Using Peers to Increase Engagement in a Smartphone Application for Self-Management of Drinking Problems among Veterans in Primary Care:

FINDINGS FROM AN OPEN TRIAL

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Acknowledgments & Disclosures

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- Patrick Dulin (Co-I): **Owner of Here & Now Systems, LLC (developer of Step Away and Stand Down apps)**

Mobile apps for alcohol use: Promise and pitfalls

- Mobile apps can overcome barriers to care access (e.g., geographical, stigma):
  - Hazardous drinking among primary care patients (Bradley et al., 2017)

- Efficacy of mobile apps to improve drinking outcomes:
  - A-CHESS (Gustafson et al., 2014)
  - Step Away (Gonzalez & Dulin, 2015)

- Achilles' heel of mobile apps... **poor patient engagement**
  - Bertholet et al. (2019, *DAD*): Only 57% randomized to app condition downloaded it.

Using Peers to enhance app engagement?

- Peer support central to recovery from addictions (e.g., AA)

- In 2008, >1,000 **Peer Specialists** in VA behavioral health services.
  - Expansion to VA primary care teams

- Perceived feasibility and utility of using Peers to support primary care patients' engagement with mobile apps is high (Miller et al., 2019)

Study objective

Evaluate the acceptability and utility of integrating an app for self-management of drinking problems with telephone support from VA Peer Specialists.

- Step Away app repurposed for the Veteran primary care population **("Stand Down: Think Before You Drink")**

