Journal of Nonformal Education
Vol. 12, No. 2 (2026) 560-575

p-ISSN 2442-532X | e-ISSN 2528-4541
https://journal.unnes.ac.id/journals/jone

Reproductive Health Education Needs Among Adolescents and Young Adults: A Community-Based Survey

Viena Rusmiati Hasanah[1], Sri Maslihah[2], Nike Kamarubiani[3], Rengky Yasepta[4]

[1,2,3] Universitas Pendidikan Indonesia, Bandung, Indonesia
[4] Colorado School of Mines, Golden, Colorado

Corresponding author: viena@upi.edu

Submitted: Juny 15, 2026 Revised: July 20, 2026. Accepted: August 20, 2026

Abstract

Background – The need for reproductive health education among adolescents and young adults is influenced by social conditions, parenting styles and family communication, perceptions of reproductive health, peer relationships, as well as social and information environments.
Research Urgency – Reproductive health education needs to be grounded in actual requirements to ensure that developed programs align with the characteristics and life contexts of the target group.
Research Objectives – This study aims to analyze the reproductive health education needs of adolescents and young adults to serve as a basis for program development.
Research Method – The study employed a quantitative approach using a descriptive survey design oriented towards a needs assessment. It was conducted in Babakan Sari Urban Village, Bandung City, involving 35 respondents aged 11–22 years selected through purposive sampling. Data were collected using a 20-item structured questionnaire with response formats tailored to the nature of the questions. Data were analyzed using frequencies, percentages, and a synthesis across components.
Research Findings – The study produced a needs map covering social conditions, parenting styles and family communication, perceptions of reproductive health, peer relationships, and social and information environments. This synthesis was formulated into the Adolescent Reproductive Health Education Needs Framework (ARHENF), serving as an initial conceptual synthesis based on survey findings rather than an empirically validated framework.
Research Conclusion – The needs analysis provides an empirical basis for understanding reproductive health education needs in alignment with the characteristics and life contexts of adolescents and young adults.
Research Novelty/Contribution – The study's contribution lies in the integrated mapping of needs and their synthesis into the ARHENF, serving as a conceptual foundation for the development of reproductive health education programs.
Keywords: Needs Analysis; Reproductive Health Education; Adolescents; Young Adults

How to Cite:
Hasanah, V. R., Maslihah, S., Kamarubiani, N., & Yasepta, R. (2026). Adolescent Reproductive Health Education Needs Analysis as a Foundation for Developing Participatory Learning Strategies: A Community Education Perspective. *Journal of Nonformal Education*, *12*(2), 560-575. https://doi.org/10.15294/jone.v12i2.62463

INTRODUCTION

Reproductive health education plays a vital role in supporting quality of life, well-being, health literacy, and an individual's capacity to make responsible decisions. Reproductive health encompasses not only biological aspects but also the ability to understand personal changes, acquire and evaluate information, build healthy social relationships, and apply knowledge in daily life (Gogoi, 2023). This need is particularly significant during adolescence and early adulthood, as individuals in these groups are navigating developmental stages characterized by dynamic biological, psychological, social, and cognitive changes. Consequently, the need for reproductive health education must be understood in light of both individual characteristics and the social context of their lives.

The complexity of these needs is heightened by ever-changing social and information environments. Adolescents and young adults obtain reproductive health information from diverse sources, including family, peers, healthcare professionals, their social environment, and digital media. However, broad access to information does not always translate into the ability to comprehend, assess credibility, and utilize that information appropriately. The concept of health literacy identifies the ability to access, understand, evaluate, and apply information as a crucial component of health-related decision-making (Benton et al., 2020; Fleary et al., 2018; Sørensen et al., 2012). In the context of reproductive health, an individual's knowledge and decisions do not develop in isolation from their environment; rather, they are shaped by the interplay between personal characteristics and social contexts (Nasution et al., 2022; Salam et al., 2016; Yusuf et al., 2025). The family serves as a primary environment for shaping knowledge, values, attitudes, and behaviors. While parenting styles and family communication can provide essential support for understanding reproductive health, open dialogue on these topics does not always occur. Limited knowledge, discomfort, the sensitive nature of the subject matter, and sociocultural factors can all act as barriers to communication between parents and children (Agyei et al., 2025; Barral et al., 2023; Elnasharty et al., 2026; Iswanto et al., 2026). Peers also play a significant role as sources of support and information exchange, as well as agents in shaping social norms and exerting social pressure. Research on peer-based approaches highlights their potential to enhance knowledge, attitudes, and skills regarding sexual and reproductive health (Agyei et al., 2025; Ahi et al., 2025; Denno et al., 2015; Haberland et al., 2018). These conditions indicate that the need for reproductive health education must be understood by simultaneously considering the individual, family, peers, and the information environment.

This understanding is reinforced through the integration of several theoretical perspectives. Health literacy describes an individual's capacity to obtain, understand, evaluate, and use health information c. The Theory of Planned Behavior (TPB) explains that attitudes, subjective norms, and perceived behavioral control play a role in shaping intentions and behaviors (Ajzen, 1991), making it relevant for understanding perceptions and norms related to reproductive health. Social Cognitive Theory (SCT) views behavior as the result of reciprocal interactions among personal factors, behavior, and the environment, including social experiences and self-efficacy (Bandura, 1986). Meanwhile, the developmental ecology perspective situates the individual within interacting environments, ranging from family and peers to the broader social environment (Bronfenbrenner, 1979). Integrating these perspectives provides a foundation for understanding the need for reproductive health education as a multidimensional phenomenon linked to social conditions, family, reproductive health perceptions, peers, and the social and information environments.

Based on this framework, reproductive health education needs cannot be determined solely by assumptions regarding what information is deemed important. A needs assessment is essential to identify actual conditions, experiences, gaps, and priority needs before a program is developed. Nair et al. (2013) demonstrated that reproductive health needs are linked to knowledge, family communication, social norms, service access, and environmental support. Research on adolescent perspectives also highlights the importance of information relevant to their life experiences (Shahhosseini & Hamzehgardeshi, 2015). Thus, a needs

p-ISSN 2442-532X | e-ISSN 2528-4541
https://journal.unnes.ac.id/journals/jone

analysis provides an empirical basis for ensuring that reproductive health education programs align with the characteristics and life contexts of the target group.

