

Engaging Teenagers in Asynchronous Online Groups to Design for Stress Management

Appendix A: Activities for teenager group

Table A. An outline of weekly 20-minute online activities presented in the study, their purpose, participation, helpfulness ratings, and frequency of interactions between teens (excluding researcher interactions).

Week	Activity	Purpose	No of participating teens	Average helpfulness rating (n=20)*	Frequency of interactions in Group 1	Frequency of interactions in Group 2
1	1.1. Entry survey – stress response scale and parent adolescent communication scale 1.2. Introduction, ice breaker, share a meme on stress	1.1. Learn about baseline stress level 1.2. Icebreaker to get teens to know each other	23	3.3 (n=19)	1	21
2	React to video on physical manifestations of stress, psychoeducational video	Learn about how teens recognize stress and how it affects them.	23	3.8 (n=19)	7	7
3	Value sorting exercise, activities aligning with values and may also be stressful, and value conflicts	Learn about activities that are stressful as well as meaningful.	22	3.5 (n=20)	0	0
4	4.1. Advice column: Provide advice on scenarios of stress with fictional personas (Family, school, relationship, health, friends, social media/perceptions, self-image) 4.2. Provide feedback on others' advice	Technology ideas and eliciting what support they need from tech	22	3.6 (n=18)	5	13
5	Stress diary with structured prompts (spend 5 minutes for at least 4 days) Each day the prompt changes: write what was stressful, what measures they used to overcome it or how they wished it could have been different/ideal, photo elicitation, write a letter to stress, write a stress checklist	Scaffolding reflection. Data gathering of needs, understanding context, understanding benefits and challenges of journaling	19	3.9 (n=17)	0	0

6	Draw your support network map	Understanding types of support important to teens (logistical, companionship, informational, emotional support). Understanding whom do teens approach for support?	16	3.1 (n=15)	2	1
7	Custom diary (free writing at least 4 days of the week)	Journal about stress, more freedom in reflection	16	3.8 (n=16)	0	0
8	App feedback (gave them a list of 10 free apps) Teen try one app for 4 days and provide feedback.)	Feedback on existing features – such as mindfulness, mood tracking, positive restructuring	15	4 (n=16)	0	0
9	Teens provide feedback on storyboarded design ideas	Researchers present storyboards for feedback What support do teens expect from technology to navigate social dynamics to help with stress?	11	3.8 (n=16)	11	0
10	10.1. Teens codesign 3 ideas for stress management 10.2. Teens provide feedback on 2-3 other ideas	Eliciting design ideas from teens	15	4.4 (n=14)	12	5
	EXIT INTERVIEWS & SURVEY	Obtain feedback on the method and follow up questions on stress management.	20	NA	NA	Na
	Feedback survey on activities	Obtain feedback on utility of each online activity and suggestions to make improvements.	20	NA	NA	NA

*20 out of 23 participants completed the exit survey to provide ratings on helpfulness of activities. 1= very unhelpful, 5 = very helpful.

Optional activities

The following two activities were optional to participate in and were available from week 3 through end of the study. There was no compensation associated with these activities.

Activity	Purpose	
1. Three good things	<ul style="list-style-type: none"> To maintain a positive environment in an otherwise negative discussion on stress. 	<ul style="list-style-type: none"> 9 participants reported using this activity
2. Vent line	<ul style="list-style-type: none"> Teens can call on this phone number to vent by texting or leaving a voicemail To allow teens to vent about stressful things when they like. 	<ul style="list-style-type: none"> Only one participant used this once and rated it as very helpful

Network Analysis

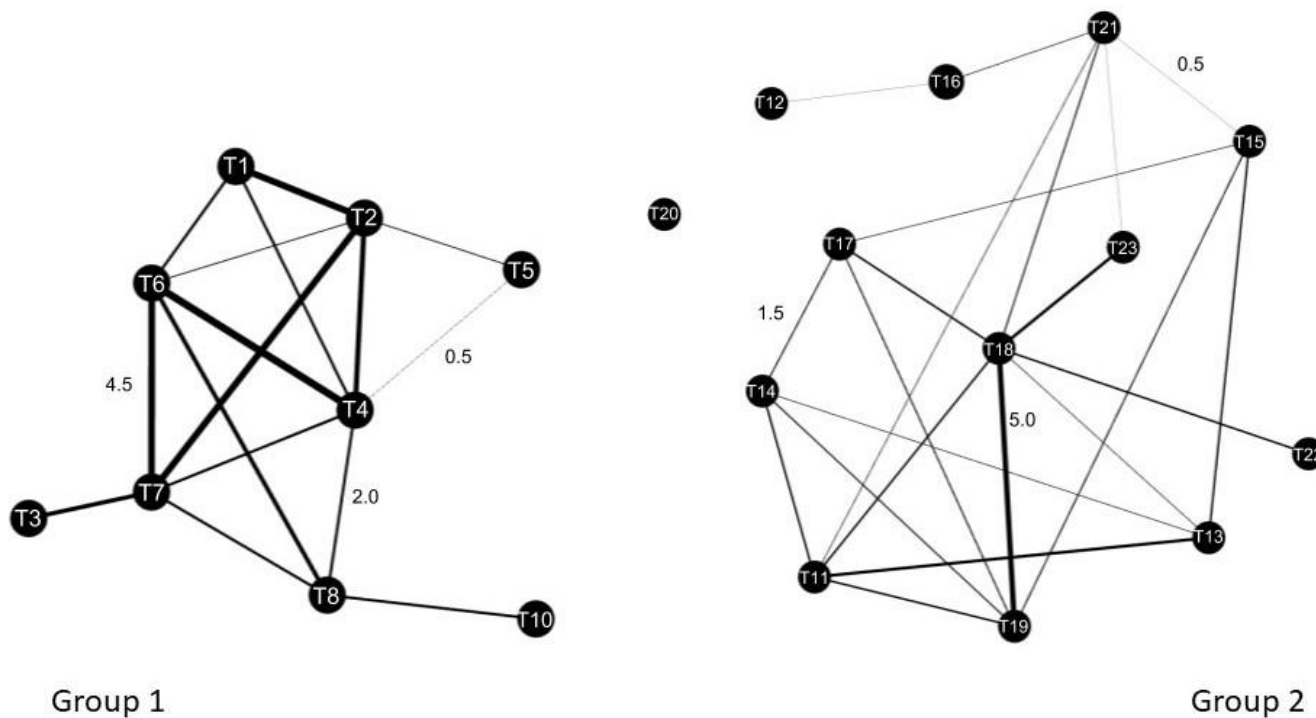


Figure A. Network analysis of responses and reactions between teen participants in Group 1 (left) and Group 2 (right). Each node is a participant, edge represents, weight of the edge represents frequency of interactions (1 point for responses, 0.5 points for reactions).