

“A great way to start the conversation”: Evidence for the Use of an Adolescent Mental Health Chatbot Navigator for Youth at Risk of HIV and other STIs

Gabriella Sanabria¹, Karah Y. Greene¹, Jennifer T. Tran¹, Shelton Gilyard¹, Lauren DiGiovanni¹, Patricia J. Emmanuel¹, Lisa J. Sanders¹, Kristin Kosyluk¹, and Jerome Galea²

¹Affiliation not available

²University of South Florida School of Social Work

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Abstract

Chatbot use is increasing for mobile health interventions on sensitive and stigmatized topics like mental health because of their anonymity and privacy. This anonymity provides acceptability to sexual and gendered minority youth (ages 16-24) at increased risk of HIV and other STIs with poor mental health due to higher levels of stigma, discrimination, and social isolation. This study evaluates the usability of Tabatha-YYC, a pilot chatbot navigator created to link these youth to mental health resources. Tabatha-YYC was developed using a Youth Advisory Board (n=7), and the final design underwent user testing (n=20) through a think-aloud protocol, semi-structured interview, and a brief survey post-exposure which included the Health Information Technology Usability Evaluation Scale. The chatbot was found to be an acceptable mental health navigator by participants. This study provides important design methodology considerations and key insights into chatbot design preferences of youth at risk of STIs seeking mental health resources.

Table I. Participant Characteristics (n=20)

Characteristics	n	(%)
Biological Sex Assigned at Birth		
Male	8	(40)
Female	12	(60)
Age Groups		
14-17 yrs	1	(5)
18-26 yrs	19	(95)
Sexual Orientation		
Gay or lesbian	4	(20)
Straight	12	(60)
Bi-sexual	4	(20)
Other	0	(0)
Race		
African American/Black	10	(50)
White	6	(30)
Asian	1	(5)

Characteristics	n	(%)
Multi-racial	1	(5)
Other	2	(10)
Ethnicity		
Hispanic	4	(20)
Non-Hispanic	16	(80)
Education		
High school graduate	5	(25)
Some college, no degree	8	(40)
Associates degree	2	(10)
Bachelor's degree	4	(20)
Currently enrolled in high school or GED program	1	(5)
Currently Receiving Mental Health Treatment		
Yes	5	(25)
No	15	(75)

Table II. Health-ITUES Scores (n=20)*

Scale	Mean	(SD)
Impact	4.3	0.8
Perceived usefulness	4.4	0.8
Perceived ease of use	4.5	0.7
User control	3.6	1.3
Overall health-ITUES score	4.3	0.9

* rating completed off a five-point Likert scale, with five being the highest or best score

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