Current research indicates that reproductive health studies have advanced in areas such as health literacy, family communication, peer education, school- and community-based interventions, and the enhancement of knowledge and attitudes. Studies in Indonesia also reveal ongoing issues regarding the integration of sexual and reproductive health education and a diversity of approaches (Lahope & Fathurrahman, 2024). However, there is limited research that simultaneously maps reproductive health education needs based on social conditions, parenting and family communication, perceptions of reproductive health, peer relationships, and the social and information environment prior to program implementation. This gap underscores the need for a community-based needs analysis capable of providing an integrated picture of the target group's circumstances.

Addressing this gap, this study conducted a community-based survey in Bandung to analyze the reproductive health education needs of adolescents and young adults. The research focused on mapping five components: social conditions, parenting and family communication, perceptions of reproductive health, peer relationships, and the social and information environment. A synthesis of these components was formulated through the Adolescent Reproductive Health Education Needs Framework (ARHENF); this serves as an initial conceptual synthesis based on survey findings rather than an empirically validated framework. The study contributes by providing an evidence base that integrates the various life contexts of the target group to better understand reproductive health education needs. This study aims to analyze the reproductive health education needs of adolescents and young adults as a basis for program development by identifying social conditions, parenting styles and family communication, perceptions of reproductive health, peer relationships, and social and information environments, and subsequently synthesizing findings across these components. The study results are expected to provide an empirical overview of reproductive health education needs, aligned with the characteristics and life contexts of the target groups, and serve as a conceptual foundation for program development in the subsequent stage.

METHODS

Research Approach and Design

This study employs a quantitative approach with a descriptive survey design oriented towards a needs assessment (Lim, 2025; Xu, 2025). This design was selected to obtain an empirical overview of reproductive health education needs among adolescents and young adults—based on their individual conditions and social environments—without testing causal relationships or the effectiveness of an intervention. A needs assessment is understood as a systematic process for identifying actual conditions, gaps, and priority needs to serve as a basis for program development (Watkins et al., 2012). The research was conducted from July to September 2025, with primary data collection taking place over a two-week period in August 2025.

Location, Population, and Sample

The study was conducted in Babakan Sari Urban Village, Bandung City. This location was purposively selected because it is an urban residential area that serves as the living context for adolescents and young adults and is relevant to the research objective of mapping community-based reproductive health education needs. The study population comprises individuals aged 11–22 years residing in Babakan Sari Urban Village. In this study, the 11–19 age group is categorized as adolescents, while the 20–22 age group is categorized as young adults. This classification ensures the accurate designation of target groups based on developmental stages.

Respondents were selected using purposive sampling based on the following criteria: (1) aged 11–22 years; (2) residing in Babakan Sari Urban Village; (3) able to understand and complete the questionnaire; and (4) willing to participate in the study. A total of 35 respondents met the criteria and provided the data for analysis. As respondent selection was non-probabilistic and the sample size limited, the findings are interpreted

as a snapshot of the target group's needs within the specific research context; they are not intended as estimates that can be statistically generalized to the entire population of adolescents and young adults in Bandung City.

Dimensions, Conceptual Framework, and Instrument

The instrument was developed based on a review of reproductive health, a needs assessment, the Theory of Planned Behavior (TPB), Social Cognitive Theory (SCT), and an ecological perspective (Ajzen, 1991; Bandura, 1986; Bronfenbrenner, 1979). TPB provides an interpretive framework for understanding attitudes, subjective norms, and perceived behavioral control in the formation of behavioral intentions (Ajzen, 1991). SCT is used to understand the interactions among personal factors, behavior, and the environment, including social experiences and self-efficacy (Bandura, 1986). The ecological perspective is employed to situate individual development within the context of interacting environments—specifically family, peers, school, community, and the information environment (Bronfenbrenner, 1979). These three perspectives serve as a conceptual and interpretive foundation rather than as constructs tested through inferential analysis.

The needs assessment encompasses five dimensions: (1) the social conditions of adolescents and young adults, including characteristics, social experiences, and information sources and access; (2) parenting styles and family communication, covering openness, support, communication, attention, and supervision; (3) perceptions of reproductive health, including understanding, attitudes, perceived benefits and risks, and decision-making tendencies; (4) peer relationships, involving interactions, support, influence, and peer pressure; and (5) the social and information environment, comprising school, community, health professionals, media, and other information sources. These five dimensions are used to obtain an overview of reproductive health education needs based on the respondents' individual characteristics and life contexts.

Data were collected using a structured questionnaire consisting of 20 items. Response formats were tailored to the characteristics of each question. Some items utilized dichotomous yes/no responses, while others employed three or five response categories. For frequency-based questions with five categories, the responses ranged from "never" and "once (unintentionally)" to "a few times," "often," and "always." Certain questions allowed respondents to select more than one answer, as the information sought could originate from multiple sources or contexts. Therefore, the instrument is treated as a needs-mapping questionnaire rather than a single psychometric scale with a unified score range.

The instrument's content validity was assessed through expert judgment involving three experts with relevant expertise: a family science specialist, a community education specialist, and a psychologist. The expert review covered the alignment of item content with research objectives, the representativeness of the aspects being mapped, the clarity of question wording, and the appropriateness of the language for the respondents' characteristics. The instrument was developed to map reproductive health education needs within the context of the lives of adolescents and young adults. Its scope encompasses social conditions, parenting and family communication, perceptions of reproductive health, peer relationships, and the social and information environment. The reproductive health perception aspect covers understanding, attitudes, values, and norms related to reproductive health, as well as respondents' tendencies in interpreting and responding to various reproductive health-related situations (Lahope & Fathurrahman, 2024). Thus, the instrument maps not only knowledge but also social conditions and perceptions relevant to reproductive health education needs.

Expert feedback was used to refine the wording and clarity of the items prior to the survey. As documentation of individual expert ratings was unavailable, quantitative content validity coefficients—such as Aiken's V or the Content Validity Index (CVI)—were neither recalculated nor reported. Content validity in this study is reported based on the expert judgment process and the subsequent incorporation of expert feedback. Following the expert review, a readability test was conducted with 10 respondents sharing characteristics similar to the target population. This test aimed to ensure that the questions, response options, and terminology were clearly understood by respondents. The results of the readability test were used to refine the instrument's wording before it was employed for primary data collection.

p-ISSN 2442-532X | e-ISSN 2528-4541
https://journal.unnes.ac.id/journals/jone

ARHENF Data Analysis and Synthesis

Data were analyzed using descriptive statistics, specifically frequencies and percentages, tailored to the characteristics of each response format (Xu, 2025). Data involving "yes/no" responses were analyzed based on frequency and percentage distributions, while data with three or five response categories were analyzed based on the distribution of each category. For items allowing multiple responses, percentages were calculated based on the number of respondents selecting each option; consequently, the total percentage could exceed 100%.

