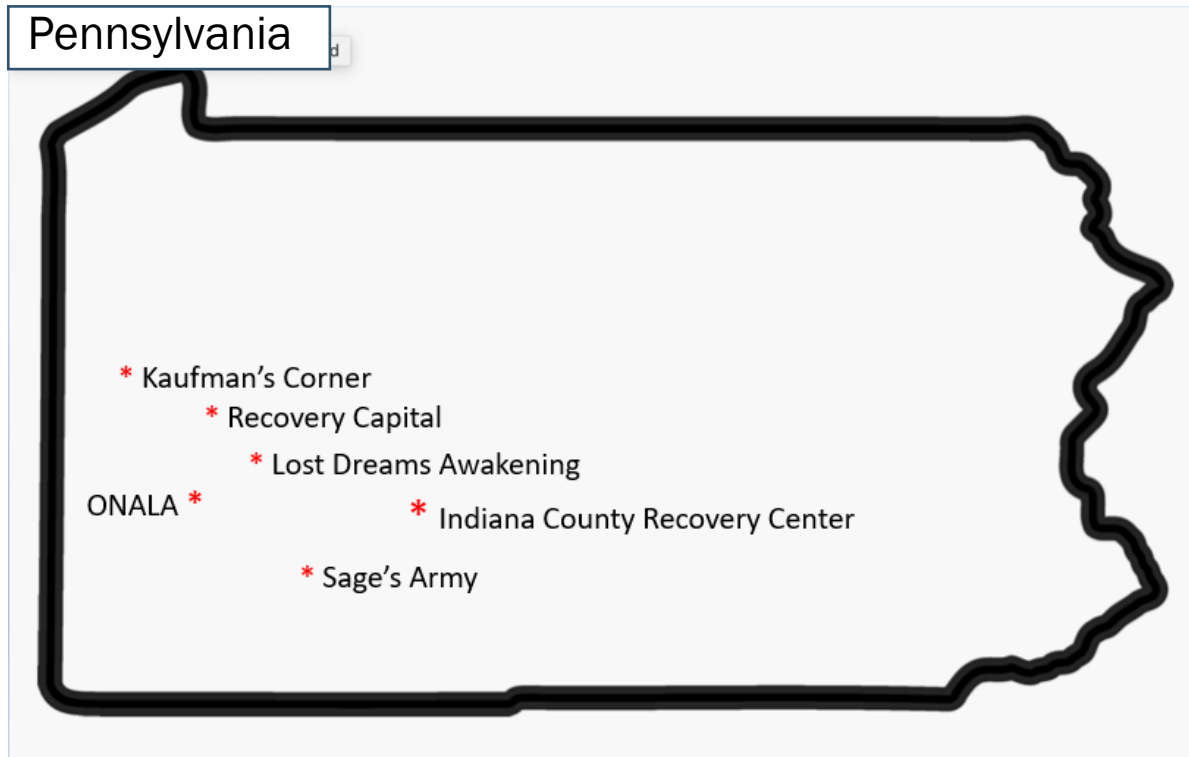
The Recovery Community Center (RCC) Project

- General Design:
 - Baseline Survey
 - Demographics, substance use histories, physical/mental health, recovery histories
 - 10-Day Smartphone Survey
 - Used the Penn State Wear-IT App to gather Intensive Longitudinal Data (ILD) on daily experiences and intra-personal states
 - Assessed craving, affect, experiences at the RCC, work, family interactions, support meetings



Goal 2: Collect data and evaluate quality

Goal 2 (a): Organize Data Collections at Six Recovery Community Centers



- Some of initial RCCs contacted did not have active “drop-in” centers
- RCCs vary in organizational structure, strength of linkage between management and members, size, and rurality

Premeeting Zoom with Potential RCC Partners

Review goal of study

Discuss recovery as a dynamic individualized day-to-day process

Discuss compensation and confidentiality

Discuss texting protocols

Schedule date (weekend or weekday), time and number of data collection sessions



Goal 2 (b): Collect data and assess quality

Data entry compliance

Demographics of sample

Within-person variability over time

Reliability of within-person assessment



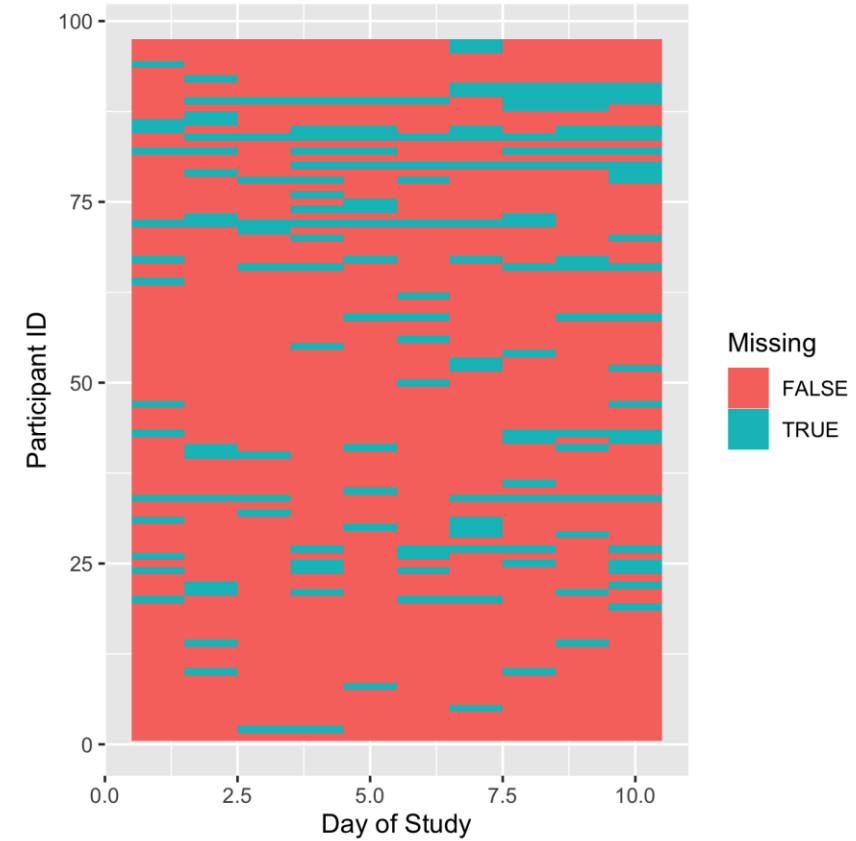
EMA data entry compliance

Surveys completed per person for each RCC.

