



RESEARCH ARTICLE

Exploring Educator-Student Communication Patterns in Health Education Settings: A Scoping Review

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ARTICLE INFO	ABSTRACT
Received: May 21, 2024 Accepted: Jul 9, 2024	Effective communication is essential in health education, particularly in schools, where educators shape students' health behaviors and well-being. Educator-student communication in this study encompasses a range of verbal and non-verbal exchanges that occur during health education sessions, impacting comprehension and engagement. This scoping review is dedicated to a comprehensive examination of educator-student communication in health education, exploring key concepts, methodologies, and findings within both school and healthcare contexts. We gathered data from 2013 to 2023 through major scientific databases: PubMed, ScienceDirect, Scopus, Web of Science, Springer, and Google Scholar. Nine studies meeting the predetermined inclusion criteria were pertinent to this review. These studies employed diverse methodologies, including observation studies, qualitative research designs, and discourse analysis. Our analysis underscores the pivotal role of effective educator-student communication interactions in achieving positive health education outcomes. A recurrent theme was inter-professional communication, highlighting the significance of teamwork and coordination. Communication dynamics significantly influenced decision-making processes. Contextual factors, such as case complexity and cultural diversity, played a substantial role. Cognitive authority distribution and co-construction were pivotal in shaping knowledge sharing within the classroom. In summary, this scoping review delves into educator-student communication during health education sessions in both school and healthcare settings. It emphasizes the significance of tailored communication and student engagement in health education, providing valuable insights for evidence-based interventions aimed at promoting positive health behaviors among students.
Keywords Health Education Educator-Student Communication School Settings Healthcare Settings Effective Communication Positive Health Behaviors	
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INTRODUCTION

Effective communication is paramount in the realm of health education, particularly within educational institutions like schools, where educators exert substantial influence in shaping students' health behaviors and overall well-being. A proficient communication is the cornerstone for health education sessions and their successful quality (Udoudom et al., 2024).

In this context, it is notable that educator-student communication interactions provide the building blocks of effective communication in health education. These fundamental communication

interactions facilitate the seamless exchange of information, enable the clarification of queries, and allow for the expression of concerns with precision and clarity. Thought and purposeful interactions empower educators to communicate the most intricate health-related concepts in a manner that students can understand easily, resulting an environment conducive to productive learning and free flow of information (Mann et al., 2009).

In health education sessions, the communication between educators and students encompass the multifaceted exchange of both verbal and non-verbal communication (Kasim & Joseph, 2022). These interactions require a combination of thinking, self-awareness, and social skills, which ultimately affect how well students understand and engage with health-related information.

In health education, the communication between educators and students involves complex and dynamic exchanges that take place during social interactions. Crucially, these interactions go beyond simple language exchange; These exchanges create a mutual, sometimes unequal, relationship between participants, leading to the collaborative creation of a unique shared reality (Cropanzano et al., 2017). These interactions are essential parts of the overall communication process, going beyond mere words. Language plays a central role in shaping interactions, whether face-to-face or in more abstract forms.

In essence, educator-student communication in health education is a nuanced process. It includes dialogue, discussions, and the sharing of information, all contributing to a shared understanding and a sense of social reality (Camus, 1999). Despite its importance, there is no single agreed-upon definition. Different fields, educational settings, and countries have their own ways of defining these interactions, reflecting their unique needs and perspectives.

Understanding how educators and students communicate in health education can reveal how effective communication leads to better health outcomes (Yedia et al., 2003). However, there has been no comprehensive scoping review addressing the analysis of educator-student communication interactions in health education sessions within the school settings. Hence, performing a scoping review is imperative to offer a comprehensive overview of the current body of literature in this area.

Therefore, the objective of this scoping review is to map out what we know about educator-student communication in health education sessions. By examining the current research, this review aims to highlight effective communication strategies and their impact on promoting health in schools.

