Ecological Momentary Assessment: Use Case in Middle-Aged & Older Adults with Schizophrenia

RCCN Workshop
mHealth and Digital Health Approaches to Research in Aging
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November 1, 2022
Disclosures

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Funded by NIA, NIMH, NIEHS
Agenda

• Brief introduction to EMA
• Current state of EMA research
• Major gaps in the field with opportunities for research
Ecological Momentary Assessment (EMA)

EMA helps **gain ecological validity** by surveying people as they go about their routines.
EMA sample protocol

Text/app notifications 3 times a day

Check-in Calls

Compensation

Daily Status Tracking per participant
Why use EMA for neuropsychiatric conditions?

• Patients with schizophrenia and bipolar disorder are reported to lack awareness of their symptoms
• Self reports of functioning seem to have bias, particularly when extensive recollection is required
• Estimates of abilities seem off
• Symptoms can fluctuate and patients have a hard time averaging
• Some things are impossible to remember
Functional disability in middle-aged & older adults with schizophrenia: EMA use case example
What is the biggest problem in schizophrenia?

• It’s not
  • Suicide (10-15%)
  • Hallucinations (30%)
  • Delusions (30%)

• It is
  • Disability
    • Social (65%)
    • Vocational (60-90%)
    • Residential (40-60%)
Emotional determinants of life-space through GPS & EMA in SCZ

• Looks like if you are always home you overestimate your functioning
• But if you leave home do you underestimate?
• Is it that psychosis occurs when you are alone?
• Or is it that psychosis is reported when you are alone, with a suppressive effect based on social context?
• What about leaving home?
• Is it an antecedent or consequence?

Where are the movement patterns of people with schizophrenia?

Location measured with GPS coordinates

Parrish, Depp, Moore, et al. (2020) Schizophrenia Research, 224, 67-73
Does Leaving home or returning change your moods?

![Graph showing negative emotion levels]

**Note.** HC = healthy controls; SZ = people with schizophrenia
Does Leaving home or returning change your moods?

![Graph showing changes in positive emotion]

- **Stayed Home**
- **Left Home**
- **Stayed Out**
- **Went Home**

- **HC - Happy**
- **HC - Relaxed**
- **SZ - Happy**
- **SZ - Relaxed**
And it seems particularly relevant if you are going to a clinical appointment.
Gaps in the field with opportunities for research

• Streamlined data analysis
• Real-world evidence
• Decentralized clinical trials
• Rigor and reproducibility
Acknowledgements

• Cognitive Dynamics Lab
• UCSD MHTech Center
• Research Participants
• Collaborators: Drs. Phil Harvey, Amy Pinkham, Rob Ackerman
• Trainees: Emily Paolillo, Emma Parrish, Laura Campbell
Thank you!

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