Recovery Community Center	N _{Persons}	Mean (SD), Range	N _{Days} (%)
Location #1	25	8.96 (1.3), 4-10	217 (86.8)
Location #2	15	8.23 (2.04), 1-10	107 (71.3)
Location #3	5	7.95 (1.68), 6-10	38 (76.0)
Location #4	27	9.23 (1.35), 2-10	235 (87.0)
Location #5	14	8.68 (1.29), 5-10	118 (84.3)
Location #6	11	9.27 (1.36), 3-10	97 (88.2)
Total Sample	97	8.37 (2.10), 1-10	812 (83.7)

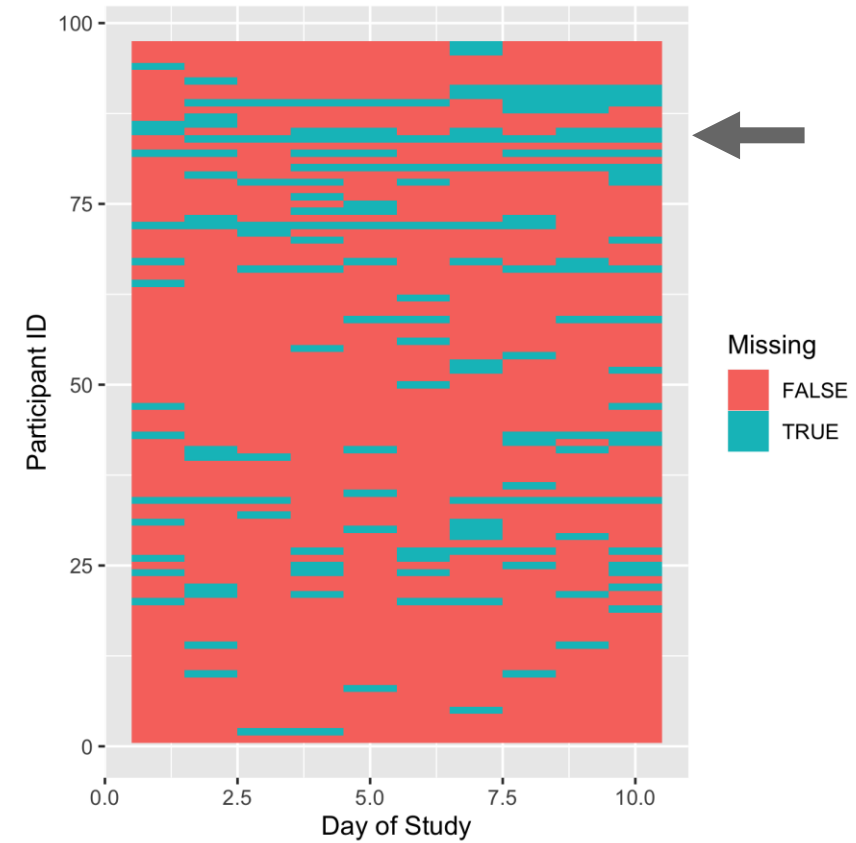
Part 1: EMA Compliance

- Figure 1. Patterns of complete and missing data for each individual.



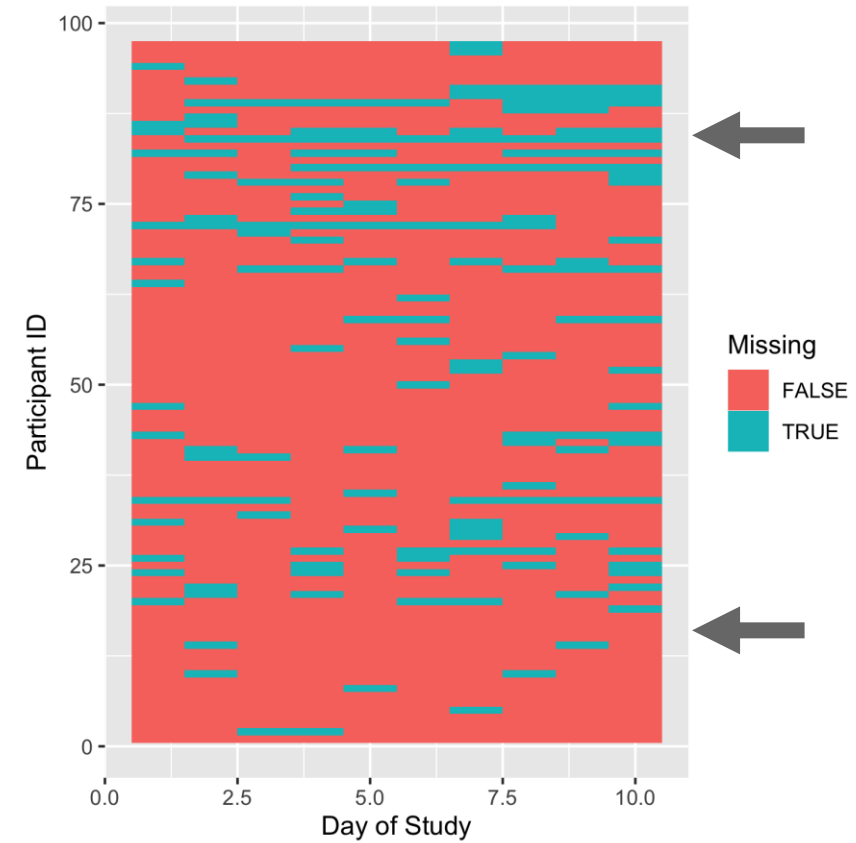
Part 1: EMA Compliance

- Figure 1. Patterns of complete and missing data for each individual.



Part 1: EMA Compliance

- Figure 1. Patterns of complete and missing data for each individual.



Demographics (N = 97)

- **Age**
 - Range: 22.38-76.79
 - Mean: 42.39
 - SD: 12.14
- **Sex**
 - Male: 42 (43.3%)
 - Female: 52 (53.6%)
 - Preferred not to answer: 2 (2.1%)
 - Missing: 1 (1.0%)
- **Gender:**
 - Male: 43 (44.3%)
 - Female: 50 (51.5%)
 - Nonbinary: 2 (2.1%)
 - Transgender: 2 (2.1%)
 - Prefer not to answer: 0
- **Ethnicity:**
 - Not of Hispanic/Latinx Origin: 95 (97.9%)
 - Hispanic/Latinx: 1 (1.0%)
 - Did not answer: 1 (1.0%)
- **Race:**
 - American Indian/Alaskan Native: 1 (1.0%)
 - Black or African American: 16 (16.5%)
 - White: 75 (77.3%)
 - Multiracial: 3 (3.1%)
 - Other: 2 (2.1%)

Demographics, cont.