From "Step Away" to "Stand Down"
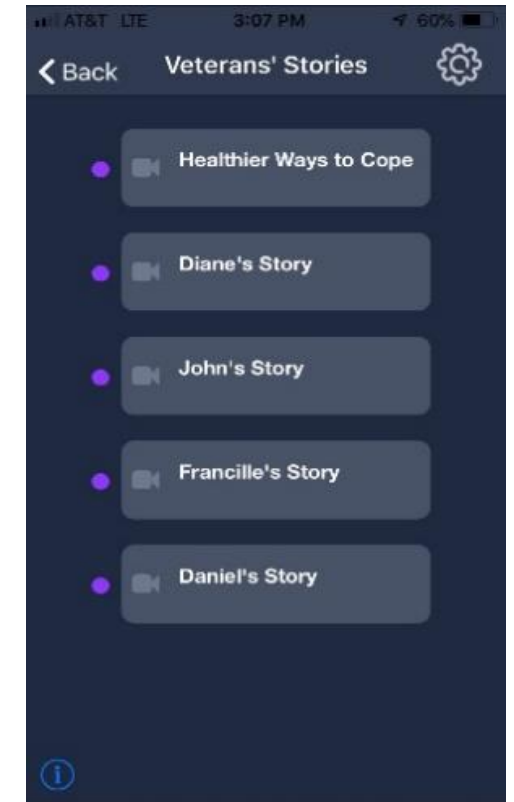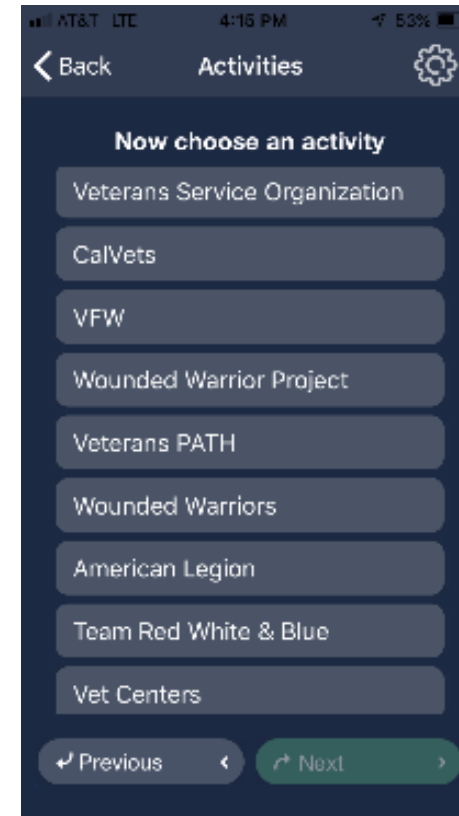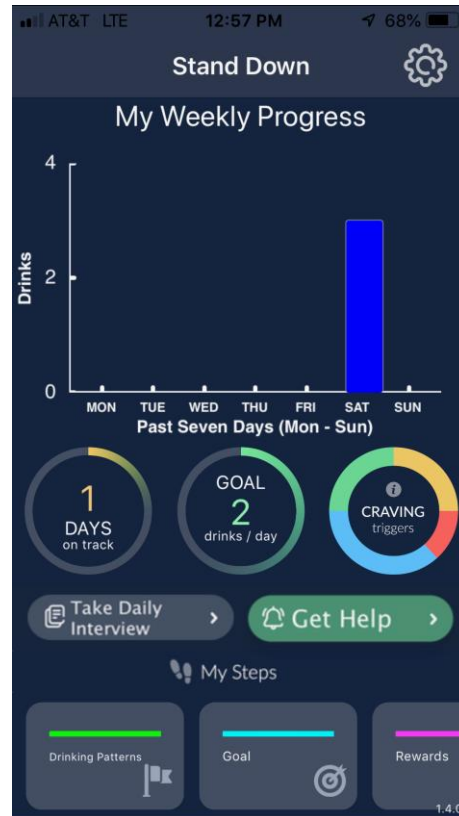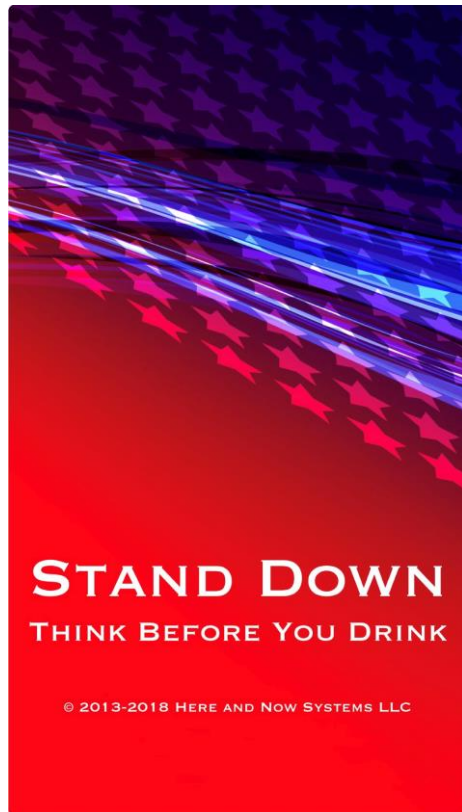
Methods: Open trial

- 31 Veteran primary care patients (29 men, 2 women) w/ positive AUDIT-C and not currently in addiction treatment:
  - AUDIT-C total score (out of 12): M=7.8 (SD=2.7)
  - AUD diagnosis (past year): 81%
  - Ever attended a mutual-help group for alcohol or drug use (39%)
  - Ever attended treatment program for alcohol or drug use (39%)

- Asked to use Stand Down app for 4 weeks and receive weekly Peer phone support ("to help you get the most out of the app"):
  - App usage data extracted daily (users' personal iPhones or study-provided iPod Touch)
  - Pre/post interviews:
    - Intervention engagement and satisfaction (Client Satisfaction Questionnaire; CSQ)
    - Changes in drinking patterns (past 30 days Timeline Follow-back; TLFB)
    - Perceptions of integrated approach (qualitative interview)
  - 29 of 31 participants (93.5%) retained.