MATERIALS AND METHODS

The objectives of this study align well with the aims of a scoping review, as identified by Arksey, H., and O'Malley, L. (2005), Scoping reviews are designed to systematically map out key concepts within a specific research area, especially in fields where evidence is still emerging, addressing questions beyond intervention effectiveness or experience. They can be conducted to map literature based on various factors like time, location, source, and origin. These reviews are valuable in evidence-based practice as they help identify research knowledge gaps, clarify key concepts, and report on the types of evidence informing practice in the field (Peters et al., 2015; Jam et al., 2014).

Scoping reviews are employed when a substantial corpus of literature has not been fully explored, or when the subject matter is complex and varied (Peters et al., 2015). These reviews function as an optimal tool to determine the scope and depth of research on a given topic, indicating the abundance of available research and scholarly work (Munn et al., 2018). According to (Armstrong et al., 2011; Jam et al., 2013), scoping reviews yield valuable outcomes for researchers, policymakers, and practitioners, providing a strategic framework for guiding forthcoming research efforts.

The approach employed for the identification of pertinent literature within a scoping study aims for comprehensive results. Unlike systematic reviews, where a focused research question guides study

design selection, scoping studies are directed toward the thorough identification of all relevant literature, regardless of the study design. Researchers may adjust search terms and refine their searches as they become more familiar with the literature. This iterative approach allows for reflection and refinement at each stage, ensuring a thorough coverage of the literature. The methodology stages for conducting a scoping study, per (Arksey, H., & O'Malley, L., 2005), include:

Phase 1: Formulate the Research Question

Phase 2: Identify relevant studies

Phase 3: Selecting relevant Studies

Phase 4: Organize and Summarize the Data

Phase 5: Compile, Synthesize, and Present Findings

Formulate the research question

The objective of this scoping review serves a dual purpose. Firstly, it aims to comprehensively explore and map out how educator-student communication in health education sessions is analyzed in both school and healthcare settings. Secondly, the review seeks to identify key concepts, methodologies, and findings related to these interactions, while also clarifying any existing gaps in the research knowledge base. To guide this exploration, the subsequent research questions were developed:

1. What are the common themes, concepts, and methodologies used in the analysis of educator-student communication in both school and healthcare contexts?
2. How are language interactions in health education sessions studied and addressed in the literature for both school and healthcare settings?
3. What are the key findings and outcomes related to educator-student communication in health education sessions within school settings?

Identify relevant studies

The bibliographic research for this article commenced on January 28, 2022. During this stage, the authors conducted a thorough search across four primary databases: PubMed, Science Direct, Web of Science, Scopus, Springer, and Google Scholar. The search encompassed publications from 2013 to 2023, restricting the time frame to the last 10 years. This approach was considered appropriate and justified for identifying current and relevant findings on educator-student communication in health education sessions.

Selecting relevant studies

Criteria for eligibility

The titles, abstracts, and full-text papers underwent screening based on the designated criteria for inclusion and exclusion.

Table 1: Criteria for Inclusion and Exclusion to Identify Pertinent Studies

Criteria for Inclusion	Criteria for Exclusion
Articles disseminated in electronic databases mentioned previously and indexed journals	Articles are categorized as book chapters, narrative reviews, theses, or expert opinions
Articles released in English or French	Articles released in other languages than English
Papers published in the last 10 years (2013–2023)	Papers published before 2013

<p>Studies conducted in school settings involving health education sessions for students, children, adolescents, or youth, or in other healthcare settings</p> <p>Papers that focus on face-to-face health education sessions or interventions aiming to promote health and well-being</p> <p>Papers that explore or discuss language interactions, educator-student communication patterns, discourse analysis, or related topics within health education sessions</p> <p>Papers that report findings related to language use, effectiveness of communication, or other relevant outcomes in health education settings</p>	<p>Studies conducted in settings other than schools and healthcare</p> <p>Papers focused on health interventions unrelated to health education</p> <p>Papers that do not directly relate to health education, language interactions, or the school environment</p> <p>Papers that do not report findings related to language use, effectiveness of communication, or other relevant outcomes in health education settings</p>
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Data Mapping