- **Household Income:**

- Less than \$10,000: 21 (21.6%)
- \$10,000 to \$24,999: 25 (25.8%)
- \$25,000 to \$49,999: 21 (21.6%)
- \$50,000 to \$74,999: 12 (12.4%)
- \$75,000 or more: 16 (16.5%)
- Didn't answer: 2 (2.1%)

~70%

- **Education:**

- Less than high school: 2 (2.1%)
- Some high school: 7 (7.2%)
- High school diploma or GED: 31 (32.0%)
- Some college, no degree: 24 (24.8%)
- Associate degree: 11 (11.3%)
- Trade or professional school: 3 (3.1%)
- Bachelor's Degree: 15 (15.5%)
- Master's Degree: 2 (2.1%)
- More than a Master's: 1 (1.0%)
- Didn't answer: 1 (1.0%)

~80%

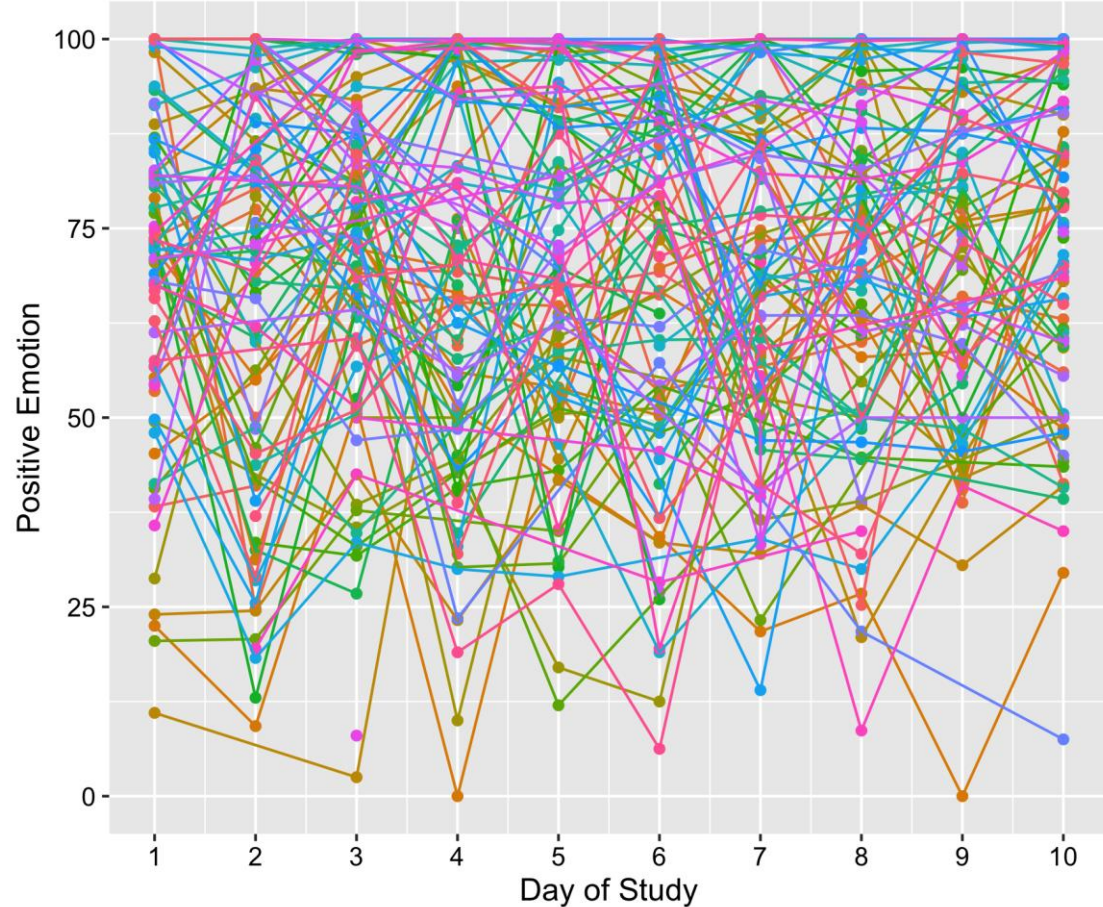




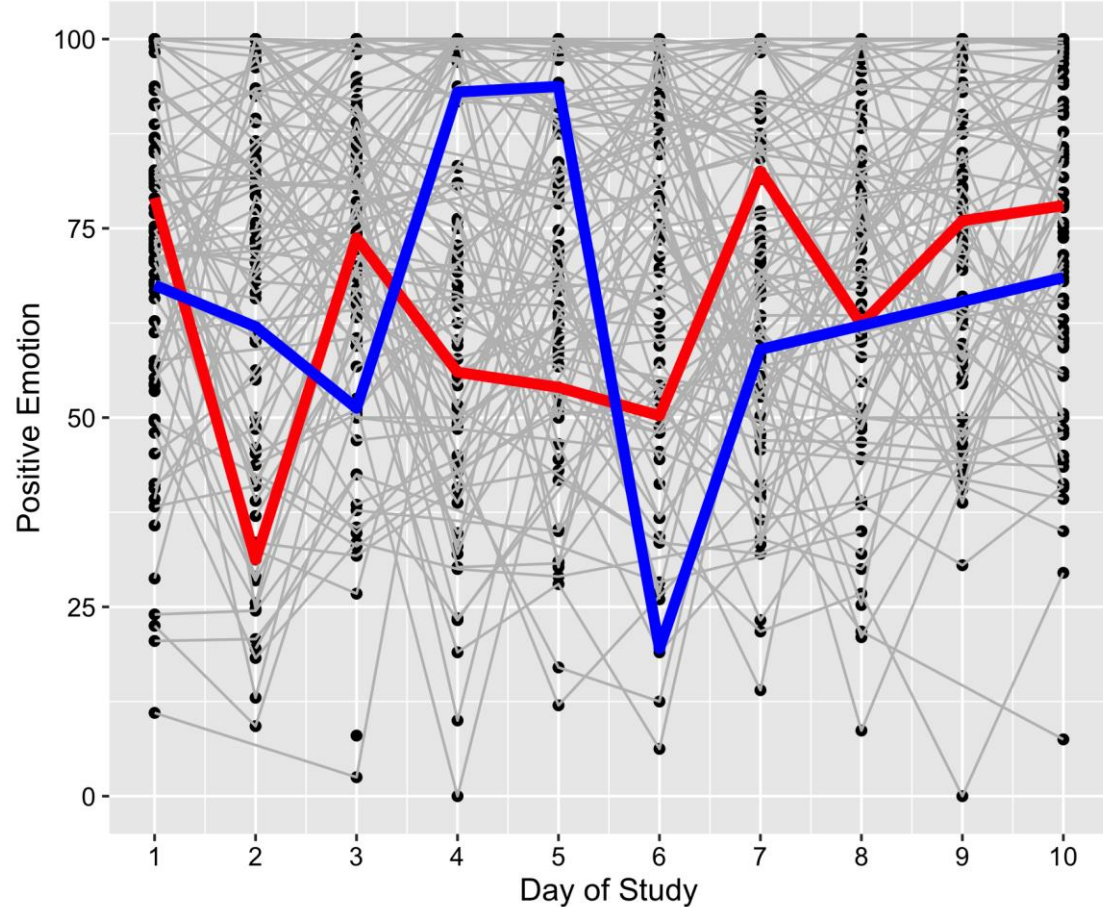
Table 3. Descriptive statistics capturing within- and between-person variability.

