STUDY PROTOCOL | Article in Press

Conversational themes and interaction patterns in peer support for adolescents and young people living with HIV: scoping review protocol

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Abstract

Background Peer support for adolescents and young people living with HIV (AYPLHIV) has demonstrated effectiveness in improving clinical and psychosocial outcomes. However, the specific conversational content and interaction patterns that underpin successful peer support remain poorly characterized, limiting the evidence base for designing digital health tools and training curricula. This scoping review aims to systematically map the breadth and nature of documented conversational themes, topics, and interaction patterns in peer support programs for AYPLHIV aged 15–24 years.

Methods The review will follow the JBI methodology for scoping reviews. Databases to be searched include MEDLINE via PubMed, EMBASE.com, Web of Science Core Collection, CINAHL, and PsycINFO. Sources will include qualitative studies, mixed-methods studies, process evaluations, training curricula, and program guidelines that describe or document the content of peer support conversations for AYPLHIV. No restrictions will be placed on geographic location, setting, or modality. The review will include literature published from 2015 to the present. Seven independent reviewers will screen titles/abstracts and full texts using Covidence. Data will be extracted using a standardized form and synthesized through descriptive mapping, inductive thematic development, and alignment analysis comparing intentional (curricula-based) and experiential (empirically observed) content.

Discussion This scoping review will produce a map of conversational themes, topics, and interaction patterns documented in peer support for AYPLHIV globally. Findings will provide an evidence-based content framework for organizations revising peer support training and for developers designing digital tools such as chatbots and online peer communities for this population.

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Abbreviations

AIDS	Acquired immunodeficiency syndrome
ART	Antiretroviral therapy

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AYPLHIV	Adolescents and young people living with HIV
CINAHL	Cumulative Index to Nursing and Allied Health Literature
EGPAF	Elizabeth Glaser Pediatric AIDS Foundation
EMBASE	Excerpta Medica Database
HIC	High-income country
HIV	Human immunodeficiency virus
JBI	Joanna Briggs Institute
LIC	Low-income country
LMIC	Lower-middle-income country
MEDLINE	Medical Literature Analysis and Retrieval System Online
mHealth	Mobile Health
MGH	Massachusetts General Hospital
OSF	Open Science Framework
PCC	Population, Concept, Context
PEPFAR	(US) President's Emergency Plan for AIDS Relief
PRISMA-ScR	Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews
PsycINFO	Psychological Information Database
SMS	Short Message Service
UMIC	Upper-middle-income country
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

Background

Adolescents and young people living with HIV (AYPLHIV) face unique psychosocial and clinical challenges including treatment adherence, disclosure decisions, stigma, and development of healthy sexual relationships. Peer support, which involves connecting AYPLHIV with trained peers who share lived experiences, has demonstrated effectiveness in improving antiretroviral therapy (ART) adherence, retention in care, and psychosocial well-being [1–3].

Whereas existing reviews and studies have examined peer support outcomes, implementation barriers, and the experiences of peer support providers and recipients [2–5], the specific conversational content and themes responsible for these positive outcomes remain underexplored. Only one previous study identified by the authors analyzed online peer support conversations identifying themes such as risk reduction, partner navigation, and sexual health [6]. The paucity of this evidence leaves a gap in the understanding of conversational content across diverse settings and populations.

The digital health landscape is rapidly expanding, with mobile health (mHealth) apps, chatbots, and online peer communities increasingly used to deliver HIV-related support to adolescents and young people [7, 8]. However, these tools often lack evidence-based frameworks for conversational content, potentially limiting their effectiveness and cultural appropriateness. We propose to perform a scoping review to map the conversational themes, topics, and interaction patterns (defined as the structure, intentionality, and logistics of peer support conversations) documented in literature peer support interventions for AYPLHIV (aged 15–24 years). Understanding what peers discuss could be utilized for training new peer supporters effectively, standardizing program content, and designing scalable digital health interventions.

Methods

Study design

This scoping review will follow the methodological framework proposed by the Joanna Briggs Institute (JBI) guidelines for scoping reviews [9], and will be reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) guidelines [10].

Framing the research question

This review is designed to identify and map the conversational themes, topics, and interaction patterns documented in protocols and findings of programs and studies exploring peer support interventions for AYPLHIV aged 15–24 years using the Population, Concept, and Context (PCC) framework to inform the eligibility criteria.

