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Development and Fidelity Testing of a Brief Suicide Prevention Intervention for People Living with HIV in Kilimanjaro, Tanzania

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Projected Leading Causes of Burden of Disease

2030

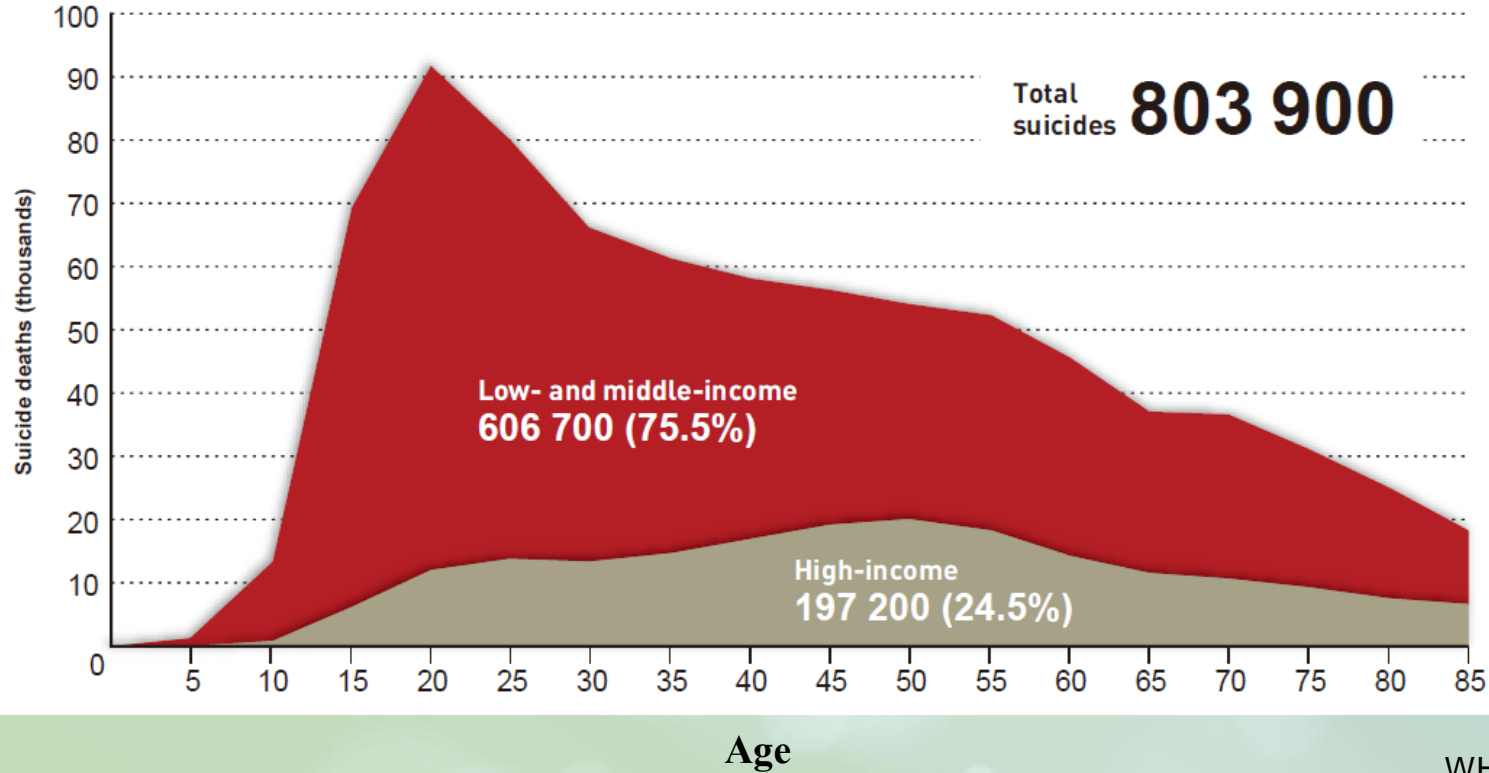


- 1. DEPRESSION**
2. Heart disease
3. Road traffic accidents
4. Cerebrovascular disease
5. COPD
6. Lower respiratory infections
7. Hearing loss
8. Common vision problems
9. HIV/AIDS
10. Diabetes mellitus





Figure 2. Global suicides by age and income level of country, 2012





The Overlap of Depression and HIV

- The WHO estimates that in Tanzania, 3000-3500 people die by suicide each year.
- Globally, people living with HIV (PLWH) are more than twice as likely to die by suicide than the general population, making suicide a leading cause of death among PLWH.
- In a study of 100 people who died by suicide in Dar es Salaam, 26 were PLWH (26%) despite adult prevalence of HIV about 10% in Dar at the time.