Emotion Variable	M	Within-person SD	Between-person SD
Lonely	27.78	19.44	22.43
Anxious	38.45	20.66	24.20
Irritable	29.20	21.14	20.61
Sad	25.29	19.13	19.87
Angry	19.53	16.43	17.05
Calm	69.74	18.43	17.03
Joyful	67.56	18.09	20.70
Happy	70.55	17.68	17.71
Relaxed	67.57	20.97	18.50
Negative Emotion	28.02	14.25	18.29
Positive Emotion	68.57	15.57	17.03
Centrality	75.76	13.64	18.85
Commitment	83.18	10.35	17.55
Connection	78.49	13.06	20.46
Feelings	81.86	10.38	19.41
Glad	86.22	8.28	16.41
Goals	73.24	15.32	19.40
Community	81.62	10.72	19.18
Recovery Identity	80.37	8.66	17.37

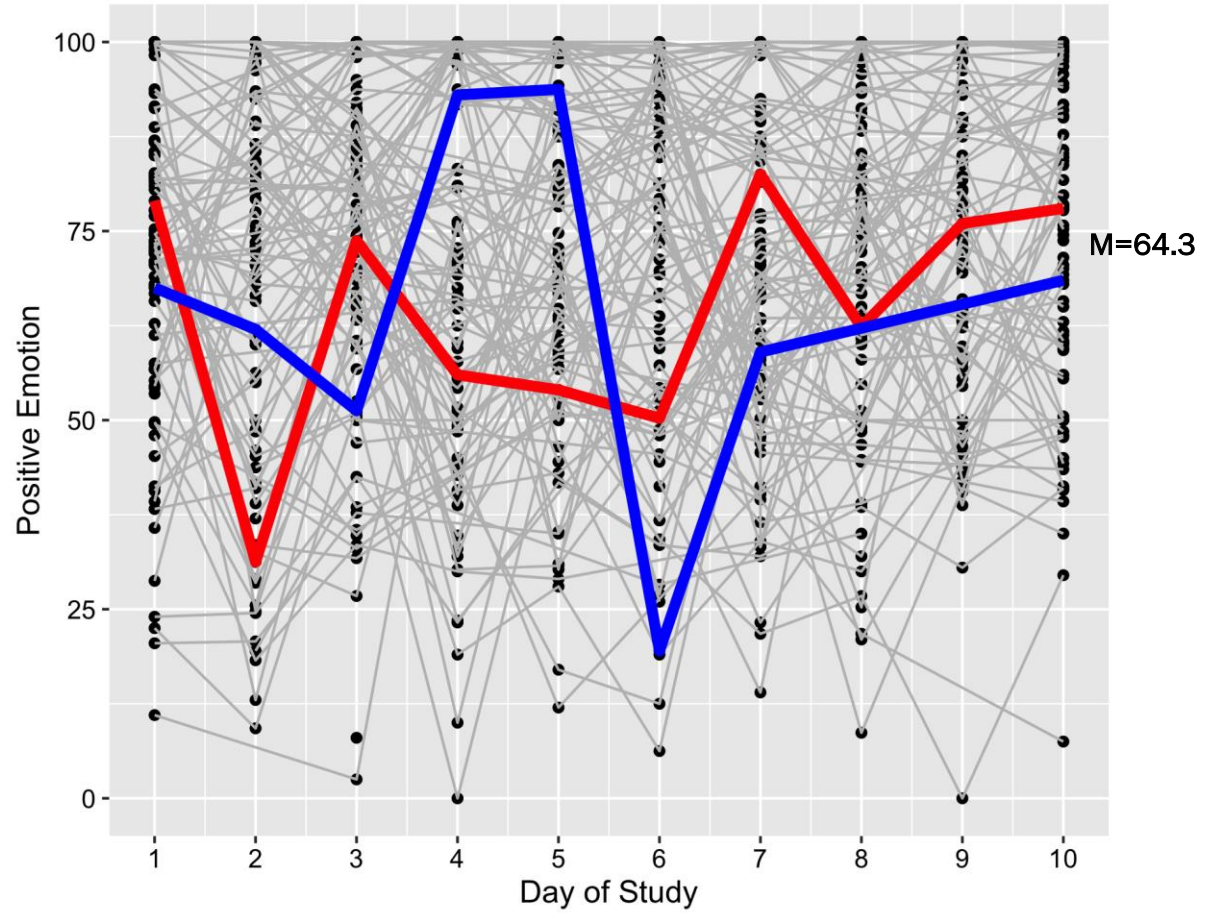
Demonstrating
within-person
variability over
time



Demonstrating within-person variability over time



Demonstrating within-person variability over time



Reliability

Positive Emotions

Within-person = 0.80
Between-person = 0.82

Negative Emotions

Within-person = 0.74
Between-person = 0.82

Recovery Identity

Within-person = 0.90
Between-person = 0.95

Table 4. Variability in positive emotion, negative emotion, and recovery identity

Positive Emotion				
Parameter	Estimate	S.E.	Variance	S.D.
<u>Fixed Effects</u>				
Intercept	68.97	1.83	–	–
<u>Random Effects</u>				
Person:day variance	–	–	221.10	14.87
Person:item variance	–	–	44.22	6.65
Day:item variance	–	–	1.04	1.02
Between-person variance	–	–	238.38	15.44
Between-day variance	–	–	0.00	0.00
Between-item variance	–	–	1.34	1.16
Residual variance	–	–	218.94	14.80
Negative Emotion				
Parameter	Estimate	S.E.	Variance	S.D.
<u>Fixed Effects</u>				
Intercept	27.80	3.27	–	–
<u>Random Effects</u>				
Person:day variance	–	–	181.19	13.46
Person:item variance	–	–	86.70	9.31
Day:item variance	–	–	0.20	0.44
Between-person variance	–	–	274.70	16.57
Between-day variance	–	–	0.00	0.00
Between-item variance	–	–	36.75	6.06
Residual variance	–	–	310.59	17.62
Recovery Identity				
Parameter	Estimate	S.E.	Variance	S.D.
<u>Fixed Effects</u>				
Intercept	80.51	2.54	–	–
<u>Random Effects</u>				
Person:day variance	–	–	91.12	9.55
Person:item variance	–	–	39.65	6.30
Day:item variance	–	–	1.35	1.16
Between-person variance	–	–	278.01	16.67
Between-day variance	–	–	2.12	1.46
Between-item variance	–	–	16.23	4.03
Residual variance	–	–	115.26	10.74