- Population: AYPLHIV aged 15–24 years
- Concept: conversational themes, topics, and interaction patterns within peer support interactions. Interaction patterns are defined as structural and logistical characteristics including (a) modality (in-person, telephone, digital platforms); (b) format (dyadic, group-based, hybrid); (c) session structure (curriculum-driven vs. unstructured); (d) frequency and duration; and (e) directionality of topic initiation.
- Context: all global settings and modalities (in-person, digital/mHealth, community-based, clinic-based)

The main research question is, "What are the common conversational themes, topics and interaction patterns addressed in peer support for AYPLHIV (ages 15–24)?".

The secondary research questions are:

How are health-related concerns articulated or framed by the AYPLHIV?
What protocols or strategies are described for managing critical incidents and complex scenarios?
To what extent does the content of training curricula for peer supporters align with the themes and interactional patterns reported in empirical studies of naturalistic peer support?

Identifying relevant studies

A search will be conducted by an expert librarian affiliated with Massachusetts General Hospital (SFF) for published studies in MEDLINE via PubMed, EMBASE.com, Web of Science Core Collection, CINAHL, and PsycINFO. The search strategy used for MEDLINE via PubMed to be adapted to all other databases is displayed in Table 1. The search will be restricted to articles published from 2015 to present to capture the modern ART era when treatment paradigms shifted toward universal treatment.

Additionally, we shall search through organizational and sub-Saharan Africa Ministry of Health websites and repositories using both site search functions and manual navigation for toolkits and any support information. Organizations include but are not limited to: WHO, UNICEF, UNAIDS, PEPFAR Resource Library, International HIV/AIDS Alliance, AIDS United, USAID DREAMS Partnership, and EGPAF. Search terms used for each site included: "peer support HIV adolescent," "peer mentor toolkit," "youth peer guide," "teen club manual," "peer supporter training," "AYPLHIV support."

Table 1 Search strategy

#1	"Adolescent"[Mesh] OR "Minors"[Mesh:NoExp] OR "Young Adult"[Mesh] OR "adolescen*"[tiab] OR "youth*"[tiab] OR "young adult*"[tiab] OR "transitional age"[tiab] OR "emerging adult*"[tiab] OR "teen*"[tiab] OR "minor*"[tiab] OR "juvenile"[tiab] OR "prime adult"[tiab] OR "young person*"[tiab] OR "young people*"[tiab] OR "young man"[tiab] OR "young men"[tiab] OR "young woman"[tiab] OR "young women"[tiab] OR youngster*[tiab] OR "highschool*"[tiab] OR college*[tiab] OR "secondary school*"[tiab] OR "high school*"[tiab] OR university*[tiab]
#2	HIV[Mesh] OR HIV[tiab] OR HIV + [tiab] OR HIV/AIDS[tiab] OR HTLV-III-LAV[tiab] OR PLHIV[tiab] OR PLWH*[tiab] OR PWH[tiab] OR ALHIV[tiab] OR ALWH[tiab] OR "HIV infections"[Mesh] OR "Human Immunodeficiency Virus*"[tiab] OR "HIV Seropositivity"[Mesh] OR "HTLV-III"[tiab] OR "Lymphotropic Virus Type III"[tiab] OR "Human T-Cell Leukemia Virus Type III"[tiab] OR "Human T Cell Leukemia Virus Type III"[tiab] OR "LAV-HTLV-III"[tiab] OR "Lymphadenopathy-Associated Virus*"[tiab] OR "Lymphadenopathy Associated Virus*"[tiab] OR "T-Lymphotropic Virus Type III"[tiab] OR "Acquired Immunodeficiency syndrome"[Mesh] OR "AIDS"[tiab] OR "Acquired Immune Deficiency Syndrome"[tiab] OR "Acquired Immunodeficiency Syndrome"[tiab] OR "Human immuno deficiency virus"[tiab] OR "immunodeficiency associated virus"[tiab: ~ 1] OR "LAV"[tiab] OR "LAV (AIDS)"[tiab: ~ 1] OR "lymphadenopathy associated retrovirus"[tiab] OR "acquired human immunodeficiency syndrome"[tiab] OR "acquired immune deficiency disease syndrome"[tiab] OR "acquired immuno-deficiency syndrome"[tiab] OR "acquired immunodeficiency disease syndrome"[tiab] OR "acquired immunodeficiency virus syndrome"[tiab]
#3	"Peer Group"[Mesh] OR "peer group*"[tiab] OR "peer support"[tiab: ~ 1] OR "peer program"[tiab: ~ 1] OR "support group*"[tiab] OR Whatsapp[tiab] OR "peer nomination*"[tiab] OR "peer relation*"[tiab] OR "peer acceptance"[tiab] OR "trained peer*"[tiab] OR "Self-Help Groups"[Mesh] OR "Self-Help Group*"[tiab] OR "Self Help Group*"[tiab] OR "Therapeutic Social Club*"[tiab] OR "Social media"[Mesh] OR "Social Medi*"[tiab] OR "Twitter"[tiab] OR "Social Networking"[tiab] OR "Snapchat"[tiab] OR "Facebook"[tiab] OR "Insta*"[tiab] OR "Youtube"[tiab] OR "TikTok"[tiab] OR "Reddit"[tiab] OR "Flickr"[tiab] OR "social platform"[tiab] OR "Tumblr"[tiab] OR "WeChat"[tiab]
#4	2015/01/01:3000/12/31[Date—Publication]
#5	#1 AND #2 AND #3 AND #4