The analysis proceeded in stages: first describing respondent characteristics, then identifying response patterns across each of the five need dimensions. Subsequently, findings across dimensions were compared to identify prominent and consistent need patterns. Interpretation relied on needs assessment principles and the perspectives of TPB, SCT, and the ecological model, serving as a conceptual framework to understand the findings within the context of the respondents' lives (Ajzen, 1991; Bandura, 1986; Bronfenbrenner, 1979). The analysis was not intended to test causal relationships or theoretical constructs through inferential statistics.

The synthesis of needs involved integrating findings from the five dimensions: social conditions, parenting and family communication, reproductive health perceptions, peer relationships, and the social and information environment. Key findings for each dimension were identified and then compared to uncover substantive interconnections and emerging need patterns across components. The results of this integration were formulated into the Adolescent Reproductive Health Education Needs Framework (ARHENF), serving as an initial conceptual synthesis based on the survey findings. ARHENF is not positioned as a causal model, a psychometric instrument, or an empirically validated framework; rather, it serves as a conceptual map illustrating the components of reproductive health education needs identified within the target group.

Research Ethics

The study adhered to principles of voluntary participation, informed consent, confidentiality protection, and the use of data solely for research purposes. Prior to completing the questionnaire, respondents received an explanation regarding the research objectives, data collection procedures, information confidentiality, the right to decline answering specific questions, and the right to withdraw from participation without consequence. For respondents who had not yet reached adulthood, parental or guardian consent and respondent assent were obtained prior to data collection. Adult respondents provided consent directly. Given that reproductive health is a sensitive topic, data collection was conducted in a manner that safeguarded respondent privacy, without requiring the disclosure of identities or personal experiences irrelevant to the research objectives. Data were analyzed and reported in aggregate form, ensuring that individual information could not be identified in the research findings.

RESULTS AND DISCUSSION

This study aimed to analyze the reproductive health education needs of adolescents and young adults, based on social conditions, parenting styles and family communication, perceptions of reproductive health, peer relationships, and social and informational environments. A descriptive analysis was conducted to identify existing conditions, experiences, and assets, as well as needs requiring further strengthening (WHO, 2025). A synthesis across dimensions was employed to formulate the Adolescent Reproductive Health Education Needs Framework (ARHENF) as an initial conceptual synthesis.

Respondent Characteristics

The study involved 35 respondents aged 11–22 years. Of these, 23 (65.7%) were female and 12 (34.3%) were male. Regarding education levels, the respondents comprised 22.9% from primary education (Elementary/MI/Package A), 8.6% from junior secondary education (Junior High/MTs/Package B), 48.6% from senior secondary education (Senior High/MA/Package C), 5.7% from higher education, and 14.3% in other categories.

The respondents' age range reflects the inclusion of both adolescents and young adults within the study's target group. The age of 17 was the most frequent in the data, represented by 17 respondents (48.6%), while other ages were distributed across the 11–22 year range. Due to the relatively limited number of respondents in the 20–22 age group, the analysis of developmental differences was conducted descriptively and was not intended for inferential comparison. The 11–19 age group was categorized as adolescents, while the 20–22 age group was categorized as young adults.

Table 1. Respondent Characteristics

Characteristic	Category	n	%
Sex	Female	23	65.7
	Male	12	34.3
Education	Elementary/MI/Package A	8	22.9
	Junior High/MTs/Package B	3	8.6
	Senior High/MA/Package C	17	48.6
	Higher education	2	5.7
	Other	5	14.3
Total		35	100.00

Source: Research data.

The respondents were predominantly female and within the school-age group. This indicates that the research findings primarily reflect the experiences of adolescents, although respondents from the early adulthood group were also included. Needs regarding reproductive health education may vary based on developmental stage, educational level, relationship experiences, and increasing independence. Therefore, the research results are presented as an overview of the target group's needs at the research site, rather than as a statistical representation of all adolescents and young adults in Bandung City.

The educational heterogeneity is also significant. The respondents' different educational levels suggest that reproductive health education cannot rely on a uniform assumption about prior knowledge. Rather, learning experiences need to accommodate different levels of cognitive development, educational experience, language, and familiarity with health information. This supports the principle that adolescent health education should be developmentally appropriate and responsive to adolescents' actual contexts rather than delivered through a one-size-fits-all approach (Khalesi et al., 2020). Thus, respondent characteristics provide the first indication that needs assessment should function as a foundation for differentiated and context-sensitive learning, rather than simply determining the amount of information to be delivered.

Social Conditions and Peer Relationships

The data indicate the presence of positive social capital among the respondents. All 35 respondents (100%) stated that they were able to choose their friends. Of the 34 respondents who answered the question regarding the ability to refuse a friend's invitation to engage in negative behavior, 33 (97.1%) stated they were able to refuse, while one respondent stated they were unable to do so.

Table 2. Social Conditions and Peer Relationships

p-ISSN 2442-532X | e-ISSN 2528-4541
https://journal.unnes.ac.id/journals/jone

Indicator	Response	n	%	Valid N
Ability to choose friends	Able to choose	35	100.00	35
Ability to refuse negative peer invitations	Able to refuse	33	97.1	34
Reaction to students dating*	Indifferent	25	71,4	35
	Feel uncomfortable	5	14,3	35
	Feel envious	3	8,6	35
	Don't care	15	42,9	35
	Supportive and encouraging	2	5,7	35
Activity with boyfriend/girlfriend during leisure time	Not yet having a boyfriend/girlfriend	23	65,7	35
	Eating together	8	22,9	35
	Communicating via chat or phone	6	17,1	35
	Going to the movies	5	14,3	35
	Going to the mall	5	14,3	35
	Visiting a partner's house	1	2,9	35
	Going out for a walk or a drive	1	2,9	35
Sexual intercourse with friend/partner	Never thought about doing it	34	97.14	35
	Had the desire but afraid of sin	1	2.86	35

Source: Research data.

