HDPulse An Ecosystem of Health Disparities and Specific Populations Health Resources

Intervention IP-102: Efficacy of an Internet-Based Depression Intervention to Improve Rates of Treatment in Adolescent Mothers

The intervention aimed to encourage Black mothers of low SES to seek depression treatment via an internet-based intervention. The intervention included vignettes, questions and answers, and other resources. In two time points, participants answered questions about their attitude and subjective norms towards mental health treatment, perceived control, intention to seek depression evaluation and treatment, and actually receiving treatment. Only the intervention group received the intervention. The intervention led to significant changes in each of these outcomes.

Overview

Purpose of Intervention:

To test the effectiveness of an internet-based depression intervention on seeking depression treatment

Intervention Type:

Research-Tested — *Interventions with strong methodological rigor that have demonstrated short-term or long-term positive effects on one or more targeted health outcomes to improve minority health and/or health disparities through quantitative measures; Studies have a control or comparison group and are published in a peer-review journal; No pilot, demonstration or feasibility studies.*

Intervention Details

Intervention was Primarily Driven, Led, or Managed by:

Both Community and Academic/Clinical Researchers

Citations:

- Cynthia Logsdon, M., Myers, J., Rushton, J. et al. Efficacy of an Internet-based depression intervention to improve rates of treatment in adolescent mothers. Arch Womens Ment Health 21, 273–285 (2018). https://doi.org/10.1007/s00737-017-0804-z
  Relevance: Main Intervention

Adaptation of Another Research-based Intervention:

No

Contact Information

Primary Contact Affiliation:

University of Louisville

Intervention URL:

https://web.archive.org/web/20160123133716/http://kyteenmom.com/sign-up-today

Results

Intention

Improve minority health or the health of other populations with health disparities (e.g. rural populations, populations with low SES)

Intervention Primary Outcome:

Rates of depression treatment in adolescents

Intervention Secondary Outcome:

Attitude and subjective norms towards mental health treatment, perceived control, and intention to seek depression evaluation

Key Findings:

Those in the intervention group intended to seek treatment ($p=0.003$) and actually received treatment ($p=0.009$) over time when compared to the control group. Within the control group, intention to seek treatment and actual treatment rates did not change ($p=0.999$ and $p=0.081$, respectively). Both rates increased over time within the intervention group ($p=0.003$ and $p<0.001$, respectively). Scores on two of the instruments (attitude, $p=0.041$; perceived control, $p=0.007$) improved significantly more over time for the intervention group when compared to the control group, but subjective norms did not. The scores on the instruments remained consistent over time within the control group (attitude, $p=0.841$; subjective norms, $p=0.784$; perceived control, $p=0.913$), while the scores significantly improved within the intervention group ($p=0.018$, $p=0.040$, and $p<0.001$, respectively).

Statistical Method Used:

Analysis of variance (ANOVA) techniques were used to test for differences between continuous variables, while Kruskal–Wallis, Fischer’s exact tests, and Wilcoxon methods were used to test for differences among categorical variables as appropriate. Repeated measures ANOVA techniques were used to test if changes occurred over time both within groups and between groups using an adjusted approach.

Evaluations and Assessments

Were Any of the Following Assessments Conducted (Economic Evaluation, Needs Assessment, Process Evaluation)?:

Yes

- **Process Evaluation:** From the intervention group, acceptability ratings of the intervention were as follows: The website is easy to use n =124 (80.8%); an internet website is a good place for me to learn about depression n=108 (70.2%); I can relate to one or more of the stories presented on the homepage n=76 (49.2%); I would recommend this website to another teen mom n=110 (71.5%).

Demographic and Implementation Description

Diseases, Disorders, or Conditions:

Depression, Women's Health and Pregnancy

Race/Ethnicity:

African American or Black, White

Populations with Health Disparities:

People with Lower Socioeconomic Status (SES), Racial and Ethnic Minority Populations, Underserved Rural Communities

Age:

Adolescents (10 - 17 years), Young Adults (18 - 39 years)

Socio-demographics / Population Characteristics

Community Type:

Rural, Suburban, Urban / Inner City

Other Populations with Health Disparities:

Unspecified

Geographic Location:

Kentucky

Socio-Economic Status:

Low SES

Research Framework

		Levels of Influence			
		Individual	Interpersonal	Community	Societal
Determinant Types	Biological				
	Behavioral	✔			
	Physical / Built Environment				
	Sociocultural Environment				
	Health Care System	✔			