Peer phone sessions

- Four 15-min sessions focused on enhancing app engagement:
  - Supportive accountability (Mohr et al., 2011)

- Main components (manualized):
  - Review patients' app usage.
  - Provide suggestions on how to apply app content to patients' lives, recovery goals.
  - Technical support (understanding app navigation, functionality).
  - Encouraging ongoing utilization (tailored action plans)

- Weekly supervision:
  - 4-item Fidelity Checklist: M=7.16 (SD=1.51) out of 8
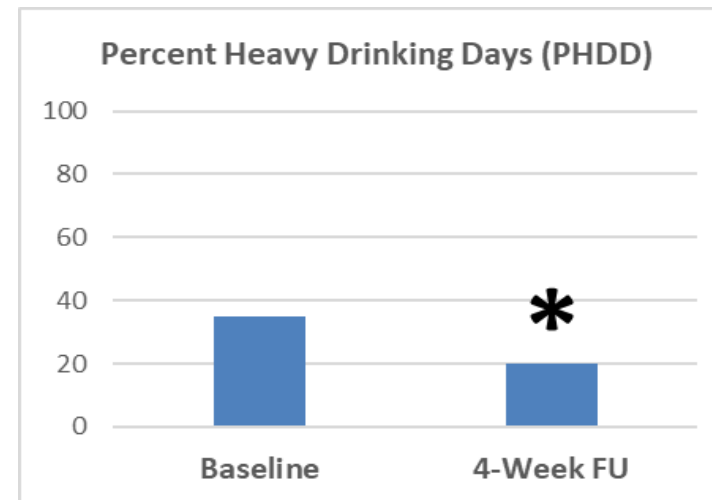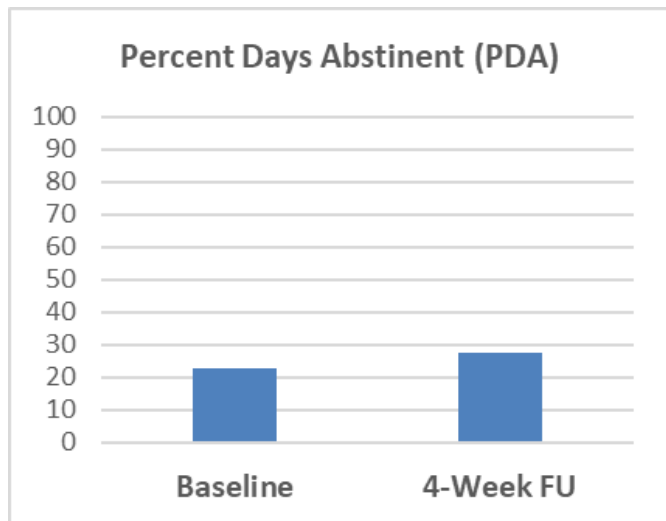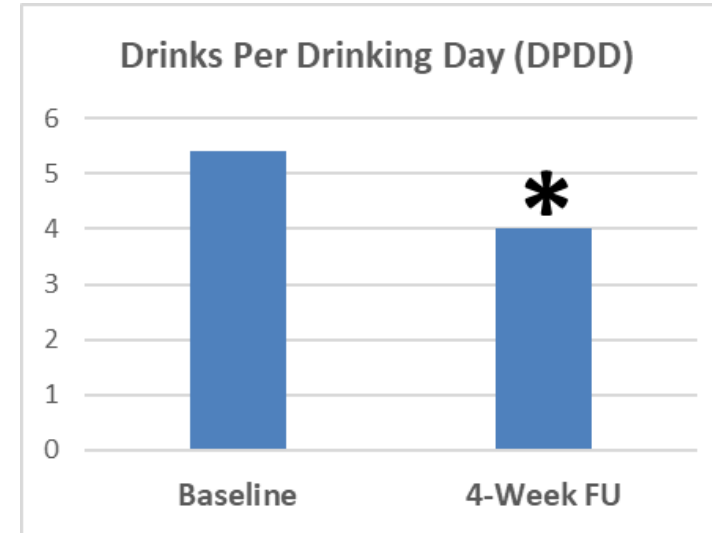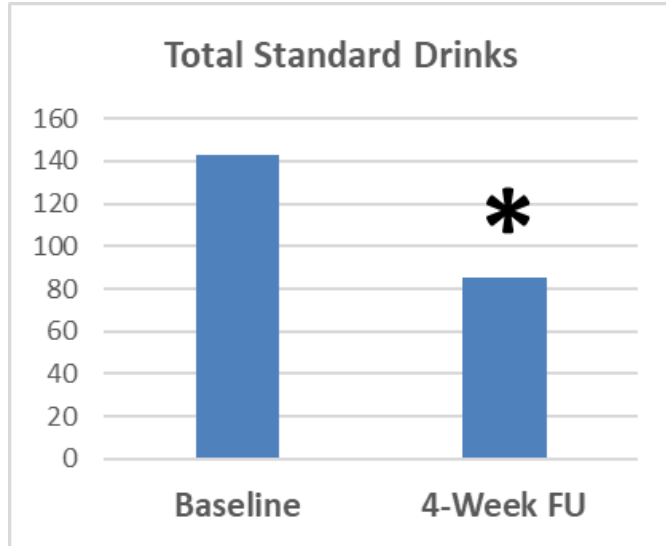
Ray et al. (2015)