The findings indicate that the majority of respondents hold a positive perception of their ability to manage social interactions. However, the abilities reported via the questionnaire are best understood as a form of self-perception rather than proof that all respondents possess actual skills for handling every social pressure situation. From the perspective of Social Cognitive Theory (SCT), self-efficacy relates to an individual's belief in their capacity to perform an action, yet its application remains influenced by experience and the social environment (Bandura, 1986). The diversity of responses regarding students who are dating also demonstrates that the respondents' social perceptions are not uniform. Twenty-five respondents (71.4%) viewed it as normal, 15 (42.9%) were indifferent, 5 (14.3%) felt uncomfortable, 3 (8.6%) felt envious, and 2 (5.7%) expressed support. As the question allowed for multiple responses, the percentages do not sum to 100%.

These findings suggest that reproductive health education needs to take into account the diversity of experiences and perceptions regarding social relationships, rather than assuming that all respondents share the same attitude (Benton et al., 2020). From the perspective of the Theory of Planned Behavior (TPB), these differing perceptions are linked to the formation of attitudes and subjective norms that can influence behavioral intentions (Ajzen, 1991).

Family Parenting and Communication as an Educational Asset

The family represents a relatively positive social environment for the respondents. A total of 31 respondents (88.6%) described their parents as democratic and flexible, noting that they always offered advice in a constructive manner; conversely, 4 respondents (11.4%) indicated otherwise. Regarding parenting styles characterized by over-indulgence and a lack of adequate supervision, 29 respondents (82.9%) stated this was not the case, while 6 respondents (17.1%) indicated that it was. As for strictly controlling parenting styles, 30 respondents (85.7%) answered "no," and 5 respondents (14.3%) answered "yes."

Table 3. Parenting Styles and Family Communication

Parenting indicator	Yes, n (%)	No, n (%)	N
Parents provide excessive freedom without adequate supervision	6 (17,1)	29 (82,9)	35
Parents are democratic and flexible and provide advice appropriately	31 (88,6)	4 (11,4)	35
Parents are egoistic, controlling, and demand obedience without considering the child's opinion	5 (14,3)	30 (85,7)	35

Source: Research data.

The dominance of democratic and flexible parenting can be interpreted as an important family asset for reproductive health education. A supportive family environment can potentially provide adolescents with opportunities to ask questions, seek clarification, receive guidance, and discuss difficult situations (Salam et al., 2016). Nevertheless, parenting style and reproductive health communication should not be treated as identical constructs. A parent may demonstrate supportive parenting while still experiencing discomfort, limited knowledge, or uncertainty when discussing reproductive health. Therefore, the finding that 88.6% reported democratic/flexible parenting should not be interpreted as evidence that reproductive health communication within the family is already optimal (Ekwueme et al., 2024; Tituaña et al., 2026). This distinction is theoretically important. SCT emphasizes reciprocal interactions among personal factors, behaviour, and environmental influences (Bandura, 1986). The family therefore functions not merely as a background variable but as a learning environment in which adolescents observe behaviour, receive feedback, construct norms, and develop confidence in communicating and making decisions.

Thus, the implication is not that reproductive health education should be transferred entirely to parents. Instead, the family should be positioned as a complementary learning ecosystem (Walsh, 2016). Educational programs should strengthen adolescents' ability to communicate with trusted adults while also helping families develop more constructive dialogue around sensitive issues.

Reproductive Health Perceptions: Strong Normative Assets, but Uneven Understanding

Survey results indicate that respondents hold relatively diverse understandings and perceptions regarding various reproductive health issues. While the majority possess a basic understanding of the biological aspects and consequences of sexual behavior, responses regarding social issues related to sexual relationships and behaviors vary. A total of 31 respondents (88.6%) expressed disagreement with statements in the survey instrument concerning specific sexual orientations and behaviors, while others provided different responses. These findings demonstrate a diversity of perceptions among respondents regarding social issues linked to reproductive health. Such differences in response should be understood within the context of the values, social norms, and experiences shaping the respondents' environments, rather than as a measure of individual character or morality.

Regarding other indicators, 34 respondents (97.1%) stated that sexual harassment and sexual crimes are unacceptable acts. Additionally, 31 respondents (88.6%) agreed that exposure to pornography can trigger sexual urges and should therefore be avoided. These findings suggest that the majority of respondents possess a relatively strong foundation of perceptions and values. However, the existence of relatively positive perceptions does not necessarily imply that all respondents are equally capable of applying this knowledge and these values in real-life situations. From the perspective of the Theory of Planned Behavior, attitudes and subjective norms are components of the process that shapes behavioral intentions (Ajzen, 1991). Consequently, reproductive health education must address not only the dissemination of information but also the ability to understand situations, weigh values and consequences, and make responsible decisions.

In the context of this study, the survey items concerning sexual orientation and behavior serve to illustrate respondents' perceptions and social reactions to issues encountered in their daily lives; they are not intended to categorize or judge the respondents' identities. Thus, the diversity of responses provides valuable

p-ISSN 2442-532X | e-ISSN 2528-4541
https://journal.unnes.ac.id/journals/jone

insight into the social context that must be considered when assessing needs for reproductive health education. These findings reinforce the need for reproductive health education to consider not only biological aspects and information literacy but also how individuals perceive issues emerging within their social environments. Education that is responsive to needs must provide space for clarifying information, reflecting on values and norms, and developing decision-making skills aligned with the respondents' life contexts (Afridah et al., 2023; Haruna et al., 2019; Kim & Free, 2008). The respondents demonstrated relatively strong normative perceptions on several reproductive health issues.

Table 4. Perceptions of Reproductive Health

Perception indicator	Main response	n	%	N
View of students having romantic relationships	Considered normal	25	71.42	35
Perception of current dating styles	Considered similar to adults	32	91.42	35
Understanding menstruation and possibility of pregnancy	Correct understanding	25	71,4	35
Pornography can generate sexual urges and should be avoided	Agree	31	88,6	35
Understanding of sex	Male and female	35	100,0	35
Responses to statements regarding specific sexual orientations and behaviors	Disagree, violates religious teachings	31	88,6	35
Response to peers whose gender expression differs from perceived stereotypes	Disagree, violates religious teachings	18	51.42	35
Perception of sexual harassment and sexual crimes	Considered wrong	34	97,1	35

Source: Research data.