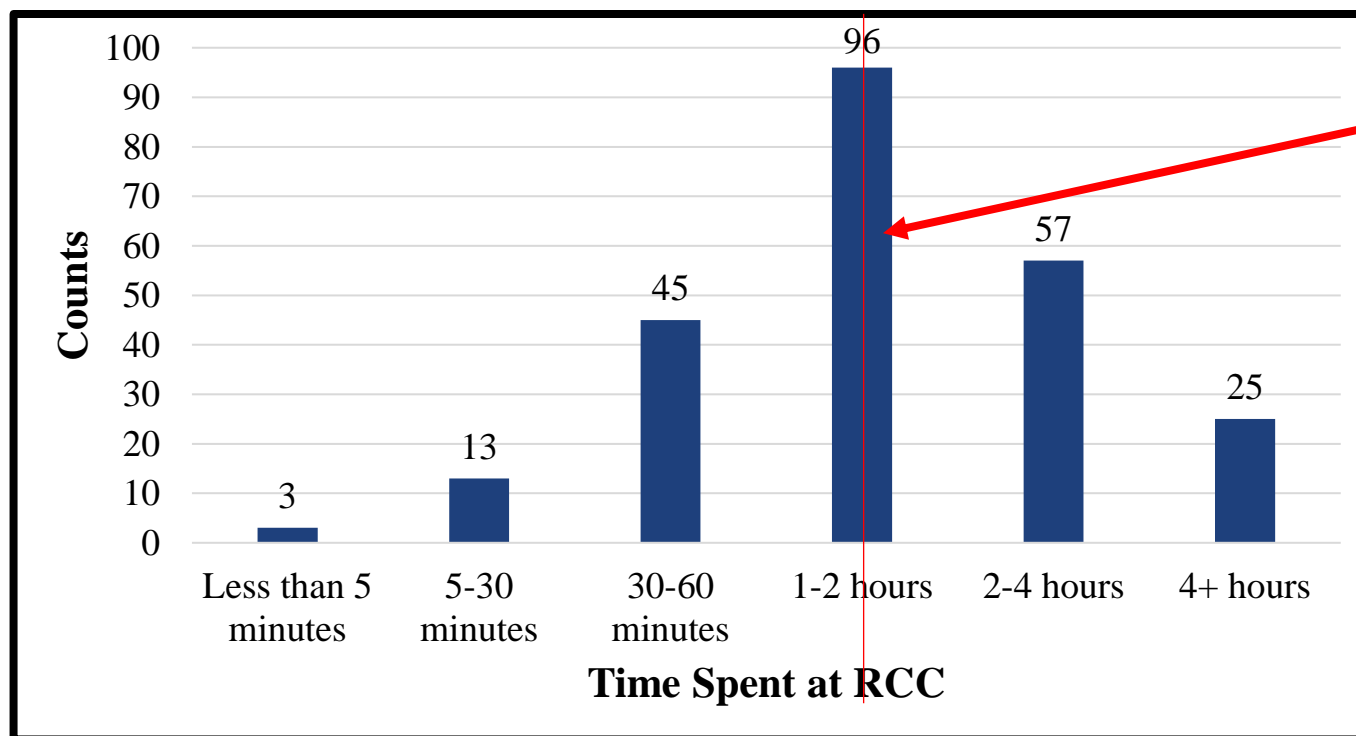
Goal 3: Determine how data can be used to understand RCC experiences and their implications

Research Questions

1. How do people use and perceive RCCs?
2. Do RCCs serve different groups of members?
3. Can going to an RCC positively impact members recovery states?

Time Spent at RCCs

- RCCs were visited on 168 (30.1%) of days with survey information
- 8 (8%) people never visited the RCC on study days
- For those who did visit the RCC (N = 89), average number of days visited per person: 2.74 (range = 1-7)



The mean and median time spent is 1-2 hours

Perceptions of RCC Experiences (Response Scale of 1-100)

	M	SD	Range	ICC
Helpful to recovery	86.03	16.6	21-100	0.55
Helpful to well-being	86.12	17.2	21-100	0.45
How supported by members/staff	88.18	16.8	15-100	0.29
How connected to members/staff	87.80	16.8	15-100	0.37
How accepted by members/staff	88.70	16.0	9-100	0.32
How helpful were RCC resources	87.78	16.2	28-100	0.38
How helpful was info at RCC	86.84	16.2	28-100	0.47

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Main takeaways:

- On average, the sample found daily RCC experiences to be useful to recovery (with a lot of variation)

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Main takeaways:

- On average, the sample found daily RCC experiences to be useful to recovery (with a lot of variation)
- 45% - 70% of the variance in these items is due to within-person variation
- Even for the same person, there is day-to-day variation in how useful the RCC seems

Nine Daily Activities at RCC

Activity	Total Count	% Visit Days	M/ person	SD/ person	Range/ person
Attended a recovery support group meeting	137	81.5%	1.54	1.59	0-6
Volunteered/gave back to community	32	19.0%	0.36	0.80	0-4
Just hung out/social activities	112	66.7%	1.26	1.39	0-7
Connecting to the recovery community	103	61.3%	1.16	1.42	0-6
Used computer or WiFi	22	13.1%	0.25	0.64	0-4
Received recovery coaching	20	11.9%	0.22	0.72	0-5
Tried to help or be there for others	64	38.1%	0.72	1.11	0-5
Got advice (financial, legal, etc.)	10	6.0%	0.11	0.46	0-3
Took part in health/meditation/self-care class	10	6.0%	0.11	0.32	0-1

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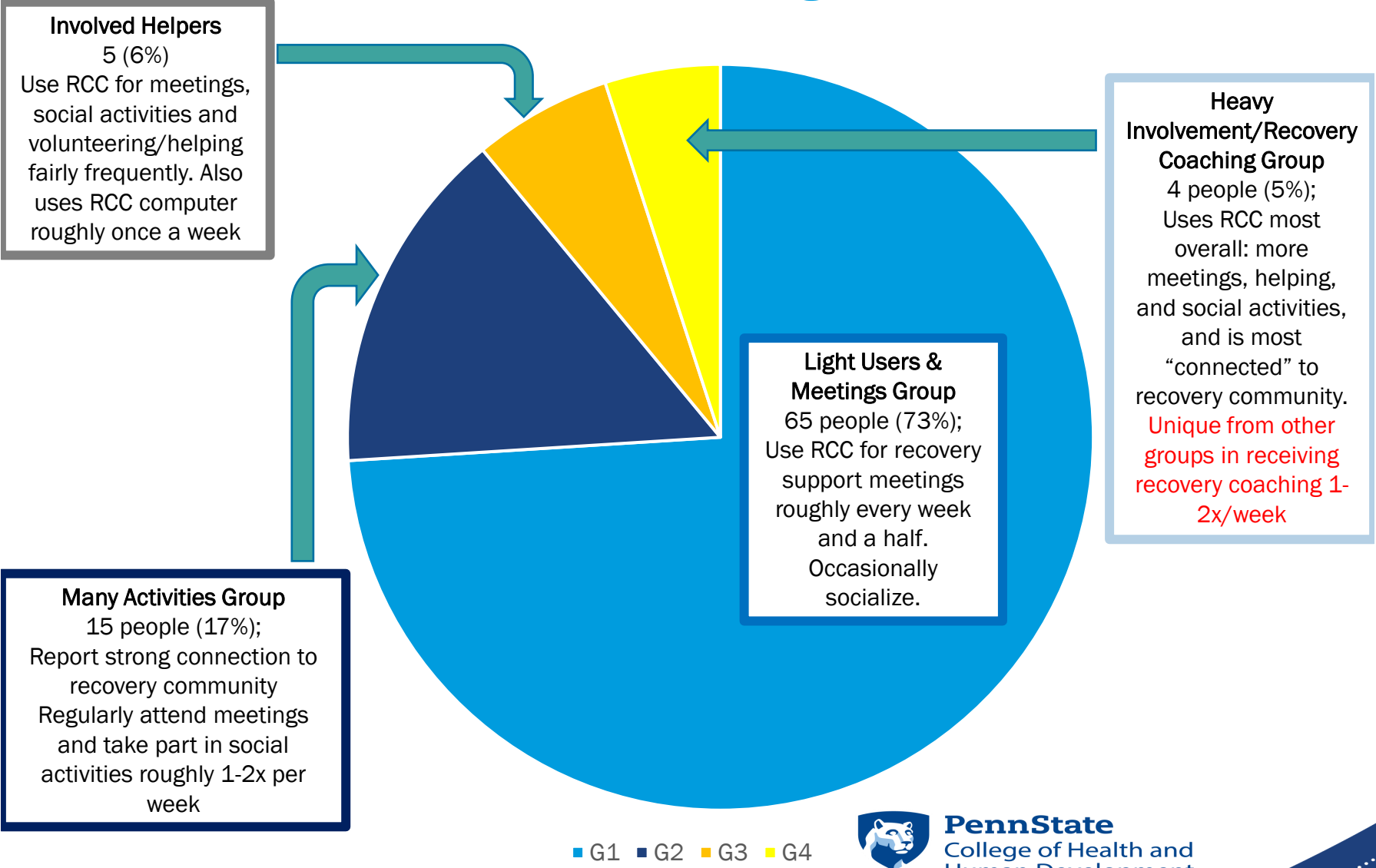
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Do RCCs support different membership groups?