Study selection

Title and abstract screening will be conducted independently by seven reviewers using Covidence. Full-text articles of potentially eligible studies will be retrieved and assessed against the inclusion/exclusion criteria by the same seven independent reviewers. The full-text review will require reviewers to select a specific reason for exclusion for any excluded study (e.g., "Wrong Population," "No Conversational Content"). Conflicts between reviewers will be resolved through discussion. A PRISMA-ScR flow diagram will document the number of records identified, screened, excluded (with reasons), and included at each stage.

Inclusion criteria

Population

- Studies where AYPLHIV-specific data can be disaggregated from other age groups

Concept:
Studies that report on conversational content defined as

- Explicit description of topics/themes discussed in peer interactions (e.g., "peers discussed disclosure strategies")
- Direct quotes or excerpts from peer conversations
- Thematic analysis of peer support session content
- Program descriptions that specify conversational topics/modules.
- Acceptable if conversational content is described even if not the primary focus

Context

- There will be no contextual restrictions

Exclusion criteria

Studies will be excluded if they met the following criteria:

- Conference abstracts without full text available
- Opinion pieces or editorials without primary data
- Studies focused solely on peer support outcomes without describing content

Data charting process

Data will be extracted from papers included in the scoping review using a standardized data extraction template. To ensure consistency and validity, the extraction form will first be piloted by the review team on a random sample of five included citations. Any ambiguities in the form or coding discrepancies will be resolved through discussion with the study team, and the form will be refined before full extraction begins. We will extract data across the following domains to address the specific research questions regarding conversational themes, articulation, and safety management (Table 2).

Table 2 Extraction items

Domain	Variables	Definition/options
Source characteristics	Author(s), year	Free text
	Country	Free text
	WHO region	AFR/AMR/EMR/EUR/SEAR/WPR
	Income classification	LIC/LMIC/UMIC/HIC (World Bank)
	Source type	Academic/grey literature
Population and context	Target age range	Specific range (e.g., 15–19 years)
	Gender distribution	As reported
	Setting	Clinic/community/school/online/mixed
Interaction patterns (PRIMARY)	Modality	In-person/Phone/WhatsApp/SMS/Forum/Hybrid/NR
	Format	Dyadic/group/mixed/NR
	Session structure	Structured/unstructured/hybrid/NR
	Frequency/duration	Free text as reported
	Topic initiation	Peer-led/mentee-led/mutual/NR
Conversational content (primary)	Content type	Intentional/experiential
	Themes/topics	Verbatim list as reported in source
	Illustrative quotes	Direct excerpts if available
	Linguistic features	Description if reported (e.g., tone, framing)
Safety and crisis management (secondary)	Crisis protocols	Description if reported
	Referral pathways	Description if reported

Conflict resolution and missing data disagreements

During extraction, disagreements will be resolved through discussion between the reviewers or by adjudication with one of the senior authors (DJ, LB or JH) if consensus cannot be reached. If key data regarding conversational content are missing or unclear, we will attempt to contact the corresponding authors of the primary studies for clarification.