The findings reveal a relatively strong foundation of knowledge and values, yet they also demonstrate that educational needs are not synonymous with a mere “lack of knowledge.” There remain respondents who do not yet grasp specific information or who obtain information from different sources. From a health literacy perspective, health competence encompasses not only the acquisition of information but also the ability to understand, evaluate, and utilize that information in decision-making (Makarova et al., 2020; Montero-Pons et al., 2023; Sørensen et al., 2012). The Theory of Planned Behavior (TPB) perspective helps explain why knowledge alone is insufficient. Attitudes, subjective norms, and perceived behavioral control are components that contribute to the formation of behavioral intentions (Ajzen, 1991). Consequently, the identified educational needs entail not merely the provision of additional factual information, but also the strengthening of the ability to interpret information and apply it within the context of daily life.

The most striking finding is that the respondents already possessed considerable normative awareness. For example, 97.1% regarded sexual harassment and sexual crimes as wrong, while 88.6% agreed that pornography could generate sexual urges and should be avoided. Furthermore, 71.4% demonstrated understanding of the relationship between menstruation and the possibility of pregnancy. These findings indicate that the educational need is not simply a matter of filling an information deficit. Nutbeam’s health-literacy framework is particularly useful here because health literacy extends beyond basic knowledge toward the ability to obtain, understand, critically assess, and use information for health-related action (Nutbeam, 2000).

Therefore, the 71.4% finding regarding menstruation and pregnancy suggests a need for reinforcement and contextualization, rather than merely repetition. Similarly, awareness of pornography risks should be transformed into the ability to recognize problematic content, evaluate information, manage exposure, and make responsible choices.

The findings concerning dating are equally important. While 71.42% considered student dating normal, 91.42% perceived contemporary dating styles as resembling adult behaviour. This combination suggests that perceptions of relationships are not necessarily simple or uniform. They may accept interpersonal relationships while simultaneously recognizing that contemporary forms of dating can involve more mature behavioural patterns. This finding reinforces the need for education that helps distinguish between knowledge, values, social expectations, and practical decisions. Rather than relying exclusively on normative statements, learning should create opportunities to analyse situations and understand why particular choices may produce particular consequences.

Social Environment and Information

The social and information environment presents a rather complex picture. Of the 34 valid respondents, 21 (61.8%) stated that they had accidentally encountered pornographic content on their mobile devices or televisions. Eleven respondents (32.4%) reported never having done so, while two respondents (5.9%) stated they had encountered it a few times. Regarding exposure to advertisements or broadcasts containing sexual content, 24 out of 35 respondents (68.6%) stated they had seen them accidentally, 9 respondents (25.7%) stated they never had, and 2 respondents (5.7%) stated they had.

Table 5. Social Environment, Peers, and Media Exposure

Indicator	Response	n	%	Valid N
Exposure to pornography through devices/television	Never	11	32,4	34
	Once, accidentally	21	61,8	34
	A few times	2	5,9	34
Exposure to pornographic advertisements/content	Never	9	25,7	35
	Accidentally	24	68,6	35
	Sometimes	2	5,7	35
Ability to select appropriate media content	Agree	33	94,3	35
Response to peers whose gender expression differs from perceived stereotypes	Advise the peer	23	67.65	34
	Do not care	11	32.35	34

Source: Research data.

These findings reveal a discrepancy between the belief in one's ability to select information and actual exposure experiences. While 33 respondents (94.3%) claimed to be capable of choosing appropriate content, 21 out of the 34 valid respondents (61.8%) had experienced accidental exposure to pornography. Such exposure cannot be equated with active searching or consumption; therefore, the data were not used to draw conclusions regarding the respondents' pornography-related behaviors. Nevertheless, from an educational standpoint, the findings indicate that individuals may encounter sexual content that is not entirely within their control. WHO identifies digital transformation as one of the emerging contexts shaping adolescent health and emphasizes the need for responsive approaches to contemporary adolescent environments. Recent research on web-based reproductive health education likewise indicates the growing importance of digital environments in adolescent health education, while emphasizing the need for theoretically grounded and appropriately designed interventions (WHO, 2025).

This situation highlights the importance of health literacy and the ability to evaluate the information environment. The capacity to select information must be complemented by the ability to recognize, assess, and respond to information encountered unintentionally. An ecological perspective further illustrates that

p-ISSN 2442-532X | e-ISSN 2528-4541
https://journal.unnes.ac.id/journals/jone

individual needs cannot be separated from the characteristics of the broader information environment (Bronfenbrenner, 1979).

Relationships, Social Development, and Perceptions

Data regarding relationships with friends or partners indicate that the respondents' experiences were primarily at the level of social interaction and interpersonal closeness. Of the 32 respondents who answered questions about behaviors engaged in with friends or partners, 28 (87.5%) reported holding hands, and 12 (37.5%) reported hugging. No responses indicated experiences involving pecking on the cheek, kissing, masturbation, or sexual intercourse.

Table 6. Relationship experiences with friends or partners

Behavior	n	%	Valid N
Holding hands	28	87.5	32
Pecking on the cheek	0	0.0	32
Hugging	12	37.5	32
Kissing	0	0.0	32
Masturbation	0	0.0	32
Sexual intercourse	0	0.0	32

Source: Research data.

Regarding the question of adult-style sexual intercourse with friends or romantic partners, 34 out of 35 respondents (97.1%) stated that the idea had never crossed their minds. One respondent (2.9%) expressed a desire but feared committing a sin. No responses indicated past or frequent engagement in sexual intercourse. These findings should be interpreted with caution, as they are based on self-reported answers from a limited sample size. The data indicate that relationship experiences within the study group have not yet extended to advanced sexual behaviors; however, there is a need to strengthen their capacity to set boundaries, understand the consequences of relationships, and maintain their decisions when facing social pressure (Lukasheva et al., 2024; Makarova et al., 2020).

Analysis Based on Developmental Age Groups

The 11–22 age range encompasses two developmental groups established in the study: adolescents (aged 11–19) and young adults (aged 20–22). The data indicate a relatively smaller number of respondents in the young adult category compared to the adolescent group. Consequently, differences between the two groups were not analyzed using inferential tests but were instead used to provide context for interpretation. For the younger age group, educational needs primarily relate to a basic understanding of reproductive health, the ability to manage social relationships, recognizing peer influence, and accessing accurate information. For the older age group, needs may relate to applying knowledge to decision-making and exercising independence within the social environment. However, as the available aggregate data were insufficient to yield a statistical comparison between the developmental groups, these interpretations are presented as descriptive implications rather than statistically proven differences.