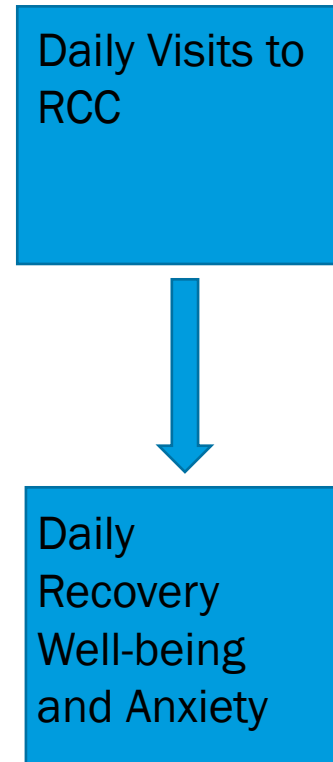


Question 3: Can going to an RCC positively impact members' recovery states?



PennState
College of Health and
Human Development

Does RCC Attendance Impact Daily Wellbeing and Anticipatory Anxiety?



Measures:

Predictor Variable

Daily RCC attendance

“Did you attend an RCC today? (Y/N)”

Outcome Variables

End-of-Day Wellbeing (alpha=.95)

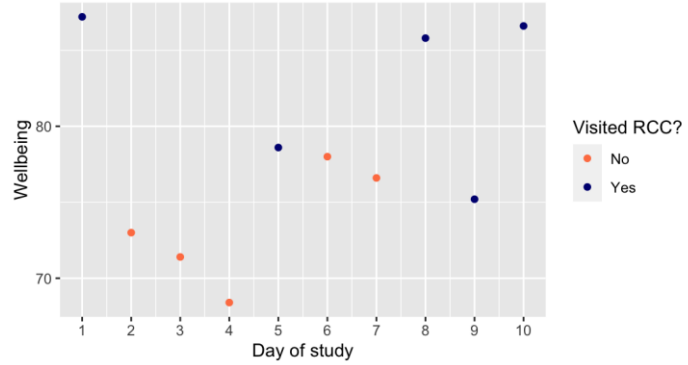
Each person’s daily average of (my day has been...) Meaningful, Gratifying, Fulfilling, Purposeful, & Satisfying (0-100)

Anticipatory Anxiety (alpha=.73)

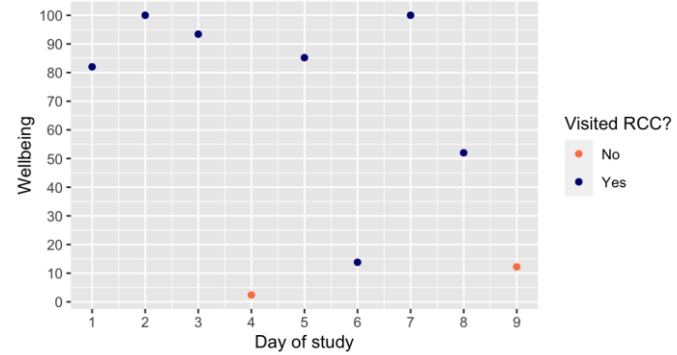
Each person’s daily average of “I think tomorrow will be . . . Stressful, Positive (R), Challenging, & Enjoyable (R) (0-100)

Four Participants' Wellbeing across RCC and non-RCC days

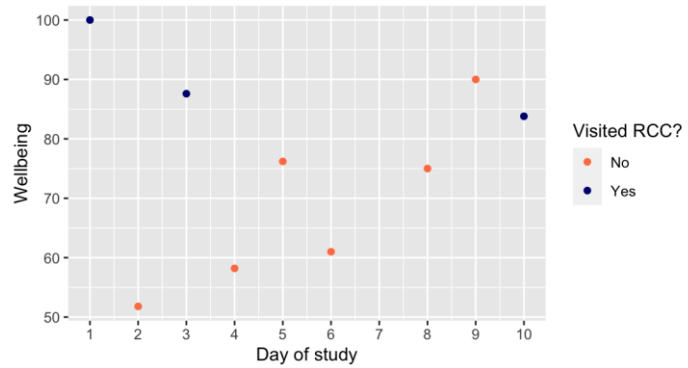
Relationship between RCC Attendance and Wellbeing across the course of the study