Summary: Depression and suicidal thinking have a disproportionate impact on people living with HIV





Need for More Trained Counselors

- In Tanzania, **55 psychologists and psychiatrists** provide mental health care for a population of over 60 million people (WHO, 2020)
- How do we fill the mental health gap in HIV care?
 - HIV Nurses?
 - Community Health Workers?
 - Mental Health Workers?
- A **structured telehealth intervention** can maximize existing resources and support training of new mental health workers





Addressing suicidal **I**deation and **D**epression

through HIV **E**ducation and counseling,
advancing ART **A**dherence, and
reducing **S**tigma
for

HOPE and resilience among
people living with HIV





IDEAS for Hope

3-Session, nurse-led telehealth counseling intervention

Primary Outcomes

1. Reductions in suicidality
 - Thoughts, plan, intent, preparatory behavior (e.g., writing a note or gathering materials), attempt
2. Improved HIV care engagement
 - Medication adherence, clinic attendance, viral load





Telehealth Component



HIV clinic nurses administer universal 3-question screening at routine HIV appointments



Those who screen positive for suicidal ideation meet with research assistant in a private clinic office



Research assistant helps connect to counselor at KCMC using a video call on WhatsApp for counseling session



“Four Pillars” Intervention Model



Session Structure

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Session 1 – 60 Minutes

- HIV and Mental Health Journey
- Introduction to Four Pillars, Values, Problem-Solving
- HIV Education
- Motivational Interviewing-Enhanced Safety Planning

Session 2 – 60 Minutes

- Stigma Reduction Through Storytelling
- Build Commitment to Change and Recover
- Problem-Solving Framework

Session 3 – 20 Minutes

- Action Plan for Utilizing Safety Plan
- Action Plan for Problem-Solving
- Review, Commitment, and “Graduation”

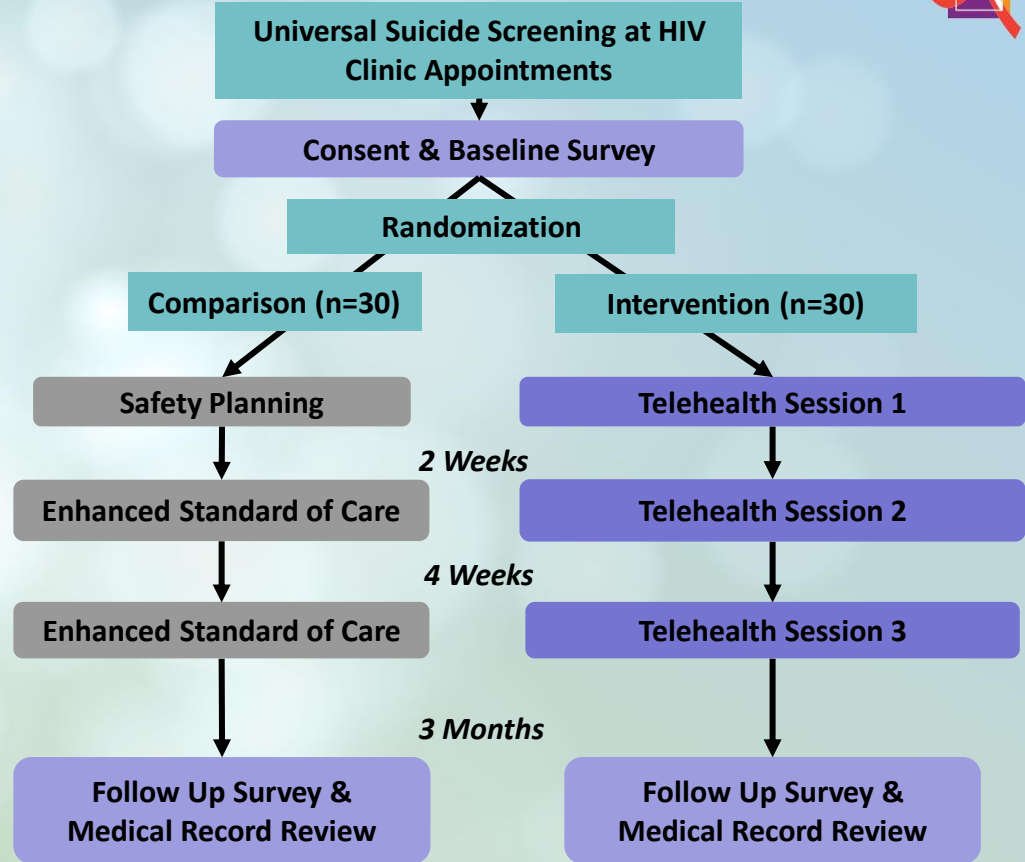


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Pilot Clinical Trial

- Started May 2023, completed in December 2023
- N=60 people living with HIV and experiencing suicidal ideation enrolled
- 2.8% of 2161 screened





Fidelity and Acceptability Methods

- Two mental health providers rated counseling quality, fidelity, and skills of 16 sessions to evaluate fidelity using adapted Enhancing Assessment of Common Therapeutic Factors (ENACT) rating scale
- 3-month follow-up survey assessed satisfaction with the study (“If I had the chance I would take part in this study again”), counselor (“I liked the counselor who I met with”), and helpfulness (“The counseling helped me to manage and reduce thoughts of suicide”)
- Pre-established threshold: mean rating of 3.0 out of 4.0
- Additional items on number of sessions and length of sessions

