Evaluation of Electronic Peer Navigation to Prevent Engagement Failure for Youth with HIV in Kenya

00991

Lisa L. Abuogi[1], Lina M. Montoya [2], Edwin Nyagesoa [3], Jayne Lewis-Kulzer [4], Evelyne Nyandieka [3], Gladys Ontuga, Isaya Opondo [3], James Nyanga [3], Eliud Akama [3], Harriet F. Adhiambo [3], Thomas A. Odeny [3,5], Elizabeth A. Bukusi [3], Elvin Geng [5]
[1]University of Colorado St. Anschutz Medical Campus, Aurora, CO, USA, [2]University of North Carolina at Chapel Hill, NC, USA, [3]Kenya Medical Research Institute, Nairobi, Kenya, [4]University of California, San Francisco, CA, USA,
[5]Washington University, St. Louis, MO, USA

BACKGROUND

- Adolescents and Young Adults with HIV (AYAH) have lower rates of virological suppression and HIV care engagement compared to adults.
- In-person support services for AYAH are limited by lifestyle demands, HIV stigma, and available resources.
- Peer support through mobile phone sessions and messaging is a novel approach that may support AYAH engagement in care and treatment success.
- *We hypothesized that electronic navigation (eNAV) strategies for increased psychosocial support and problem solving will reduce HIV care engagement failures for AYAH.*

In comparison to standard of care, electronic peer support strategies show a non-significant reduction in engagement failure for Adolescents and Young Adults with HIV.

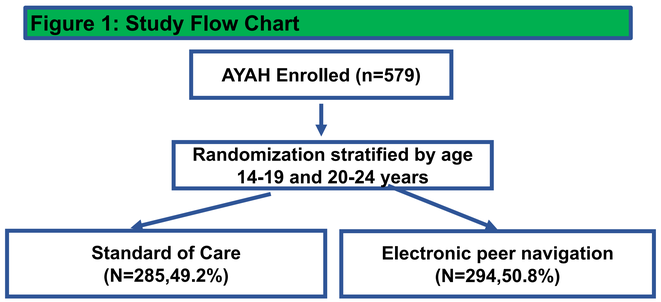


https://www.istockphoto.com/photo/modern-kenyan-girls-with-mobile-nairobi-kenya-africa-gm1043491196-279313262?phrase=kenya+adolescents+&searchscope=image%2Cfilm

METHODS

- AYAH participants (age 14-24 years) from three government facilities in Kisumu County, Kenya were enrolled from April 2021 to March 2022 (Figure 1)
- AYAH randomized to eNAV received peer support by phone combined with biweekly automated text messages delivered by trained peer navigator youth with HIV
- Primary outcome of AYAH engagement failure at one year defined as:
  1. missed clinic visit (at least 14 days late for a scheduled visit) *or*
  2. viral failure (viral load > 200 copies/ml) *or*
  3. Death
- Targeted maximum likelihood estimation was used to estimate effect of eNAV versus standard of care.

Figure 1: Study Flow Chart



RESULTS

- 403 (69.6%) were female and median age was 20 years (interquartile range 17-23).
- Distribution of sex, age, WHO stage, study site, and school attendance by arm is shown (Table 1).
- **75 (26.3%) AYAH experienced engagement failure in eNAV versus 93 (31.6%) AYAH in SOC.**
- **Estimated risk difference of -5.18% (95% CI -12.54%, 2.19%, p=0.1684).**
- Risk difference adjusted for baseline sex, age, WHO stage, alcohol use, and school attendance was also non-significant.

Table 1: Characteristics of AYAH randomized to electronic navigation versus standard of care in the Adapt for Adolescents trial (N=579).

	Electronic Navigation N=285	Standard of Care N=294
Age (mean (Standard Deviation))	19.78 (3.2)	19.92 (3.1)
Sex		
Female N(%)	196 (68.8)	207 (70.4)
WHO Stage N(%)		
Stage 1	164 (57.5)	145 (49.3)
Stage 2	69 (24.2)	92 (31.3)
Stage 3 & 4	52 (18.3)	57 (19.4)
Alcohol Use		
Problematic Use N(%)	10 (3.5)	9 (3.1)
Pregnancy N(%)		
Female pregnant	22 (7.7)	16 (5.4)
Female not pregnant	159 (55.8)	183 (62.2)
Male	89 (31.2)	87 (29.6)
Not Applicable	15 (5.3)	8 (2.7)
Facility N(%)		
Lumumba Health Centre	93 (32.6)	97 (33.0)
Ahero County Hospital	88 (30.9)	91 (31.0)
Kisumu County Hospital	104 (36.5)	106 (36.1)
Currently in School		
No N(%)	150 (52.6)	144 (49.0)

Clinical Trial Number: NCT04432571

CONCLUSIONS

- AYAH demonstrate high levels of engagement failure.
- Engagement failure is reduced, but not statistically significantly, through electronic navigation.
- Peer support to increase treatment success may require more intensive in-person interactions, despite the reach and flexibility provided by electronic approaches.

ADDITIONAL KEY INFORMATION

Author Contact Information: lisa.abuogi@cuanschutz.edu

Acknowledgements: The authors thank the study and facility staff and participants, Director KEMRI, and HIV implementing partner the Center for International Health, Education and Biosecurity (CIHEB), University of Maryland for their support of this research.

Funding: This research was supported by the U.S. National Institute or Nursing Research, National Institutes of Health under grant number: R01NR018801 The content is solely the responsibility of the authors and do not necessarily represent the official views of the NIH.