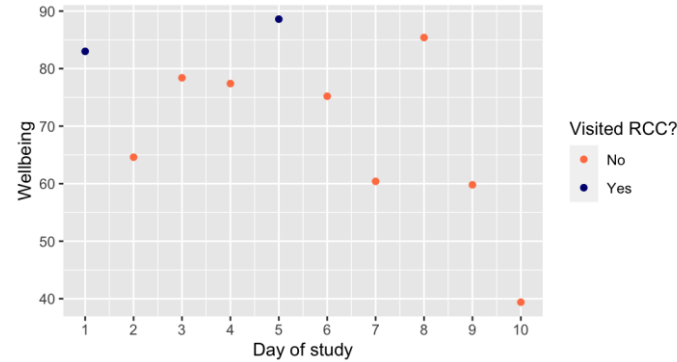
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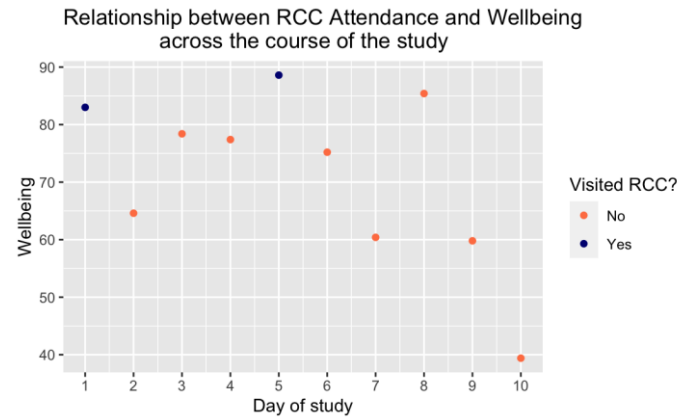
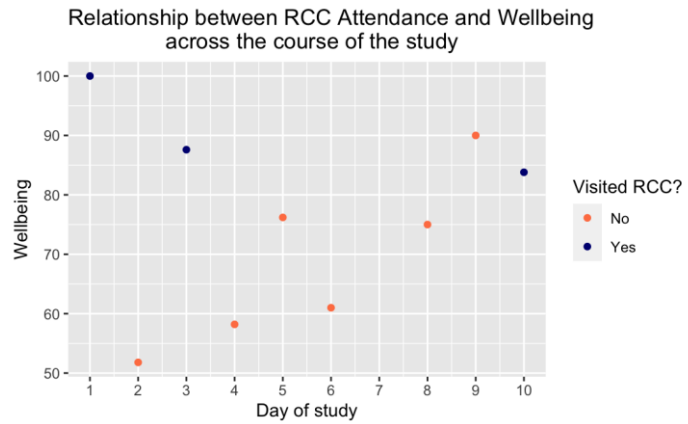
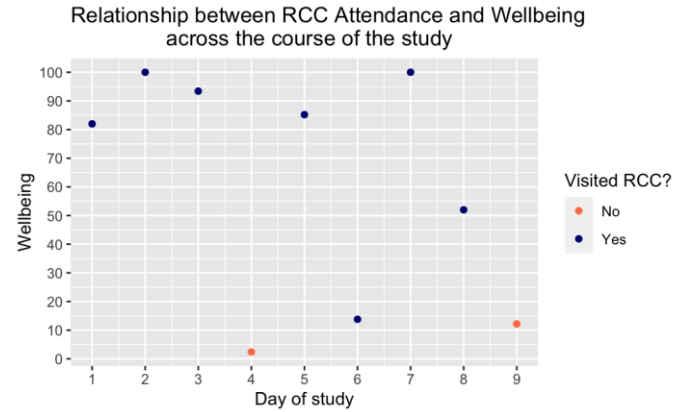
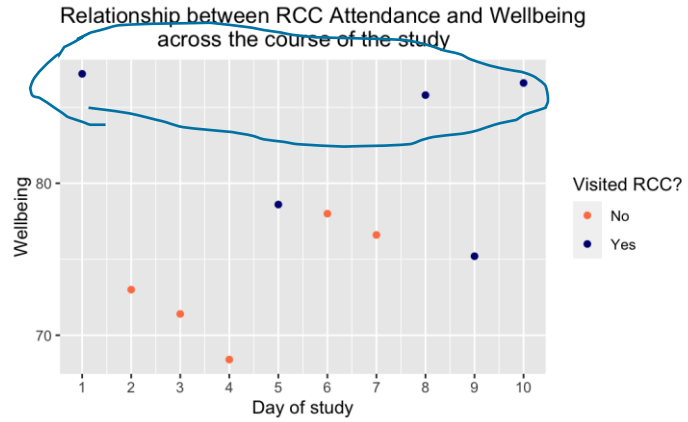
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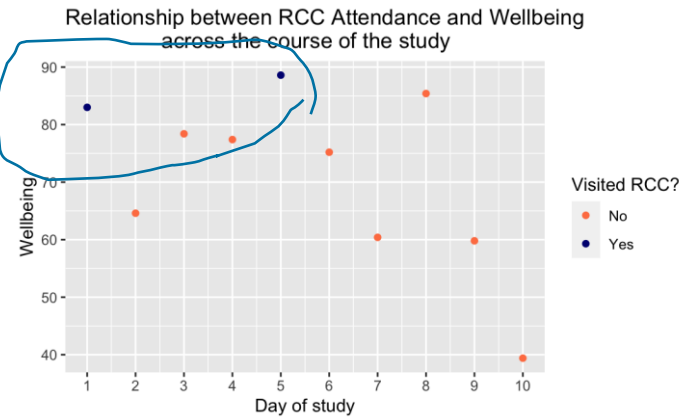
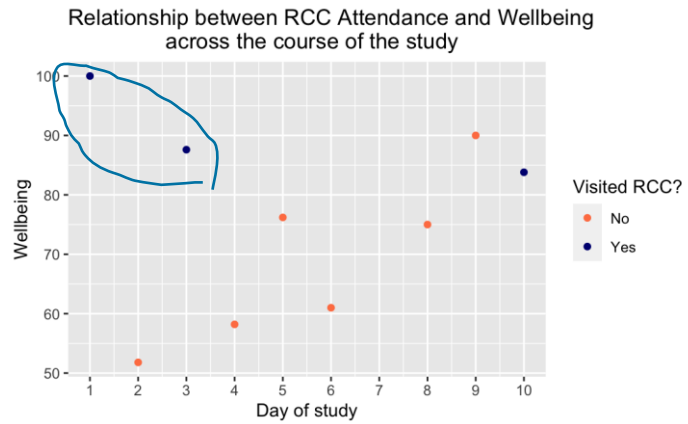
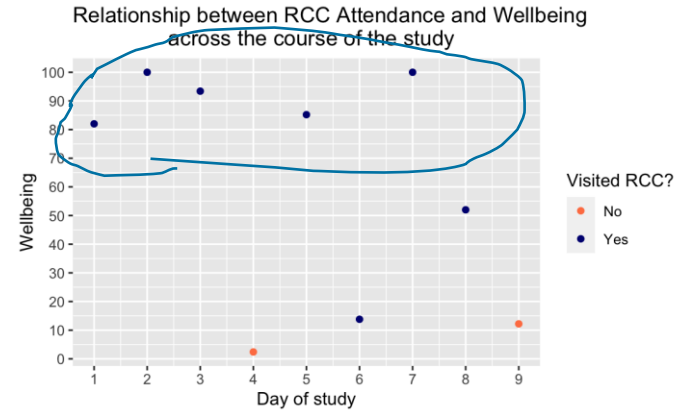
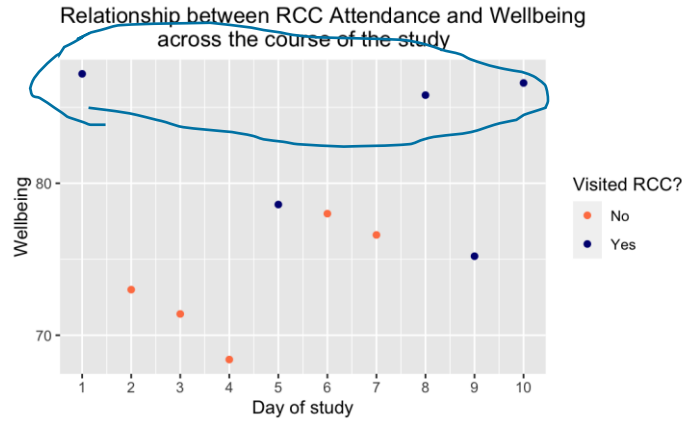
Relationship between RCC Attendance and Wellbeing across the course of the study