Kohrt et al., 2015

Study Participants

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Characteristic	Total (N=60)	Intervention (n=30)	Comparison (n=30)
Age in Years, M (SD)	43.25 (11.36)	43.83 (11.86)	42.67 (10.99)
Gender, n (%)			
Women	47 (78%)	23 (77%)	24 (80%)
Men	13 (22%)	7 (23%)	6 (20%)
Distance to Clinic in Kilometers, median (IQR)	4.00 (9.00)	4.00 (13.00)	5.00 (6.00)
Religion, n (%)			
Christian	44 (73%)	21 (70%)	23 (77%)
Muslim	16 (27%)	9 (30%)	7 (23%)
Education, n (%)			
Primary or Less	41 (68%)	22 (73%)	19 (63%)
Secondary or Higher	19 (32%)	8 (27%)	11 (37%)
Relationship Status, n (%)			
Married/Relationship	18 (30%)	7 (23%)	11 (37%)
Single	18 (30%)	8 (27%)	10 (33%)
Separated/Divorced	15 (25%)	10 (33%)	5 (17%)
Widowed	9 (15%)	5 (17%)	4 (13%)
Years from HIV Diagnosis, M (SD)	11.89 (9.95)	10.83 (7.85)	12.95 (11.73)

Preliminary Efficacy

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	Intervention (n=30)		Comparison (n=30)		p	Effect Size
	Baseline	3-Month	Baseline	3-Month		
HIV Adherence Challenges, n (%)					.759	OR = 0.76
Yes	8 (27%)	3 (10%)	5 (17%)	3 (10%)		
No	22 (73%)	27 (90%)	25 (83%)	27 (90%)		
Adherence Category, n (%)					.760	Cramer's V = 0.18
Maintained Adherence	-	21 (70%)	-	23 (77%)		
Newly Adherent	-	5 (17%)	-	4 (13%)		
Newly Non-Adherent	-	1 (3%)	-	2 (7%)		
Continued Non-Adherence	-	2 (7%)	-	1 (3%)		
Died	-	1 (3%)	-	0 (0%)		
Suicidal Thoughts, n (%)					.617	Cramer's V = 0.07
Yes	30 (100%)*	4 (13%)	30 (100%)*	3 (10%)		
No	0 (0%)*	26 (87%)	0 (0%)*	27 (90%)		
Suicide Plan, n (%)					**	
Yes	5 (17%)	0 (0%)	7 (23%)	0 (0%)		
No	25 (83%)	30 (100%)	23 (77%)	30 (100%)		
Suicidal Intent, n (%)					**	
Yes	10 (33%)	0 (0%)	13 (43%)	0 (0%)		
No	20 (67%)	30 (100%)	17 (57%)	30 (100%)		
Preparatory Behavior, n (%)					**	
Yes	7 (23%)	0 (0%)	5 (17%)	0 (0%)		
No	23 (77%)	30 (100%)	25 (83%)	30 (100%)		
Suicide Attempt, n (%)					**	
Yes	3 (10%)	0 (0%)	3 (10%)	0 (0%)		
No	27 (90%)	30 (100%)	27 (90%)	30 (100%)		

Findings

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Variable	Total	Intervention Condition	Comparison Condition
Fidelity			
Completion of Intervention, M (SD)	3.38 (.411)	3.36 (.476)	3.44 (.094)
Quality of Intervention, M (SD)	3.42 (.355)	3.39 (.396)	3.51 (.193)
Quality of Counseling Skills, M (SD)	3.63 (.271)	3.58 (.270)	3.77 (.257)
Acceptability			
Satisfaction with Study, M (SD)	3.61 (.341)	3.65 (.321)	3.58 (.360)
Satisfaction with Counselor, M (SD)	3.65 (.397)	3.70 (.393)	3.60 (.403)
Helpfulness, M (SD)			
Counseling Was Useful to Me	3.55 (.502)	3.68 (.476)	3.43 (.504)
Reduce Thoughts of Suicide	3.62 (.557)	3.61 (.567)	3.63 (.556)
Motivated to Attend HIV Clinic	3.48 (.538)	3.54 (.508)	3.43 (.568)
Motivated to Take HIV Medication	3.59 (.497)	3.64 (.488)	3.53 (.507)
Educated About HIV, Treatment	3.53 (.503)	3.61 (.497)	3.47 (.507)
Hopeful About the Future	3.62 (.524)	3.54 (.576)	3.70 (.466)
Cope with HIV Stigma	3.10 (.667)	3.32 (.670)	2.90 (.607)
Length of Sessions, n (%)			
Too Short	4 (7%)	1 (4%)	3 (10%)
Too Long	4 (7%)	0 (0%)	4 (13%)
The Right Amount	50 (86%)	27 (96%)	23 (77%)
Number of Sessions, n (%)			
Too Few	9 (16%)	1 (4%)	8 (27%)
Too Many	7 (12%)	3 (11%)	4 (13%)
The Right Amount	42 (72%)	24 (86%)	18 (60%)

Acknowledgements

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Thank You!



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