Synthesis of Needs and the Formulation of ARHENF

The synthesis of needs was conducted by integrating findings from the five research dimensions. The first stage involved identifying key findings within each dimension. The second stage entailed identifying existing assets and areas requiring further strengthening. The third stage involved comparing findings across

dimensions to identify consistently emerging needs. The final stage consisted of organizing these results into a conceptual map of reproductive health education needs.

Table 7. Synthesis of Findings from the Five Dimensions

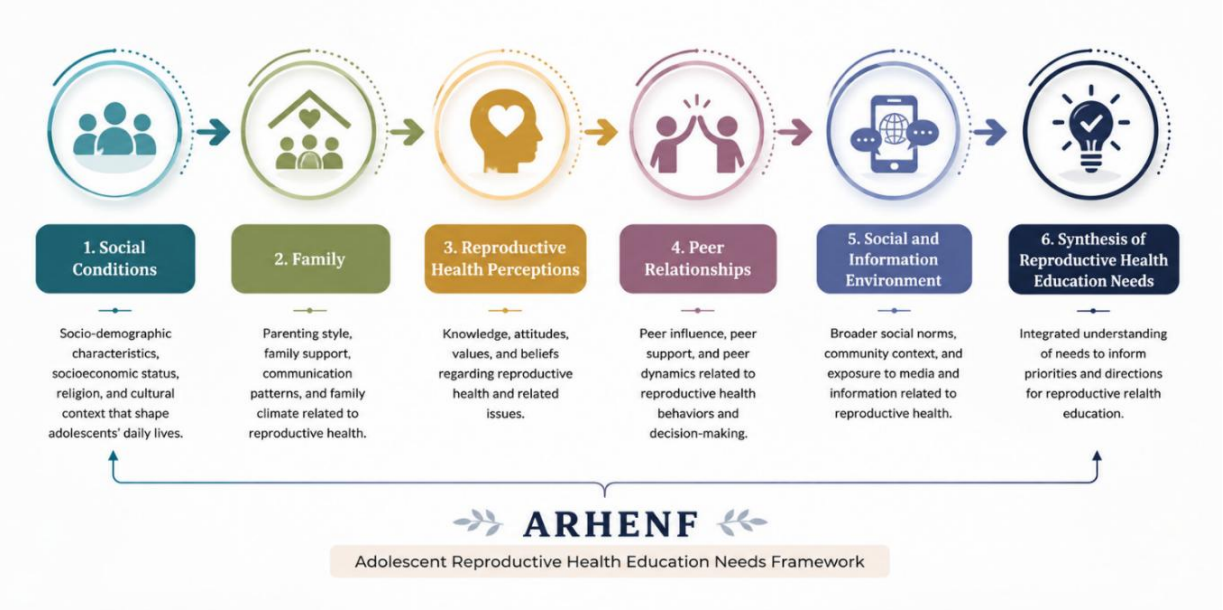
Dimension	Key empirical findings	Identified needs
Social conditions	100% stated they could choose their friends; 97.1% of valid responses stated they could refuse negative invitations	Strengthening capacity to handle social pressure and maintain decisions
Parenting and family communication	88.6% reported having democratic and flexible parents	Utilizing family support and strengthening reproductive health communication
Reproductive health perceptions	71.4% understood the link between menstruation and pregnancy; 88.6% agreed on the need to avoid pornography; 97.1% viewed sexual harassment/abuse as wrong	Strengthening literacy, clarifying information, and applying knowledge in context
Peer relationships	87.5% of valid responses reported holding hands; 37.5% reported hugging; ability to choose friends was very high	Strengthening personal boundaries, managing relationships, and responding to peer influence
Social and information environment	61.8% of 34 valid responses had accidentally seen pornography; 68.6% had accidentally seen sexual advertisements or content	Strengthening the ability to handle and evaluate exposure to information

Source: Researcher synthesis based on survey data.

Based on this synthesis, reproductive health education needs should be understood not merely as a lack of knowledge, but as a need to integrate knowledge, perceptions, social skills, family support, and the information environment. This illustrates the conceptual link between individual and environmental dimensions that forms the basis for developing the Adolescent Reproductive Health Education Needs Framework (ARHENF).

Conceptually, the ARHENF is formulated along the following flow:

p-ISSN 2442-532X | e-ISSN 2528-4541
https://journal.unnes.ac.id/journals/jone



Picture 1. The ARHENF Flow Design

In this study, the ARHENF represents an initial conceptual synthesis based on survey results, rather than a causal model or an empirically validated framework. The framework demonstrates that reproductive health education needs must be viewed as the outcome of interactions across various life contexts of the target group. Thus, program requirements for the next stage can be determined based on empirical evidence regarding the participants' conditions and environment, rather than solely on assumptions about their deficiencies.

The research findings reveal three significant patterns. First, respondents possess various forms of protective capital, specifically the ability to select appropriate content and peers, the capacity to reject negative influences, family support, and an awareness of the importance of avoiding risky behaviors and exposures. Second, there is a continuing need for reinforcement, particularly in bridging the gap between knowledge and real-life situations, managing interpersonal relationships (Bandura, 2001), and navigating an information environment that cannot be fully controlled. Third, these needs are ecological in nature, as they relate not only to individual characteristics but also to family, peer, and information environments (Kanyama & Lyakurwa, 2025; Zhang et al., 2019).

Findings regarding accidental exposure to sexual content highlight a crucial contextual factor. On one hand, the majority of respondents claimed to be capable of selecting appropriate media; on the other, most of those who answered the question had experienced accidental exposure. This situation demonstrates that individual capabilities and environmental characteristics do not always align. An ecological perspective helps explain why reproductive health education must consider broader social and informational contexts rather than focusing solely on individual capacity (Bronfenbrenner, 1979).

Meanwhile, the prevalence of democratic and flexible parenting styles indicates the presence of family capital that can support educational development. These findings align with the view that the family environment serves as a source of support and social learning. By fostering open and supportive communication, families can act as a vital source of information and backing when individuals face reproductive health issues (Salam et al., 2016). Overall, this study underscores that a needs assessment is a critical step prior to developing reproductive health education programs. Survey results indicate that the target group should not be viewed merely as lacking knowledge; they possess social capital, perceptions, and family support that can serve as a starting point for development. Simultaneously, there is a need to strengthen the ability to apply knowledge when navigating social relationships, peer pressure, and the information environment. This synthesis forms the conceptual basis for ARHENF.