Community Involvement

The community's role in different areas of the Intervention (Choices are "No Role", "Participation", and "Leadership"):

Design:

Participation

Dissemination:

Participation

Evaluation:

Participation

Implementation:

Participation

Outreach:

Participation

Planning :

Participation

Recruitment:

Participation

Sustainability:

No Role

Characteristics and Implementation

Intervention Focus Area:

Behavior Change

Disease Continuum:

Secondary Prevention

Delivery Setting:

Clinic / Health Care Facility, Data for the control group was collected in health care clinics and in home visits. The intervention group used a computer of their choice, which was often located in schools and health care facilities., Schools / Colleges

Mode of Delivery:

Online/e-Health

Who delivered the Intervention?:

N/A

Conceptual Framework

Intervention Theory:

Theory of Reasoned Action / Planned Behavior

Intervention Framework:

None

Implementation

Intervention Study Design:

Quasi-Experimental (does not require random assignment, but requires a comparison/control group with pre and post intervention outcome assessments)

Targeted Intervention Sample Size:

300

Actual Intervention Sample Size:

292

Start Year:

2013

End Year:

2016

Intervention Exposures

Duration of Intervention/How Long it Lasted:

Less than 1 month

Frequency of Intervention Delivery:

Twice

Number of Sessions/Meetings/Visits/Interactions:

1-2 Sessions

Average Length of Each Session/Meeting/Visit/Interaction:

1-2 Hours

Format of Delivery:

Individual

Highest Reading Level of Intervention Materials Provided to Participants:

Grade 4-5

Impact, Lessons, Components

Produced an impact or change beyond the primary or secondary outcome:

Yes

Attitude (p=0.041) and perceived control (p=0.007) improved significantly more over time for the intervention group when compared to the control group, but subjective norms did not. Dose of the intervention (measured in time spent on the intervention) significantly impacted (increased) attitudes (B=2.00, p=0.029). Being depressed (OR=2.15, 95% CI 1.15–4.04, p=0.005) and exposed to the intervention (OR=1.65, 95% CI 1.06–2.32, p=0.012) increased the odds of seeking treatment.

Essential Aspects for Success:

Adequate computer capabilities to support the intervention were critical to success. With the use of other technologies, the availability of adequate cell or wireless service is foundational to success.

Lessons Learned

Key Lessons Learned and/or Things That Could be Changed or Done Differently:

Collaboration and relationships with community leaders are instrumental for meaningful clinical interventions. As technology evolves, it’s important to deliver interventions using the same technology that the population already uses and is interested in.

Insights Gained During Implementation

Insight Category	Insight Description
Cost of Implementing or Sustaining	The intervention was inexpensive to deliver.
Logistics	It was necessary for investigators to be on site for delivery of intervention, but this will not be the case as technology evolves.
Staffing	Adequate staffing is needed on site for questionnaire administration. This is true for both intervention and control groups, with manualized training to support both groups.

Intervention Components

Intervention Has Multiple Components:

Yes

Assessed Each Unique Contribution:

No

Products, Materials, and Funding

Expertise, Partnerships, and Funding Sources

	Used for Implementation	Needed for Sustainability
Expertise		
Community mobilization, community organization/coalition building	Yes	Unknown
Partnerships		
Government agencies (city/state/county health department, law enforcement/criminal justice agencies)	Yes	Unknown
Funding Sources		
Public funding (e.g., federal, state or local government)	Yes	Yes
Public funding (e.g., federal, state or local government)	Yes	No

Product/Material/Tools

	Tailored For Language	Language(s) if other than English	Material
Outreach/Recruitment Tools			
Informed Consent Form	No		N/A
Participant Educational Tools			
Description of instruments	No		Attachment available for request at the bottom of the page.
Measurement Tools			
Standardized Instrument/Measures	No		Attachment available for request at the bottom of the page.

Implementation Materials and Products

	Material
Implementation/Delivery Materials	
No Implementation/Delivery Materials provided.	
Implementation/Output Materials	
No Implementation/Output Materials provided.	

Articles Related to Submitted Intervention

	Article
Reports/Monographs	
No Reports/Monographs provided.	
Additional Articles	
No Additional Articles provided.	

Materials Available for Request

- Instruments 12-13-23.docx
- Instruments 12-13-23.docx
- Instruments 12-13-23 (2).docx