The outcomes of the present study were organized using Zotero for Windows. All pertinent details, encompassing titles, authors, dates, abstracts, and full texts, were then transferred to Atlas ti 9 software, which is utilized for qualitative data analysis and extraction. The utilization of coding software such as Atlas ti allowed us to analyze the data in a systematic and iterative manner, simplifying the process compared to traditional methods such as spreadsheets, note cards, or word processing (Lewis, 2016). Within this investigation, the researchers employed Atlas ti coding process to categorize and explore various aspects of the study, such as its objectives, the study population, research design or methodology, the theory or model employed, and the outcomes of the interventions. These elements were subsequently consolidated into a dedicated table.

Table 2: Attributes of Included Studies

Author, year	Study aims	Study population	Design or method	Theory/Model	Intervention outcomes
(Kilpatrick, 2013)	The study aimed to explore how cardiology ACNPs (acute care nurse practitioners) affect team processes that include communication and decision-making about patient care.	The study was conducted in two university-affiliated teaching hospitals in Quebec, Canada, involving healthcare professionals from two different case units, including ACNPs, registered nurses (RNs), physicians,	a non-participant observation design, where the researcher observed and documented interactions and communication behaviors among ACNPs and healthcare team members during routine patient care activities and interdisciplinary team meetings, collecting data in various periods divided into observation	Bales' Interaction Process Analysis method (IPA)	The study's non-participant observations documented a total of 12,275 behaviors during routine patient care activities, with Case 1 averaging 9.5 communication behaviors per minute and Case 2 averaging 13.8 behaviors per minute. ACNPs were prominently observed, initiating about 40% of communications in Case 1 and 50% in Case 2, interacting with physicians, nurses, and patients. The transfer of prescriptive authority influenced communication patterns and decision-making, while leadership and power

		and other members of the healthcare team.	intervals to prevent observer fatigue.		dynamics shaped the role of ACNPs within the teams.
(Soukup et al., 2020)	The objective of this investigation is to delve into the influence of external conditions and intrinsic elements on team interaction and communication within multidisciplinary teams (MDTs) when engaging in discussions about cancer cases.	44 healthcare professionals who participated in multidisciplinary team meetings focusing on breast, colorectal, and gynecological cancers in three university hospitals in the Greater London and Derbyshire areas in the UK	The study utilized a prospective cross-sectional observational design, recording 30 multidisciplinary team (MDT) meetings over 3 months. During these meetings, 822 case discussions were quantitatively assessed using validated observational instruments to measure team interaction and communication.	Bales' Interaction Process Analysis Method (IPA) the functional perspective as a theoretical framework.	The study's outcomes showed significant associations between external circumstances, such as case complexity, logistical issues, and time-workload pressure, and multidisciplinary team (MDT) interaction and communication patterns. Moreover, internal variables such as team size, disciplinary variety, and gender equilibrium were observed to impact task-oriented communication and socio-emotional interactions within MDTs. These findings offer valuable insights into optimizing multidisciplinary team composition and dynamics, promoting effective communication, and enhancing patient care outcomes in cancer treatment.
(Soukup et al., 2022)	The objective of the investigation was to assess the occurrence of logistical difficulties in cases deliberated by the multidisciplinary team (MDT) and ascertain the correlation between these challenges and the caliber of decision-	Conducted between September 2015 and July 2016, the research was carried out across three university hospitals in Greater London and Derbyshire, United Kingdom. The study encompassed three distinct cancer multidisciplinary teams (MDTs) specializing in breast,	A subsequent examination of cross-sectional observational data derived from cancer multidisciplinary team (MDT) meetings was conducted. In this context, three established observational tools were employed: Metrics for Observation of Decision-Making (MDT-MODe) for evaluating decision-making, Bales' Interaction Process Analysis (Bales' IPA) for assessing	The functional perspective	The research revealed the prevalence of logistical difficulties within Multidisciplinary Team (MDT) meetings, impacting more than 40% of the discussed cases. These challenges notably influenced both decision-making processes and communication dynamics. Escalating administrative, procedural, and attendance-related concerns correlated with a decline in patient information quality. Similarly, equipment-related issues detrimentally affected the substance of discussions and positive team interactions. Notably, logistical obstacles intensified task-focused communication and socio-emotional interactions, especially about questioning