CONCLUSION

This research shows that the need for reproductive health education in adolescents and early adults is multidimensional and cannot be understood simply as a lack of knowledge. These needs are related to individual social conditions, parenting and family communication patterns, perceptions of reproductive health, peer relationships, as well as the social and information environment. The survey results also show that the target group has a number of positive assets, such as the ability to choose friends, the ability to refuse negative invitations, support for a relatively democratic family parenting style, as well as a positive understanding and perception of a number of aspects of reproductive health. At the same time, there is still a need for strengthening in understanding and applying information, dealing with social influences, building supportive communication, and responding to an information environment that is not always within an individual's control. These findings emphasize that analysis of reproductive health education needs needs to consider the relationship between individual characteristics and their living environment, not just identifying what the target group does not know. The synthesis of five research dimensions resulted in the Adolescent Reproductive Health Education Needs Framework (ARHENF) as an initial conceptual synthesis that describes the relationship between the conditions of the target group and the identified educational needs. ARHENF is not a causal model or framework that has been empirically validated, but is a conceptual map based on survey findings that can be used as a basis for program development at the next stage.

Thus, the main contribution of this research lies in providing an evidence base for the need for community-based reproductive health education that combines aspects of the individual, family, peer relationships, as well as the social and information environment. These results provide a more contextual basis for determining priorities for reproductive health education programs for adolescents and early adults, while also emphasizing the importance of making needs analysis an initial stage before program development and testing is carried out.

ACKNOWLEDGEMENT

The authors would like to express their sincere gratitude to the Institute for Research and Community Service (LPPM), Universitas Pendidikan Indonesia (UPI) for its institutional support and contribution to the implementation of this research. The authors also extend their appreciation to all participants and relevant parties who contributed to the data collection and provided valuable support throughout the research process. Their cooperation and participation were essential to the completion of this study.

REFERENCES

Afridah, W., Ibad, M., Umamah, F., & Fitriyah, F. K. (2023). Self-awareness of health students as peer educators of adolescent reproductive health. *Bali Medical Journal, 12*(3), 2792–2796. https://doi.org/10.15562/bmj.v12i3.4377

Agyei, F. B., Kaura, D. K., & Bell, J. D. (2025). Parent-adolescent sexual and reproductive health information communication in Ghana. *Reproductive Health, 22*, Article 25. https://doi.org/10.1186/s12978-025-01961-y

Ahi, G. G., Rahman, M. M., Ramli, R., Safii, R., Minoi, J. L., Li, S. C. H., Shminan, A. S. B., & Choi, L. J. (2025). Adolescent sexual and reproductive health knowledge and behavior: A scoping review of interventions. *Public Health of Indonesia, 11*(4), 22–32. https://doi.org/10.36685/phi.v11i4.1070

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Prentice-Hall.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology, 52*, 1–26. https://doi.org/10.1146/annurev.psych.52.1.1

p-ISSN 2442-532X | e-ISSN 2528-4541
https://journal.unnes.ac.id/journals/jone

Barral, R. L., Brindis, C. D., Hornberger, L., Trent, M., Sherman, A. K., Ramirez, M., Finocchario-Kessler, S., & Ramaswamy, M. (2023). The perfect storm: Perceptions of influencing adults regarding Latino teen pregnancy in rural communities. *Maternal and Child Health Journal, 27*(4), 621–631. https://doi.org/10.1007/s10995-023-03627-2

Benton, A. D., Santana, A., Vinklarek, A. J., Lewis, C. M., Sorensen, J. M., & Hernandez, A. (2020). Peer-led sexual health education: Multiple perspectives on benefits for peer health educators. *Child and Adolescent Social Work Journal, 37*(5), 487–496. https://doi.org/10.1007/s10560-020-00661-9

Bronfenbrenner, U. (1979). *The ecology of human development.* Harvard University Press.

Denno, D. M., Hoopes, A. J., & Chandra-Mouli, V. (2015). Effective strategies to provide adolescent sexual and reproductive health services and to increase demand and community support. *Journal of Adolescent Health, 56*(1), S22–S41. https://doi.org/10.1016/j.jadohealth.2014.09.012

Ekwueme, C. N., Okeke, C., Eze, I. I., Mbachu, C. O., & Onwujekwe, O. (2024). To what extent did implementing a community-embedded intervention align with the goals and roles of stakeholders in adolescent sexual and reproductive health? *Reproductive Health, 21*, Article 27. https://doi.org/10.1186/s12978-024-01753-w

Elnasharty, A. R. M., Koabar, S. M. M., Shalaby, S. E., & Kabbash, I. A. (2026). Knowledge, attitudes, and practices towards reproductive health among secondary school girls, Tanta City, Egypt. *Discover Public Health, 23*, Article 42. https://doi.org/10.1186/s12982-026-01373-8

Fleary, S. A., Joseph, P., & Pappagianopoulos, J. E. (2018). Adolescent health literacy and health behaviors: A systematic review. *Journal of Adolescence, 62*, 116–127. https://doi.org/10.1016/j.adolescence.2017.11.010

Gogoi, A. (2023). Case study: "UDAAN: Towards a better future …," an adolescent education program in Jharkhand. In M. Arora & S. Goenka (Eds.), *Public health approaches to health promotion* (p. 142). Routledge. https://doi.org/10.1201/b23385-25

Haberland, N. A., McCarthy, K. J., & Brady, M. (2018). A systematic review of adolescent girl program implementation in low- and middle-income countries: Evidence gaps and insights. *Journal of Adolescent Health, 63*(1), 18–31. https://doi.org/10.1016/j.jadohealth.2017.11.294

Haruna, H., Zainuddin, Z., Mellecker, R. R., Chu, S. K. W., & Hu, X. (2019). An iterative process for developing digital gamified sexual health education for adolescent students in low-tech settings. *Information and Learning Sciences, 120*(11/12), 723–742. https://doi.org/10.1108/ILS-07-2019-0066

Iswanto, R. K. D., Shaluhiyah, Z., Widjanarko, B., & Purnami, C. T. (2026). Parental perceptions of the need for sexual and reproductive health education for early adolescents. *Public Health of Indonesia, 12*(1), 1–13. https://doi.org/10.36685/phi.v12i1.1089

