Original Article

The Impact of a Psychoeducation Programme to Enhance Communication on Menstrual Health Among Mothers of Pre-menarche Daughters Using a Phenomenological Approach

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Abstract

Background: Studies show that mothers are the primary informants of female adolescents about reproductive health, suggesting that they need effective communication skills and stay informed about the physical and emotional changes they undergo, as discussing reproductive health issues can be challenging and uncomfortable. The current investigation demonstrates the effectiveness of a psychoeducational programme within the context of a post-psychoeducation research analysis.

Method: The qualitative study employed a pre- and post-intervention phenomenological research design. The study recruited mothers of pre-menarche girls in urban Bengaluru using purposive sampling methods. The participants were categorised into six groups based on education and language proficiency. They participated in focus group discussions before and after a psychoeducation programme. The programme assigned a 2-week homework task focused on conversations about menstruation with daughters. Subsequent to the programme, the groups reassembled for further discussions. Thematic analysis was conducted by a qualitative analyst using Atlas ti after the data was transcribed.

Outcome: The post-psychoeducation phase results indicate that mothers effectively communicated about menstruation to their daughters. A mediated communication platform facilitated this exchange, featuring bidirectional dialogue where mothers responded to their daughters' reactions, providing comfort and reassurance. Additionally, mothers felt more prepared to discuss menstruation following their psychoeducation training.

Implications of the study: Schools and organisations should establish reproductive health courses for parents, emphasising emotional support for daughters during menarche and preparing for related emotional changes. Creating a menstrual attitude scale for the Indian population to assess perceptions of menstruation, therefore providing women and girls with essential knowledge and assistance to accept their bodies.

Keywords

Mothers with pre-menarche daughters, menstrual health education, menstrual communication, psychoeducation of premenstrual mothers

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Introduction

The reverence of menstruation is rooted in a bond between a mother and her daughter; in particular, menarche, the first period.[1] At the beginning of a girl's first menstrual cycle, the mother is almost always the primary and most important

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caretaker for the girl. Health care providers underlined the significance of mothers as the most reliable sources of information for adolescent girls.[2] Numerous studies conducted throughout Indian states, covering both rural and urban districts, have revealed mothers as the key informants of menstruation. However, studies suggest that mothers, who are presumably the primary sources of information for adolescent girls regarding menstruation, exhibit a deficiency in knowledge and awareness about menstruation.[3–10] Research on menstrual hygiene,[11] discovered that illiterate mothers have a limited grasp of reproductive health practices and menstrual cleanliness.

The mother's role as a primary informant and respondent is a difficult one to fulfil. In light of the fact that their daughters are entering the adult sexual world, mothers are required to address the matter. It is possible that her own childhood experiences, inhibitions, fears, and difficulties will inhibit the way she interacts with her daughter when she reaches menarche.[12] Menarche is often overlooked in relation to fertility and childbirth due to fear of young women becoming sexually aware, which also contributes to mothers' reluctance to discuss menstruation with their daughters.[13] Mothers have said that they find it difficult to talk to their daughters about menstruation,[14,15] frequently because their own mothers did not engage in conversation with them, and as a result, they do not have a model for how to have a good conversation, or they believe that they do not have the knowledge to answer the questions that their daughters might ask.[16] Mothers may not be prepared to teach their daughters, even if they possess adequate knowledge. Embarrassment, social taboos, social bans, and mothers' undesirable attitudes about discussing menstruation are major contributing factors. An unhealthy mother-daughter relationship can also prevent or restrict an adolescent girl's access to the most trustworthy information sources. This can result in incomplete and erroneous information from outside sources and, eventually, lead to problems with her health and wellness.[17]

A collective commitment to improve menstrual health and hygiene (MHH) is a critical factor in determining whether or not global targets as suggested by the Sustainable Development Goals for Sexual and Reproductive Health (SRH) would be met for MHH.[18] Although menstrual health is an anchor for SRH, governments, policymakers, and non-governmental organisations (NGOs) rarely include it in their agendas for SRH. Research studies[19–21] examined education policy documents from 21 different developing countries and found minimal attention to menstrual health. The primary focus was on the distribution of disposable sanitary pads to secondary school girls. Other aspects of menstrual health receive insufficient attention.

