__Acceptability and Efficacy of a Brief Computerized Intervention__ ___Targeting Loneliness in Older Adults___

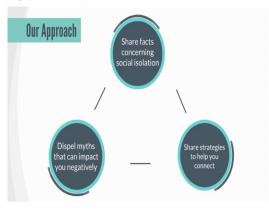Julian Kinnaird, Fredrick T. Schubert, Norman B. Schmidt

Florida State University

Background

- Estimates suggest up to 34% of the U.S. older adult population are affected by loneliness[1].
- A significant number of negative health outcomes have been associated with loneliness in older adults, including Alzheimer's disease[2], suicide related outcomes[3], poorer immune system functioning[4], and an increased risk of all-cause mortality[5].
- "Combatting Social Isolation" (CSI) was developed as a brief, web-based intervention to reduce loneliness in older adults by targeting two essential risk factors: Thwarted Belongingness (TB) and Perceived Burdensomeness (PB).
- This study tested for CSI's efficacy in reducing loneliness, as well as its acceptability among older adults.

Methods

- Participants (*N*=65, *M*(age)=72.2, *SD*(age)=5.8) were randomly assigned to one of two condition groups, where the active condition group received CSI, and the control group received a Health Educational Control (HEC) presentation.
- Participants in both conditions received weekly text message reminders for four weeks following the intervention administration.
- Participants completed pre-, post-, and 1 month- measures to test for reductions in loneliness and social disconnection across conditions.

Measures:
- Loneliness Measure: UCLA Loneliness Scale – Revised (UCLAR)[5]
- PB and TB Measure: Interpersonal Needs Questionnaire – Revised (INQR)[6]
- Acceptability Questionnaires (CEQ/ CSQ)[7,8]

Results

- Most participants found CSI to be acceptable, as 91% rated the treatment as "somewhat useful" or better in symptom reduction. 91% of participants reported that it helped them deal more effectively with their problems, and 88% rated the quality of CSI to be either good or excellent.
- A 2x3 ANOVA revealed a significant main effect of time on UCLAR loneliness, $F_{(1.460, 71.525)} = 22.678$, $p<.001$, though no significant interaction was observed between time and condition, $F_{(1.462, 71.525)} = .102$, $p=.841$ on loneliness, suggesting no significant treatment effect.
- Similarly, a significant main effect of time was observed on INQ disconnectedness, $F_{(1.363, 74.977)} = 20.573$, $p<.001$, but no significant interaction was observed between time and condition, $F_{(1.363, 74.977)} = 1.563$, $p=.219$.

Table 1. Mean PB, TB, INQR total, and UCLAR Loneliness scores across treatment conditions and timepoints.

	CSI			HET		
	N	M	SD	N	M	SD
Pre INQR Total	33	44.27	15.58	32	39.97	12.19
Post INQR Total	32	39.56	15.49	32	38.23	12.03
Month 1 INQR Total	29	33.45	11.73	28	32.68	10.03
Pre TB	33	33.21	11.26	32	31.84	11.02
Post TB	32	29.44	10.69	32	30.28	10.93
Month 1 TB	29	25.41	9.41	28	25.32	9.22
Pre PB	33	11.06	7.37	32	8.13	3.37
Post PB	32	10.13	7.25	32	7.94	3.42
Month 1 PB	29	8.03	4.64	28	7.36	2.21
Pre Loneliness	31	57.48	9.61	30	56.63	10.13
Post Loneliness	31	55.65	9.40	32	54.81	10.59
Month 1 Loneliness	29	51.69	9.58	25	50.00	9.98

Discussion

- CSI appears to be acceptable due to high favorability ratings amongst participants.
- Although we observed nonsignificant decreases in loneliness and disconnectedness between conditions over time, it may be the case that both CSI and HEC are useful in reducing these symptoms.
- Although CSI did not decrease symptoms relative to HEC over a one-month period, it is possible that the CSI intervention may decrease disconnectedness and loneliness more over a long-term follow-up period, consistent with past work.
- Future studies may investigate HEC as a tool to reduce loneliness given its apparent usefulness in reducing related symptoms .

Figure 1. Example slide from CSI

References

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