Kanyama, A. Y., & Lyakurwa, S. E. (2025). Self-awareness life skills and risky sexual behaviours among primary school adolescents in Tanzania. *Health Education, 125*(4), 507–534. https://doi.org/10.1108/HE-01-2025-0013

Khalesi, Z. B., Sigaroudi, A. E., & Farmanbar, R. (2020). Participatory action research approach to improve adolescent girls' reproductive health. *JBRA Assisted Reproduction, 24*(4), 416–420. https://doi.org/10.5935/1518-0557.20200034

Kim, C. R., & Free, C. (2008). Recent evaluations of the peer-led approach in adolescent sexual health education: A systematic review. *International Family Planning Perspectives, 34*(2), 89–96. https://doi.org/10.1363/3408908

Lahope, G., & Fathurrahman, R. (2024). Current state, challenges, and opportunities of school-based sexual and reproductive health education in Indonesia: A systematic literature review. *Preventia: The Indonesian Journal of Public Health, 9*(1), 81–94. https://doi.org/10.17977/um044v9i12024p81-94

Lim, W. M. (2025). What is quantitative research? An overview and guidelines. *Australasian Marketing Journal, 33*(3), 325–348. https://doi.org/10.1177/14413582241264622

Lukasheva, O. V., Makarov, K. Y., Bortsov, V. A., Sokolova, T. M., & Yur'yeva, T. A. (2024). Reproductive behavior of adolescent girls: Analysis of risk factors, prospects of prevention and education. *I. P. Pavlov Russian Medical Biological Herald, 32*(2), 179–190. https://doi.org/10.17816/PAVLOVJ626329

Makarova, V. I., Pavlova, A. N., & Makarova, A. I. (2020). Risk factors affecting the health of adolescents of Russia and the USA: A literature review. *Ekologiya Cheloveka (Human Ecology), 27*(7), 40–46. https://doi.org/10.33396/1728-0869-2020-7-40-46

Montero-Pons, L., Rodríguez-Martín, D., Esquinas, C., García-Sierra, R., Manresa-Domínguez, J. M., Reyes-Lacalle, A., Cabedo-Ferreiro, R., Vicente-Hernández, M., Gómez Masvidal, M., Toran-Monserrat, P., & Falguera-Puig, G. (2023). Adolescents and young adults evaluating a website for affective-sexual information and education: Multicenter cross-sectional study. *Journal of Medical Internet Research, 25*, e49962. https://doi.org/10.2196/49962

Nair, M. K. C., Leena, M. L., George, B., Thankachi, Y., & Russell, P. S. S. (2013). ARSH 5: Reproductive health needs assessment of adolescents and young people (15–24 years): A qualitative study on perceptions of community stakeholders. *Indian Journal of Pediatrics, 80*(Suppl. 2), S214–S221. https://doi.org/10.1007/s12098-013-1141-5

Nasution, S. L., Kistiana, S., Gayatri, M., & Naibaho, M. M. P. (2022). Reproductive health knowledge among adolescents in Indonesia: The role of family structure. *The Family Journal*. Advance online publication. https://doi.org/10.1177/10664807221090950

Nutbeam, D. (2000). Health literacy as a public health goal: A challenge for contemporary health education and communication strategies into the 21st century. *Health Promotion International, 15*(3), 259–267. https://doi.org/10.1093/heapro/15.3.259

Salam, R. A., Faqqah, A., Sajjad, N., Lassi, Z. S., Das, J. K., Kaufman, M., & Bhutta, Z. A. (2016). Improving adolescent sexual and reproductive health: A systematic review of potential interventions. *Journal of Adolescent Health, 59*(4, Suppl.), S11–S28. https://doi.org/10.1016/j.jadohealth.2016.05.022

Shahhosseini, Z., & Hamzehgardeshi, Z. (2015). Female adolescents' perspective about reproductive health education needs: A mixed methods study with explanatory sequential design. *International Journal of Adolescent Medicine and Health, 27*(1), 57–63. https://doi.org/10.1515/ijamh-2014-0008

Sørensen, K., Van den Broucke, S., Fullam, J., Doyle, G., Pelikan, J., Slonska, Z., & Brand, H. (2012). Health literacy and public health: A systematic review and integration of definitions and models. *BMC Public Health, 12*, Article 80. https://doi.org/10.1186/1471-2458-12-80

Tituaña, A., Wilson-Barthes, M., Desrosiers, A., Jardine, S. J., Srinivasan, M., Palacios, I., & Galárraga, O. (2026). Adaptation, acceptability and preliminary impacts of a sexual health and financial literacy intervention for Indigenous adolescents in Ecuador: A mixed-methods pilot study. *Public Health, 251*, Article 106088. https://doi.org/10.1016/j.puhe.2025.106088

Walsh, F. (2016). Family resilience: A developmental systems framework. *European Journal of Developmental Psychology, 13*(3), 313–324. https://doi.org/10.1080/17405629.2016.1154035

Yusuf, W., Septiani, R., Ariscasari, P., Mairani, T., Arlianti, N., Naimah, N., Menawati, M., Gusweni, M., Hamisah, I., & Aran, S. F. I. (2025). Reproductive health literacy among female adolescents in Banda Aceh: A descriptive study. *Media Publikasi Promosi Kesehatan Indonesia (MPPKI), 8*(9), 899–909. https://doi.org/10.56338/mppki.v8i9.6575

Watkins, R., Meiers, M. W., & Visser, Y. L. (2012). *A guide to assessing needs: Essential tools for collecting information, making decisions, and achieving development results.* World Bank. https://doi.org/10.1596/978-0-8213-8868-6

World Health Organization. (2025). *Competency and outcomes framework for adolescent health and well-being.* https://www.who.int/publications/i/item/9789240115736

Xu, T. Y. (2025). *How to understand and design quantitative survey research.* SAGE Publications. https://doi.org/10.4135/9781036223366

Zhang, X.-D., Luk, S. C. Y., Han, Y.-H., Chen, G.-R., Zhang, G.-L., Zhu, B.-S., & Luchters, S. (2019). Ethical considerations for conducting sexual and reproductive health research with female adolescents engaged in high-risk behaviours in China. *Sexual & Reproductive Healthcare, 20*, 46–53. https://doi.org/10.1016/j.srhc.2019.02.005