Studies have shown that menstrual health education in India has been studied from a WASH (water, sanitation, and hygiene) perspective[18]; however, socio-cultural issues, on the other hand, are of equal significance, and it is absolutely essential that sufficient attention be paid to them.[18] Many studies[22–27] have recommended in their suggestion chapter for future research to incorporate various methods to build on mother-daughter communication during puberty. Education on these subjects should be ongoing and long-term, starting before menarche and continuing for a considerable period thereafter.[28]

The primary objective of this study was to investigate the effects of a psychoeducation programme aimed at mothers of pre-menarche daughters. The study was designed to determine the impact of this programme on communication about menstrual health between mothers and their daughters. The qualitative research employs a pre- and post-psychoeducation phenomenological approach. The study consists of three phases: a pre-psychoeducation needs assessment phase, the implementation of psychoeducation, and a post-psychoeducation phase.

The current study presented below includes exclusively the results and discussion pertaining to the post-psychoeducation or outcome evaluation phase. The post-psychoeducation phase captures the mothers' narratives of their lived experiences in discussing menstruation with their pre-menarche daughters after undergoing psychoeducation sessions.

Method

Research Design

The qualitative study employed a pre- and post-intervention phenomenological research design.

Sampling

The study aimed to recruit mothers of pre-menarcheal girls in urban Bengaluru, focusing on both literate and illiterate populations. The average age for girls' first menstrual period is presently 10–11 years.[12,29,30] The research required mothers with daughters aged eight or older, in fourth grade or higher, and who had not yet started menstruating. The following were the inclusion criteria: mothers with pre-pubertal daughters. Mothers who consented to participate in the intervention programme. Mothers residing within Bengaluru urban district. Exclusion criteria included: Mothers with pre-existing mental health issues. Mothers with daughters who have attained menarche. The purposive sample selection was conducted by one group using an advertisement technique, while the other five groups employed an organisational recruitment method. Focus groups are homogeneous yet diverse, allowing participants to express contrasting viewpoints. Researchers refrained from grouping participants with varying knowledge or power levels to create an atmosphere for comfortable discussion.[31] In this study, groups spoke Urdu, Kannada, Tamil, and English, with literacy levels maintained. Groups one, two, three, and four consisted of participants who dropped out of school and completed 10th grade, while groups five and six included those with graduation qualifications (Table 1).

Table 1. The Method of Recruitment and Characteristics of Focus Groups.

Focus Group Characteristics	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Recruitment process	Respondents were recruited from a women's empowerment programme run by a non-governmental organisation.	Respondents were recruited from a women's empowerment programme run by a non-governmental organisation.	Respondents were recruited from a school.	Respondents were recruited from a school.	Respondents were recruited from a non-governmental organisation.	An online flyer was distributed throughout online communities, and mothers who met the requirements were selected as respondents.
Education level	School dropouts, 10th Std, 12th Std, diploma in education.	School dropouts, 10th Std, 12th Std, diploma in education.	School dropouts, 10th Std, 12th Std, diploma in education.	School dropouts, 10th Std, 12th Std, diploma in education.	Graduation and above.	Graduation and above.
Languagesspoken	Urdu	Urdu	Tamil	Kannada	English	English

Procedure

The intervention mapping model[32] was employed as a framework for creating the intervention, covering each phase from pre- to post-psychoeducation. The current study has been organised into three distinct phases (Figure 1).