	making and communication during MDT sessions.	colorectal, and gynecological cancers. A total of 10 weekly MDT meetings from each cancer specialty were systematically recorded through video for subsequent analysis.	communication and interactions, and Measure of Case Discussion Complexity (MeDiC) for gauging the intricacies of case discussions.		and responses, during these sessions. The imperative to address these challenges becomes evident as it stands to enhance the overall efficiency and effectiveness of MDT meetings.
(Wang et al., 2022)	The study had the following aims: To investigate the communication patterns exhibited by emergency physicians within the emergency department of a hospital in Taiwan. To furnish insights and suggestions derived from the research findings intended to enhance effective communication and education between physicians and patients within the emergency department.	The research sample encompassed eight physicians (7 males and 1 female) and 54 patients (comprising 33 males and 21 females) situated within the emergency department of a regional hospital in Taiwan.	Nonparticipant observation	The Roter Interaction Analysis System (RIAS)	The investigation conducted within Taiwanese hospitals revealed that communication between physicians and patients in the emergency department predominantly revolved around tasks, with data gathering being the predominant behavior. Socio-emotional-focused communication was less frequent, with less empathy and patient activation. Based on the findings, the study recommended implementing communication-training programs for emergency physicians to improve patient satisfaction and emphasized the importance of balancing task-focused and socio-emotional exchanges for comprehensive patient care. Improving patient-physician communication can enhance patient education, achieve consensus, and boost overall patient satisfaction in emergency departments.

(Laws et al., 2018)	The objective of the research was to investigate the correlation between the proficiency of therapists' motivational interviewing (MI) skills and the subsequent dialogue of clients while considering the preceding discourse of the clients.	The individuals were not actively seeking treatment; instead, they were enlisted based on their visits to two separate emergency departments (EDs). The inclusion criteria encompassed individuals aged 18 to 65 who attained scores of ≥ 8 on the Alcohol Use Disorder Identification Test (AUDIT) for males or ≥ 6 for females or acknowledged at least one instance of binge drinking within the previous 30 days. Additionally, they needed to report involvement in at least one risky sexual behavior within the last 3 months to qualify for participation in the study.	The study draws upon information gathered from a randomized controlled trial that evaluated a concise motivational interviewing (MI) intervention in comparison to a brief advice control group.	Motivational Interviewing (MI), Furthermore, it extends the existing sequential model literature by aiming to comprehend the connection between therapist elicitation interventions and subsequent client language while considering the clients' previous state.	The research outcomes indicated that therapist motivational interviewing (MI) skills, particularly the utilization of open questions, complex reflections, paraphrasing reflections, and summarizing reflections, were linked to higher levels of client engagement in dialogue during the intervention, in contrast to the use of closed questions. Prior client talk was the most significant predictor of subsequent client talk, indicating its self-perpetuating nature, while prior client talk had an inverse relationship with subsequent therapist talk. These findings shed light on the dynamics of therapist-client interactions during MI interventions and emphasize the importance of specific MI techniques in promoting client talk, a crucial aspect of behavior change processes.
(Piperini et al., 2019)	The study aims to characterize the socio-cognitive dynamics of	78 patients with type II diabetes participated in collective nutrition	A non-interventional approach, observing regular collective educational	the theory of Fishbein and Ajzen. Socio-cognitive	The study utilized thematic, educational, and dialogical analyses to explore the content and dynamics of educational sessions for diabetes type II patients. The dominant themes

