**Background**

**Primary Care Providers**

Family Medicine physicians treat a large number of patients with alcohol and/or other drug (AOD) problems.

(Reference?)

Screening, Brief Intervention and Referral to Treatment (SBIRT) and Motivational Interviewing (MI)

have been shown to be cost-effective with long term reductions in AOD use and health care utilization.

(Reference?)

- MI delivered as short, negotiated interviews used to motivate a patient to change his or her behavior
- Purpose of MI to provide information and feedback about AOD use, understand patient’s view of AOD use, and enhance the patient’s motivation to change

**CareText**

Inclusion Criteria: 18 years or older; owned a cell phone and regularly used text messaging; scored above cutoff on AUDIT (3 for women, 4 for men) or DAST (score of 1 or more)

**Exclusion Criteria:**

<table>
<thead>
<tr>
<th>Group</th>
<th>AUDIT score at Intake</th>
<th>AUDIT score at 3 month follow up</th>
</tr>
</thead>
<tbody>
<tr>
<td>CareText</td>
<td>12.2</td>
<td>4.2</td>
</tr>
<tr>
<td>Control</td>
<td>8.3</td>
<td>6.3</td>
</tr>
</tbody>
</table>

**Methods**

1. All patients at Five Rivers Health Center, a Federally Qualified Health Center (FQHC) in Dayton, Ohio were screened for substance abuse
   - Screening questions:
     1) How many times in past year have you had 5 or more drinks in a day?
     2) How many times in the past year have you used a recreational drug or used a prescription medication for nonmedical reasons?
   - Positive response to screening questions, patients filled out Alcohol Use Disorders Identification Test (AUDIT) and Drug Abuse Screening Test (DAST)
   - SBIRT was utilized
   - Patients were Consent
   - Randomly assigned to the Control Group or the Intervention Group
   - Intervention group received CareText messages once per week for 90 days, or until they responded “STOP” or did not respond for two weeks in a row
   - Patients received 3 messages per week, two containing a question followed by a text containing a motivational message
   - At 3 and 6 months after enrollment, all participants were contacted to follow up and completed the AUDIT and DAST over the phone.

**Results**

- n=27
- 12 randomized to intervention group – received CareText in addition to SBIRT/MI
- 15 randomized to control group – received only SBIRT/MI
- CareText had significantly younger mean age than control group
- 16 patients had drug or alcohol problem noted in EMR
- In test comparisons of AUDIT and DAST scores for CareText and control groups, there were no significant differences between AUDIT and DAST scores for the two groups at intake, 3 month follow up, or 6 month follow up
- Only one significant difference found – the change between intake and 3-month follow-up AUDIT scores was significantly greater for CareText group (t=-2.51, p=0.019)
- i.e. CareText participants showed greater decreases in AUDIT score at 3 month follow up
- A repeated ANOVA comparing AUDIT scores for both groups confirmed – a significant Group X Time interaction revealed while AUDIT for both decreased over time, CareText group had significantly greater reductions in AUDIT at 3 month follow up (F = 6.28, p = 0.019)
- Correlational analysis to measure relationship between the number of CareText responses made by participants and changes in AUDIT between intake and 3 month follow up
- Positive, significant Pearson correlation coefficient for this analysis (r = 0.608, p = 0.036)
- Indicates those who responded most had greatest AUDIT change at 3 months
- T tests found no difference between number of ED visits or visits to primary care offices between groups
- CareText group cancelled significantly more appointments than control (t = 2.26, p = 0.033)
- Because of age confound, this could be more related to age
- 1 CareText participant responded to messages for entire 12 weeks
- By week 2 – 25% had stopped responding
- By week 6 – 50% had dropped out
- Two patients (16.7%) still responding at week 10; one stopped on week 11

**Conclusions**

- Small sample size and difficult follow up made significant results difficult to distinguish
- Several participants unable to be reached at 3 and 6 month follow ups
- Those responding to CareText messages had significant changes in AUDIT scores – unclear if this due to CareText or these participants more actively involved in their care
- Participants gave feedback – some found messages to be helpful and encouraging, others found them repetitive and irksome
- Future interventions could consider a variety of motivational messages, only one message per week, or ask the patient to rate a “change scale” less often
- Patients recruited were seeking treatment for other health problems – may be more successful in a population already involved in AOD treatment and recovery