The first phase involved conducting semi-structured interviews to obtain responses from focus group discussions as part of the needs assessment. The semi-structured interviews, which served as the questioning route for the focus group discussions, were developed adhering to suggested guidelines.[31,33]

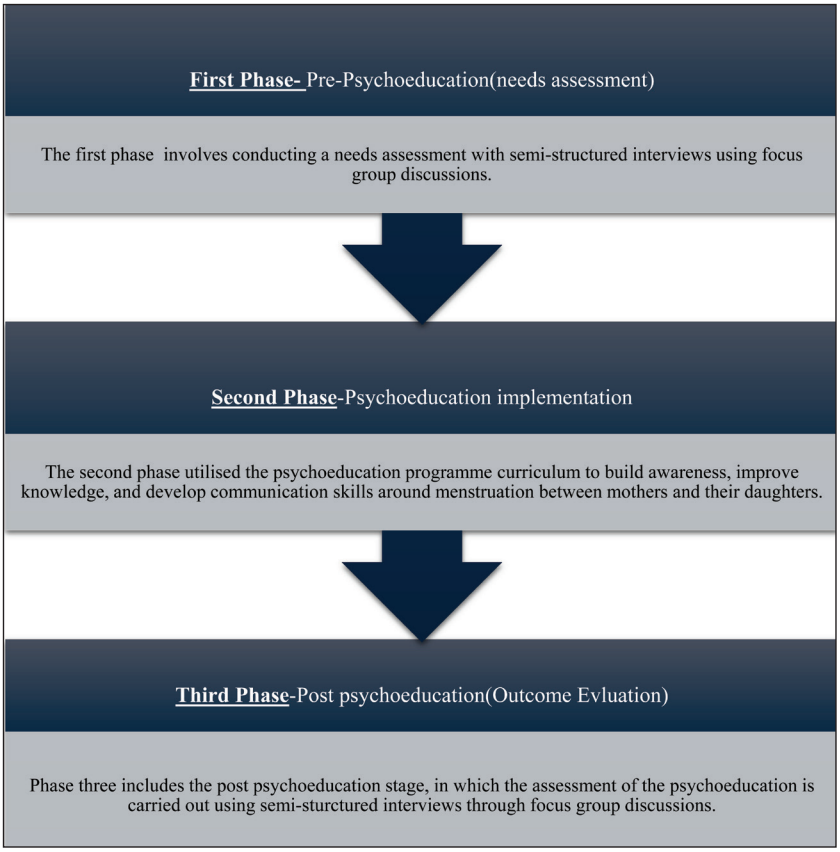

Figure 1. Delineates the Three Phases of Psychoeducation.

Table 2. Outline of the Psychoeducation Programme Curriculum.

Session No	Session Objectives	Activities Used	Approximate Time in Minutes
Session 1	Helping respondents connect with their own menarche experience.	Imaginary journey, artwork and sharing with the group.	105 mins
Session 2	Knowledge and information building.	Worksheets, discussions, puzzles and videos.	120 mins
Session 3	Communication skills.	Brainstorming, goal planning, role plays, Homework activity.	135 mins

Phase 2 utilises the psychoeducation programme curriculum to enhance awareness, knowledge, and communication skills related to menstruation.

The World Health Organisation and UNICEF provide resources on MHH, and several research studies[22,24–27] have focused on parent-child communication about sex and reproductive health. A literature review[22,24–27] has identified factors influencing mothers' attitudes towards menstruation and their communication with daughters. This helped in selecting theoretical techniques and practical strategies for psychoeducational content (Table 2). The literature evaluation examined previous programs[34–37] to identify effective methods and avoid obstacles from similar interventions for SRH. The present study employed referenced research to design an intervention strategy aimed at improving awareness, understanding, and communication on menstruation between mothers and daughters prior to menarche.

The evaluation step, also known as Phase 3 in intervention mapping, is a crucial process in programme design, involving a needs assessment to assess the effectiveness of interventions.[32] The primary objective of the third phase, following the psychoeducation, was to evaluate the impact of the psychoeducation on the mothers' ability to discuss menstruation with their daughters. A questioning route for the focus group discussions was developed adhering to guidelines suggested.[31,33] The key component of the evaluation involved capturing narratives of the lived experiences of mothers discussing menstruation with their daughters. Focus group discussions was employed as a means of collecting information.

Semi-structured interview guide-which served as the questioning route for the focus group discussions, were developed adhering to guidelines suggested.[31,33] The questioning route created by the researcher was sent for expert evaluation to professor of Gender Studies. Suggested feedback to incorporate mothers' experiences into the question guide, was duly incorporated. A pilot study[38] was conducted, and modifications were made to the questioning route in response to the feedback provided by the participants.