	language exchanges between participants and educators during collective educational sessions on nutrition for patients with type II diabetes.	education sessions.	sessions without making any modifications. Data is collected by analyzing language interactions during these sessions.		were "restrictions" and "pleasure associated with food," while the sessions mainly focused on dietary restrictions and healthy habits. Social support was modest, with healthcare providers mostly encouraging participation and participants engaging in experiential communication. Framing messages with attributes and negative framing were common, influencing acceptance and adherence to recommendations. Tailored approaches are crucial to address participants' emotional needs and preferences, creating a safe space for open discussions on sensitive topics. The study emphasizes the significance of considering emotional and experiential aspects in nutritional education to enhance engagement and adherence to dietary recommendations.
(Hirvonen & Palmgren-Neuvonen, 2019)	The primary goal of this research is to delve into the process by which cognitive authority manifests within group-based projects focused on knowledge construction during health education sessions. Specifically, the study aims to elucidate the distribution	Health education teachers (n = 5) and their students (n = 56) in two secondary schools in Finland	The study employs a qualitative approach: a nexus analysis.	cognitive authority, Further, the analysis takes into account the concepts of learner agency, participation, collaborative learning, and multi-literacy within the context of health education.	The study's main findings highlight the distribution of cognitive authority in classroom interactions, with the core curriculum and school practices influencing this process. Tasks were introduced in whole-class settings, where students presented their group products, positioning themselves as authorities. Group work allowed for collaborative knowledge building, while cognitive authorities were subtly co-constructed, relying on teacher-selected materials and personal experiences. Google was used as an information-seeking tool, but the credibility of online sources was not always critically evaluated. The study emphasizes the importance of supporting students in evaluating information sources and

	of cognitive authority and the collaborative co-construction of cognitive authority among participants within these instructional contexts.				improving information literacy instruction to engage students in meaningful and authentic information practices in health education lessons.
(Crawford et al., 2015)	The study aims to explore the challenges and issues related to nurse-patient communication in culturally diverse healthcare settings. The article also aims to apply theoretical frameworks to better understand intercultural communication and propose strategies for improving communication in such settings.	The study population includes nurses from culturally and linguistically diverse (CALD) backgrounds and their patients, including native English speakers and individuals from a range of CALD backgrounds, including Indigenous Australians.	The design of this article is a qualitative study using discourse analysis.	Theoretical frameworks explained by Szalay, Tannen, and Gumperz are included. The model used is an intercultural communication model.	The article highlights that miscommunication and misunderstandings often arise in nurse-patient interactions due to differences in cultural frames of reference, language use, and the interpretation of contextualization cues. Nurses from CALD backgrounds may face challenges in adapting to the communication styles and expectations in the new cultural environment, leading to communication breakdowns. The article emphasizes the importance of raising awareness of these issues and developing interventions to improve communication skills and enhance therapeutic relationships between nurses and patients from diverse backgrounds.
(Crawford et al., 2018)	The objective of this study is to analyze nurse-patient interactions through the lens of	The study population consisted of four registered nurses (RNs) from culturally diverse	Qualitative research design centered on discourse analysis. The interactional sociolinguistic (IS) and theme-oriented discourse	Schema theory	The study analyzed three nurse-patient interactions focusing on patient education, using schema theory to understand their effectiveness. In the first interaction, the RN successfully tailored education to the patient's needs, linking it to their prior knowledge. The

	cognitive learning theories to improve communication and patient education skills.	backgrounds (China, Zimbabwe, Iran, and the Philippines) who had been working in Australia for 3 to 10 years.	analytic (TODA) approaches.		second interaction showed some elements of schema theory but without prior knowledge linkage. The third interaction lacked schema theory elements, resulting in limited engagement. The study highlights diverse patient education strategies and underscores the significance of integrating schema theory to elevate communication proficiency and enhance patient outcomes. While not generalizable, it offers insights into structuring effective patient education for better learning and safety.
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RESULTS