Intervention engagement & satisfaction

Global satisfaction	M (SD)
CSQ Total scores (possible range = 8 to 32)	26.41 (4.5)
% with score of 24 or higher	75.9%
Flexibility of the program in meeting your needs and drinking goals (1 = not at all, 2 = a little, 3 = somewhat, 4 = very)	3.55 (0.8)

Stand Down app usage (n = 22)	M (SD)
Number of modules launched (out of 10)	5.23 (3.9)
Time spent in app (minutes)	93.89 (92.1)
Number of days app was used (out of 28)	14.05 (8.0)
Daily Interviews completed	12.64 (9.7)

Intervention engagement & satisfaction

Peer phone support	M (SD)
Sessions completed (out of 4)	2.55 (1.4)
Helpfulness of Peer support (1 = not at all, 5 = very)	--
Receiving instructions from Peer on how to use app	4.16 (1.2)
Discussing app content with Peer to help you better understand it	4.12 (1.5)
Discussing app content with Peer to help you apply it to your life	4.08 (1.5)
Reducing your drinking	4.00 (1.4)
How much did discussions with Peer help you understand and use skills taught in the app? (1 = not at all, 2 = a little, 3 = somewhat, 4 = a lot)	3.41 (1.01)

Within-person changes in drinking (Past 30 days)

Total Standard Drinks

Drinks Per Drinking Day (DPDD)

Percent Days Abstinent (PDA)

Percent Heavy Drinking Days (PHDD)

* *p* < .05

Facilitators to integrating app with Peer phone support

Themes	Sample quotations
Supportive accountability for using the app.	*"Having [the Peer] being on hand helps. Makes it easier to regulate yourself when someone else is holding you accountable."* (ID: 030)
Assistance with navigating the app and understand its functionality.	*"What was helpful were tips on how to use the app...what sections were going to be helpful for using the app to modify behavior."* (ID: 012)
Support from fellow Veteran with 'lived experience' with addiction.	*"Whenever he would give me an example of something that happened to him or a friend of his that made me feel like I wasn't really alone in my struggle."* (ID: 014)

Conclusions and next steps

- Using Peers to enhance engagement with a mobile app for drinking problems was highly acceptable to veteran primary care patients.

- Approach demonstrated utility for reducing drinking:
  - Caveat: No control condition

- Peer-supported mobile health may offer a low-cost means of enhancing access to care for patients who engage in hazardous drinking:
  - Larger trial warranted (For whom is peer support most effective?)