Translation of the Psychoeducation Programme Material

The psychoeducational material was developed in English and translated into Kannada and Tamil by native speakers. The programme includes activities like guided journeys, creative tasks, brainstorming sessions, and worksheets. Due to the population being school dropouts, the instructions were translated into colloquial Kannada and Tamil instead of academic literary style. The NGO's on-field social worker provided oral translations of the content into colloquial spoken Urdu (Dakhini). The researcher and social worker conducted the sessions in Urdu for the Urdu-speaking respondents. The curriculum was delivered in oral format, as participants included those who had discontinued education and those who had finished up to the 10th standard.

Validity of the psychoeducation programme: The content validity was established through a consensus of subject matter experts and corroborated by secondary sources, including referenced published publications and materials. The research sought to assess the effect of the psychoeducation programme on maternal attitudes around menstruation, without establishing the psychometric features of the programme. This may be seen as a limitation of the research investigation.

The psychoeducation programme aimed to promote dialogue about menstruation between mothers and their pre-menarche daughters. Mothers were given a 2-week time frame to engage in communication, and 46 respondents participated in the outcome evaluation. A focus group discussion was held to gather the lived experiences of mothers who communicated about menstruation with their pre-menarche girls post-intervention.

Table 3 shows Phase 3 post-intervention dropout rates for each of the six groups. Dropout was attributed to a range of personal and practical challenges. Three participants conveyed that their spouses prohibited them from engaging in discussions on topic with their daughters. Two respondents believed it was best for the school and teachers to handle the topic with their daughters. One respondent reported it would overwhelm her daughter and decided to address it after her daughter attains menarche. Additionally, a viral infection-induced illness caused one respondent to miss the post-intervention focus group discussion. In total, 46 participants across the six groups were able to engage in focus group discussions facilitated by the researcher.

Data collection using focus group discussions: The study aimed to gain in-depth insight into the experiences of mothers with pre-menarche daughters in Bengaluru, through six focus group discussions, involving 6–10 mothers in each group (Table 4).

Table 3. The Number of Participants in Each Focus Group.

Focus Group Number	Focus Group Number 1	Focus Group Number 2	Focus Group Number 3	Focus Group Number 4	Focus Group Number 5	Focus Group Number 6
Number of participants Phase 1 (needs assessment) *N* = 53	10	10	8	10	9	6
Number of participants Phase 3 (outcome evaluation) *N* = 46	9	8	8	8	7	6

Table 4. Indicates Post-psychoeducation Interview Time Taken for Each of the Focus Groups.

Focus Group Number	Focus Group Number 1	Focus Group Number 2	Focus Group Number 3	Focus Group Number 4	Focus Group Number 5	Focus Group Number 6
Number of participants Phase 3 (outcome evaluation) *N* = 46	9	8	8	8	7	6
Time taken for interview Phase 3	75 mins	68 mins	70 mins	60 mins	60 mins	50 mins

Data Analysis

The researcher captured focus group discussions using an audio recorder and transcribed them verbatim. A qualitative research analyst performed thematic analysis on the verbatims taken from the discussions that took place across the six focus groups using Atlas ti software.[39,40] The following steps of the thematic analysis approach[41,42] were followed: creation and familiarisation of data; identification of keywords; selection of codes; development of themes; conceptualisation through interpretation of keywords, codes, and themes; and triangulation of data.

Validity and Reliability of Data

Investigator triangulation was implemented during the data collection and analysis processes, involving two field investigators who contributed to both gathering and validating the data. The analysis of verbatim transcripts was conducted by an external research analyst using Atlas ti software. Furthermore, the study included the participation of two research supervisors alongside the principal researcher. The data was examined by an external research analyst and evaluated by two additional research supervisors. Consequently, minimising researcher bias and enhancing the credibility and validity of the findings.

Results

The baseline characteristics of the respondent mothers (N = 53) with pre-menarche girls is illustrated below (Table 5).