Initially, the databases yielded a total of 331 publications. Following the application of inclusion and exclusion criteria, 54 publications underwent screening. After removing duplicates, we assessed the titles and abstracts, leading to the review of abstracts from 50 publications. Out of these, 36 articles were excluded, leaving us with 14 articles for full-text examination. Eventually, the criteria were met by nine studies, which were subsequently included.

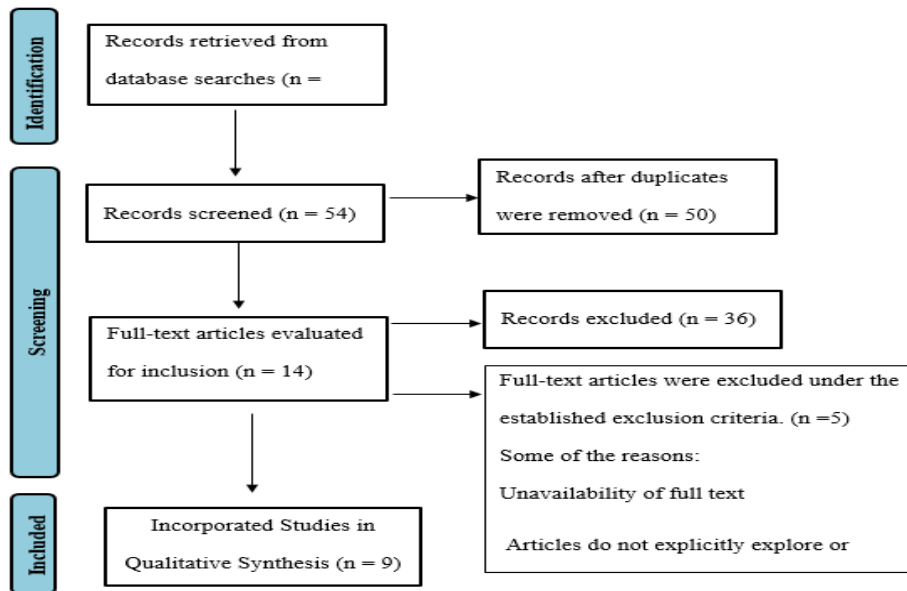


Figure 1: PRISMA flow diagram: Findings of the scoping review Near here”

To analyze the data, we employed Atlas TI 9 software, which facilitated the creation of a word cloud. The word cloud revealed the prominence of relevant keywords, including language, communication, health education, interactions, healthcare, nurses, patients, and interventions.

Throughout the selection process, no discrepancies were identified. Both reviewers, KD and AG, conducted the review harmoniously without encountering any conflicts regarding the acceptance of the studies.

The outcomes of this scoping review involved an exhaustive analysis of educator-student communication across diverse healthcare and health education environments. The selected studies employed diverse methodologies, including observational studies (n = 3), secondary analysis of observational data (n = 1), and qualitative research designs (n = 5).

Notably, (Kilpatrick, 2013; Kanval et al., 2024) conducted a non-participant observation design, exploring the impact of cardiology ACNPs on team processes and communication in healthcare settings. (Soukup et al., 2020) utilized a prospective cross-sectional observational design and Bales' Interaction Process Analysis (IPA) coding system to investigate team interaction and communication during cancer case discussions in multidisciplinary teams. Similarly, (Wang et al., 2022) employed a nonparticipant observation approach, employing the Roter Interaction Analysis System (RIAS), to investigate the communication behaviors exhibited by emergency physicians within an emergency department. The review also revealed qualitative approaches in studies by (Piperini et al., 2019), (Hirvonen & Palmgren-Neuvonen, 2019), (Crawford et al., 2015), (Laws et al., 2018), exploring language exchanges, cognitive authority, and challenges in nurse-patient communication in culturally diverse healthcare settings. Furthermore, (Crawford et al., 2018) investigated patient education interactions and the application of cognitive learning theories.