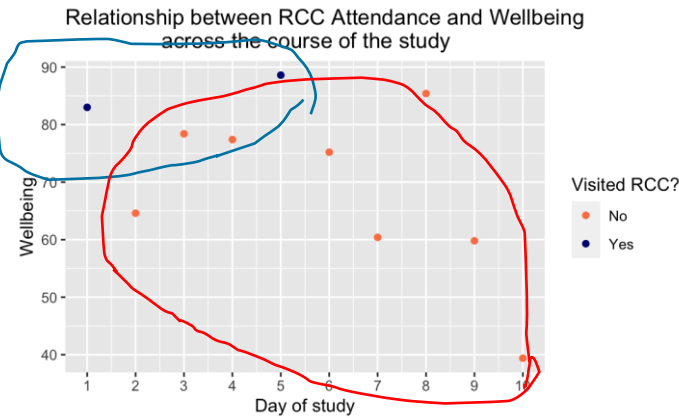
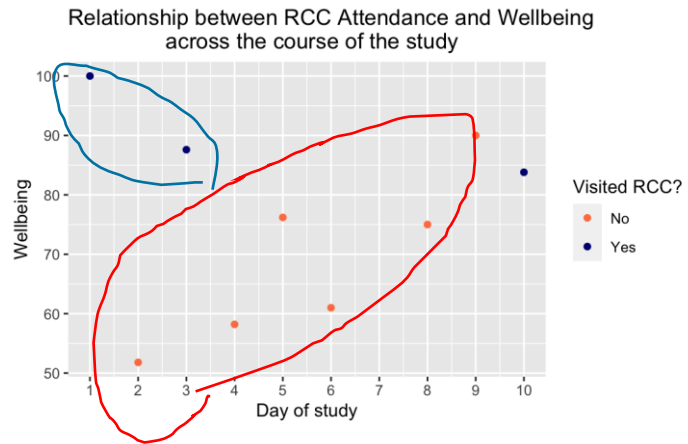
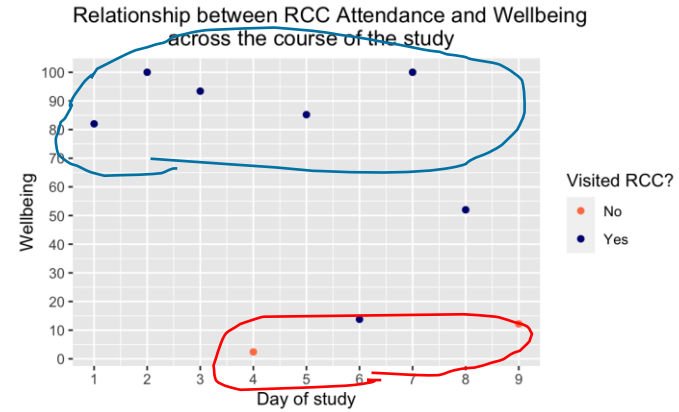
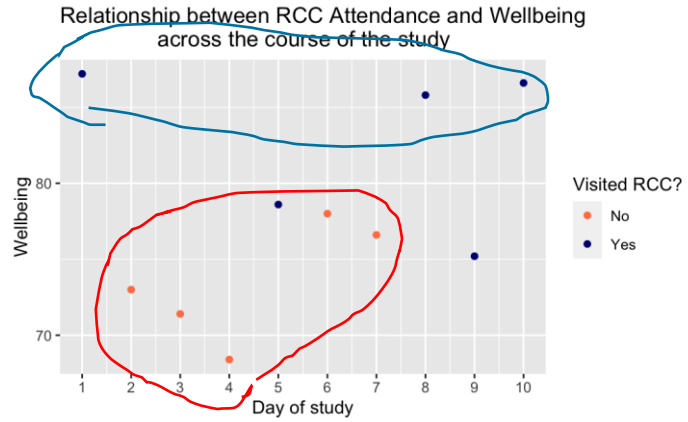
Four Participants' Wellbeing across RCC and non-RCC days



Four Participants' Wellbeing across RCC and non-RCC days



Four Participants' Wellbeing across RCC and non-RCC days



Multi-level Model Results: RCC Attendance Predicting Recovery Wellness

Well-being:

Day-level RCC attendance was *significantly* associated with wellbeing (controlling for **Person-level RCC attendance**)

$$\gamma_{10} = 4.86 (1.71)$$

Multi-level Model Results: RCC Attendance Predicting Recovery Wellness

Well-being:

Day-level RCC attendance was *significantly* associated with wellbeing (controlling for **Person-level RCC attendance**)

$$\gamma_{10} = 4.86 (1.71)$$

Anticipatory Anxiety:

Day-level RCC attendance was *significantly* associated with anticipatory anxiety (controlling for **Person-level RCC attendance**)

$$\gamma_{10} = -3.03 (1.37)$$

Summary

- We developed partnerships with Pennsylvania RCCs
- Collected data appears to be high quality
- Early findings suggest members:
 - Perceive RCCs as supportive
 - Use RCC in varying ways
 - With some members visiting for meetings and others being more engaged in more intensive services that may otherwise go unmet
- Within-person analyses demonstrate that RCC attendance is associated with both higher end-of-day well-being and lower end-of-day anticipatory anxiety

Thank You

Thank you – and see you soon!



Pilot study funding

- Letter of intent due **May 16**
- Find application materials here: <https://www.recoveryanswers.org/addiction-research-summaries/funding-for-pilot-studies/>

Upcoming Seminar

- **Title:** Community engaged research – what is it, why do we need it, and how can we do more of it in the recovery community center (RCC) space
- **Presenters:** Devin Banks, University of Missouri–St. Louis, Ashli Sheidow, Oregon Social Learning Center, Chyrell Bellamy and Rev. Robyn Anderson, Yale School of Medicine
- **RCC Live Feature:** Elizabeth Burke Beaty, CPRS, CPLC (she/her/hers), Founding Executive Director & CEO, National Sea Change Coalition
- **Date:** Friday, June 2, 2023, at 12:00 PM ET
- [Register here!](#)