The pre-psychoeducation needs assessment phase highlighted two themes and several sub-themes summarised below:

The theme perception of menstruation showed that mothers regarded menarche as a critical period, which included the responsibility for their daughters' physical and emotional well-being. Mothers, who had experienced their own menstrual difficulties, endeavoured to alleviate their daughters' distress by fostering a supportive and compassionate atmosphere. They intentionally chose to shield their daughters from their own monthly distress, instead providing them with comfort and informed advice. Mothers expressed a desire for their daughters to reach menarche at an appropriate age, as they believe that this would facilitate their adaptation by enabling them to learn from their peers and cultivate a positive perspective on this significant milestone.

The theme of communication has described the challenges and concerns faced by mothers. Mothers with low levels of education displayed inadequate biological knowledge regarding menstruation. They felt that they lacked sufficient knowledge to address their daughters' questions. Mothers, regardless of their educational background, encountered difficulties in initiating conversations and experienced discomfort when discussing menstruation with their daughters. They expressed difficulty in determining the appropriate amount of information to impart to their daughters. Mothers highlighted the value of self-care and menstrual hygiene while also expressing concerns regarding the management of menstruation, especially in public settings such as schools.

The pre-psychoeducation analysis reveals themes reflecting the challenges faced by mothers of prepubescent girls. Phase 2 entailed the implementation of a psychoeducation programme, followed by a post-psychoeducation assessment, as outlined below.

Table 5. Baseline Characteristics of the Respondents.

Age Range of Respondents	**27–29 yrs**	**30–35 yrs**	**36–40 yrs**	**41–45 yrs**	**46 yrs**	**–**
No: of respondents (*N* = 53)	8	22	12	10	1	–
Age of the respondent's daughter	8 yrs	9 yrs	10 yrs	11 yrs	12 yrs	13 yrs
No of respondents (*N* = 53)	8	5	9	18	11	2
Educational qualification of respondents	Education discontinued-School dropouts	SSLC 10th Std	2nd pre-university 12th Std	Diploma	Graduation	Post- graduation
No of respondents (*N* = 53)	12	11	4	11	8	7
Religion practised by respondents	Hinduism	Islam	Christianity	Atheist	–	–
No of respondents (*N* = 53)	25	17	10	1	–	–
Language spoken by the respondents	Kannada	Tamil	Urdu	Telugu	Malayalam	Hindi
No of respondents (*N* = 53)	9	11	17	7	5	4
Occupation of the respondents	Homemaker	Teacher	Domestic help	IT industry	Self employed	Government sector
No of respondents (*N* = 53)	30	9	5	5	3	1
Marital status	Married	Separated	Widowed	–	–	–
No of respondents (*N* = 53)	51	1	1	–	–	–
Living arrangement of respondents	Nuclear family	Joint family	Living with in-laws	Living with parents	Separated	–
No of respondents (*N* = 53)	41	7	3	1	1	–

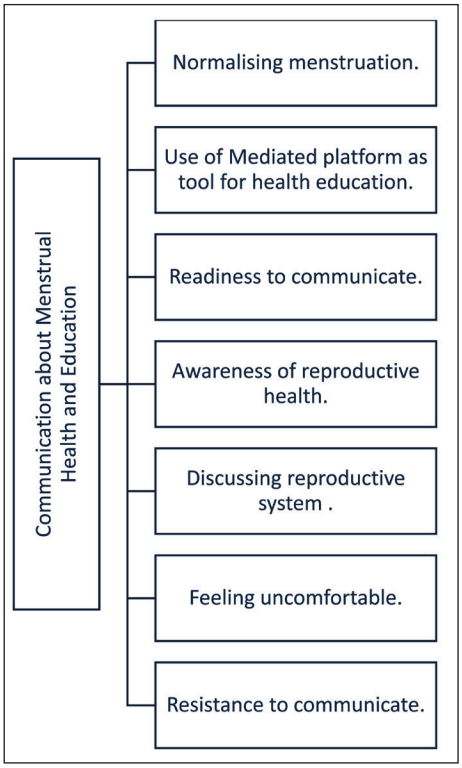

Figure 2. Themes of Post-psychoeducation Analysis.