The themes that emerged from these studies included inter-professional communication (Kilpatrick, 2013); multidisciplinary team communication (Soukup et al., 2020), (Soukup et al., 2022); nurse-patient communication (Wang et al., 2022); (Crawford et al., 2015), education and learning (Piperini et al., 2019); (Hirvonen & Palmgren-Neuvonen, 2019), and patient education (Laws et al., 2018); (Crawford et al., 2018);

These diverse strategies and themes offer valuable insights into the dynamics of educator-student communication within healthcare and health education settings.

DISCUSSION

Understanding how educators and students communicate during health education sessions is crucial in shaping the effectiveness of the outcomes of these sessions. Language, as a powerful tool of communication, plays a pivotal role in conveying health information, fostering understanding, and promoting positive health behaviors among students.

The primary goal of this scoping review was to explore the evidence on how educators and students interact in health education sessions, both in healthcare and school environments. After applying the inclusion criteria, nine studies were identified eligible for this scoping review.

The reviewed studies have significant implications for health education in schools as they shed light on various aspects of language interactions, communication dynamics, decision-making processes, distribution of authority in knowledge, and contextual factors that influence the effectiveness of health education sessions.

One prevalent theme across the studies was the significance of interprofessional communication. Several of the remaining nine studies focused on how different healthcare professionals, such as ACNPs, physicians, and nurses, communicate within healthcare teams. Similarly, health education sessions in schools involve collaboration among educators, health professionals, and other stakeholders. Analyzing how these professionals communicate can reveal how teamwork and coordination impact the delivery of health education.

Additionally, the studies (Kilpatrick, 2013); (Soukup et al., 2022) explored how communication dynamics influence decision-making in health education sessions. Understanding these interactions helps us see how communication shapes educational outcomes. By recognizing the impact of power dynamics and communication on decision-making, we can optimize content delivery, engagement strategies, and inclusivity in health education sessions. Understanding these factors is crucial for designing and implementing effective health education that enhances learning outcomes and promotes positive health behaviors among students.

Contextual factors emerged as another key theme in multiple studies (Soukup et al., 2020); (Soukup et al., 2022); (Kilpatrick, 2013); (Wang et al., 2022); (Piperini et al., 2019). These studies emphasized the importance of considering the surrounding context and institutional policies in healthcare and educational settings, especially during health education sessions in schools. Factors like case complexity, logistical challenges, and cultural diversity significantly influence communication behaviors and language interactions in educational settings.

By acknowledging and understanding these contextual elements, educators and health professionals can develop communication strategies and tailored to each school's unique needs. This contextual sensitivity is essential for optimizing educator-student interactions and promoting effective health education sessions that resonate with students, facilitate better learning experiences, and ultimately lead to positive health outcomes.

Moreover, studies by (Kilpatrick, 2013); (Hirvonen & Palmgren-Neuvonen, 2019) explored cognitive authority distribution and co-construction during health education lessons. Understanding how authority and knowledge are shared between educators and students provides insights into creating inclusive and engaging learning environments. This approach empowers students to actively participate in discussions about health-related topics.

Methodologically, the reviewed studies utilized observational designs and discourse analysis techniques. These methodologies proved effective in examining real-time interactions between educators and students during health education sessions, revealing patterns and themes that shape communication. Applying theoretical frameworks, such as Bales' Interaction Process Analysis and socio-cognitive theories, deepened our understanding of how effective communication unfolds.

By conducting a comparative analysis of the reviewed studies, we identified commonalities and differences in how educator-student communication plays out in healthcare and educational settings. This comparative approach facilitated the identification of effective communication strategies and interventions that could enhance health education in schools, promoting positive outcomes for students.