Collating, summarizing, and reporting the results

Tables and figures will summarize source characteristics including publication year trends, geographic distribution, income classification, source types, age group distributions, and interaction pattern characteristics. A summary table of all included sources with key extracted variables will be provided. A taxonomy of conversational themes will be developed using an iterative, inductive approach informed by qualitative content analysis principles. Themes reported across sources will be independently coded by two reviewers, compared, and organized into hierarchical categories (e.g., "Adherence" → "Pill-taking strategies," "Side effect management"). The taxonomy will be presented separately for intentional content (from curricula and guidelines) and experiential content (from empirical studies). A cross-tabulation matrix will compare intentional versus experiential content to identify: (a) convergent themes present in both training curricula and naturalistic conversations; (b) aspirational gaps—themes prescribed in curricula but rarely observed in practice; and (c) curriculum gaps—themes emerging naturalistically in conversations that are absent from training materials.

Discussion

The aim of the current review is to describe conversational patterns, themes and interaction patterns addressed during peer support conversations for AYLHIV. Despite the relevance of this data for informing future training and the design of digital health tools, the specific content of these conversations has not previously been systematically explored.

Understanding these thematic landscapes is a prerequisite for the development of conversational AI tools. Specifically, these findings can be used to guide the design of these tools and the curation of training datasets, enabling the creation of AI tools that are empathetic, realistic, and reflective of successful human peer dynamics. Beyond digital health applications, these findings will help refine standard training curricula for human peer supporters by potentially highlighting high-priority topics that frequently arise in naturalistic settings but may be missing from existing training manuals.

A limitation of this review is that, consistent with scoping review methodology, we will not formally assess the quality of included studies. Additionally, the restriction to English-language documents and non-English documents with translation available may exclude relevant programs from non-Anglophone regions. However, a key strength of this review is the inclusion of project documentation and reports, ensuring that implementation knowledge often held in non-academic program reports is captured.

Any amendments made to the protocol will be noted on the OSF registry.

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Patient and public involvement Patients or members of the public were not involved in the design, conduct, or reporting of this scoping review protocol. As the review progresses, we anticipate engaging AYPLHIV in the interpretation and dissemination of findings.

Authors' contributions TMK conceived the study, led the development of the search strategy, designed the data extraction framework and synthesis plan, and drafted the manuscript. TK contributed to the design of the screening and extraction procedures and critically revised the manuscript for important intellectual content. SFF developed and validated the search strategy across all databases, managed reference deduplication and data curation, and reviewed and edited the manuscript. DN contributed to the design of the screening and extraction procedures and critically revised the manuscript for important intellectual content. DJ supervised the study, provided methodological consultation on the review design, and critically reviewed the manuscript. JEH supervised the study, contributed to the conceptualization and methodological design of the review, and critically reviewed the manuscript. All authors approved the final version of the manuscript and agree to be accountable for all aspects of the work. LMB supervised the study, contributed to the conceptualization and design of the review, and critically the manuscript.

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Data availability No datasets were generated or analysed during the current study.

Declarations

Ethics approval and consent to participate This scoping review will exclusively synthesize data from previously published academic literature, publicly available grey literature, and program documents. No primary data will be collected from human participants, and no identifiable patient data will be accessed or analyzed. Formal ethical approval is therefore not required for this study.

The completed review will be submitted for publication in a peer-reviewed open access journal to ensure broad accessibility to researchers, clinicians, program implementers, and policymakers working in this space. Key findings will be presented at relevant national and international conferences and directly to implementing organizations to facilitate uptake into training curriculum revision and program design. We anticipate that the outputs of this review will have practical utility for organizations designing or revising peer support training curricula for AYPLHIV.
The complete dataset, including the reconciled extraction data, the thematic taxonomy with all contributing sources mapped to each theme, and the alignment matrix comparing intentional and experiential content, will be deposited in the Open Science Framework repository and made publicly available without embargo upon publication. Any amendments to this protocol made after registration will be documented with dates, rationale, and a description of each change in both the OSF registration and the final published manuscript.

Competing interests The authors declare no competing interests.

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