The insights from these studies have significant implications for health education practices in schools. Tailoring communication, fostering student-centered learning, building rapport, and empowering student voices emerged as crucial elements for effective teaching in this field. for effective pedagogical approaches in this domain.

Customizing communication strategies to fit each school's unique characteristics is essential (Piperini et al., 2019). By assimilating the insights gleaned from these studies (Kilpatrick, 2013); (Soukup et al., 2020); (Soukup et al., 2022), Educators who integrate cultural diversity considerations, address specific case complexities, and navigate logistical challenges can better connect with students, leading to a deeper understanding of health-related topics. (Crawford et al., 2018).

In parallel, a central theme is the shift toward student-centered learning, where students actively participate in their health education. This approach not only encourages ownership of learning but also instills a proactive approach to overall well-being (Kilpatrick, 2013); (Hirvonen & Palmgren-Neuvonen, 2019). The integration of open-ended inquiries, interactive discussions, and participatory activities (Laws *et al.*, 2018); (Piperini *et al.*, 2019) enriches communication, engages students more deeply, and enhances learning outcomes.

Moreover, fostering rapport and trust between educators and students is crucial (Kilpatrick, 2013); (Soukup *et al.*, 2020); (Wang *et al.*, 2022). Effective communication isn't just about delivering information; it's about creating a supportive and inclusive environment. By validating students' experiences and addressing their concerns, educators can enhance engagement and receptivity to health messages.

Understanding cognitive authority distribution and co-construction is also vital. Empowering students to voice their perspectives and co-create knowledge fosters a collaborative learning environment. By valuing students' contributions in health education sessions, educators can create a more dynamic and mutually beneficial learning experience (Hirvonen & Palmgren-Neuvonen, 2019); (Kilpatrick, 2013).

In a broader context, the findings from the reviewed studies extend beyond health education sessions, impacting educator training and professional development. The diverse methodological approaches and theoretical frameworks used in the reviewed studies can greatly inform how we train and develop educators in health education. By incorporating training in effective communication strategies, discourse analysis, and cultural competence, we can help educators improve their interactions with students and enhance their engagement and receptivity to positive health messages.

Limitations and strengths

This scoping review on educator-student communication in health education within school settings represents a pioneering effort, offering unique insights into how communication dynamics and decision-making processes unfold. The review's strength lies in its comprehensive examination of diverse studies, which provides valuable implications for tailored communication approaches and student-centered learning strategies to improve health outcomes among students.

However, there are some limitations to consider, such as the varying methodologies used in the selected studies. Despite these challenges, our review highlights the need for further research and practical guidance to enhance health education practices in schools.

CONCLUSION

In summary, this scoping review aimed to explore how educators and students interact during health education sessions in both school and healthcare settings, with the goal of promoting positive changes in health behaviors. By examining a range of studies, we gained valuable insights into the dynamics of communication, decision-making processes, and the distribution of cognitive authority in health education.

Key strategies that emerged include tailoring communication approaches, fostering student-centered learning, building rapport, and empowering students' voices. These strategies are crucial for creating impactful health education sessions that positively influence students' health outcomes and overall well-being.

The use of diverse research methodologies and theoretical frameworks deepened the understanding of how educator-student interactions shape health education. Overall, this scoping review serves as a foundational resource for developing evidence-based interventions that promote positive health behaviors and empower students to make informed decisions about their health.

DECLARATION OF INTEREST STATEMENT

The authors declare no conflicts of interest.

AUTHORS' CONTRIBUTION SECTION

DAOUDI Khadija, as the corresponding author, conceptualized and designed the study, acquired, analyzed and interpreted data, drafted and revised the manuscript.

GANTARE Abdellah supervised the research process, provided guidance throughout the study, and critically reviewed the manuscript for important intellectual content.

All authors have read and approved the final version of the manuscript.

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