The post-intervention thematic analysis shows seven themes that have emerged under the superordinate theme of communication about menstrual health and education (Figure 2).

The seven themes are outlined below, providing a description of each theme along with verbatim responses from participants (Table 6).

Discussion

The superordinate theme that emerged from the post-psychoeducation phase is communication about menstrual health and education. Seven themes have been identified from the post-psychoeducational analysis, which are discussed in detail below.

Normalising Menstruation

Mothers believe normalising menstruation for daughters is crucial to address feelings of fear or disgust. They explain it as a natural part of maturing and a developmental stage for all girls. They portray menstruation positively, referring to it as a natural gift, a sign of good health, and a symbol of

Table 6. Themes Are Outlined, Providing a Description of Each Theme Along with Verbatim Responses from Participants.

Themes	Definition of Themes	Quotations
Normalising menstruation	Mothers emphasised that menstruation is a natural and normal process that happens to all girls. They reassured their daughters that it was a normal part of growing up and becoming a woman. Mothers hoped to eliminate any stigma or shame associated with menstruation.	'They know about sanitary pads, so I told her about it, and she asked me is it going to happen now, I said no. Usually, it's after 9 years, initially, there was fear she said blood, mummy blood. Is this normal, does it happen to all'. [R3FG5, 38 years old, Graduate, Trainer]
		'She was like such chee chee talk ma, let's not speak about it so I told her nothing chee chee about it, if you are born a girl then periods is something that will happen to her. If a girl comes of age, it's the beauty of womanhood is what I told her'. [R1FG4, 33 years old, school dropout, domestic help].
Use of mediated platforms as a tool for health education	Mothers used technology as a support tool to aid in their daughters' education. They communicated menstrual health information through YouTube videos. Additionally, they offered clear explanations using the resources provided during the intervention.	'I used this opportunity to take her to the entire process of egg release and all that. Why do we bleed, so I did use one of those YouTube links'. [R3FG6, 40 years old, Postgraduate, Researcher]
		'I used a picture from phone and explained to her in simple language'. [R3FG1, 28 years old, Dip in education, Teacher]
		'I found a video about it on YouTube, saw it together, used the picture to explain to her'. [R8FG2, 34 years old, Graduate, Teacher].
Readiness to communicate reproductive health	The intervention programme was beneficial, according to mothers, who felt more equipped to talk to their daughters about it. They were pleased that their daughters would not experience the same unpleasant emotions as they did when they reached menarche; instead, they would understand that the blood they spotted was just a natural part of their body's transition. Mothers appreciated the communication's contribution to the development of a strong mother-daughter bond.	'I know for sure that now if anything happens to her, she will know what it is, and I am sure she will not get any tension. I have at least 50% relief that I have spoken to her'. [R1FG5, 40 years old, Graduate, Trainer]
		'I like it that I could make my daughter understand the entire thing before she gets it. I told her if someone had explained it to us, I also would have been very happy about it'. [R1FG2, 30 years old, School dropout, Saleswoman]
		'It's a feeling of relief, happiness and a feeling of bond that has been created with our daughters which unfortunately I couldn't form with my mom'. [R3FG5, 38 years old, Graduate, Trainer]
		'When I was small, I was scared to tell my mother about it, now when my daughter gets it, she would feel comfortable talking about it to me. She should not hesitate to approach me'. [R9FG4, 30 years old, School dropout, Homemaker].
Awareness of reproductive health	Mothers received education and information regarding the menstrual cycle, flow, and reproductive system. Learning about menstruation from a scientific perspective helped them understand that menstrual blood is 'not impure or dirty'.	'I learnt one thing mam, I thought this was bad blood, impure blood getting out of the body but now I've understood that this is not bad blood its part of the body itself'. [R3FG4, 33 year old, 10th Std, Domestic Help]
		'Actually, even after children I didn't know we have three holes, I thought its two. Even how babies are formed I did not know until now'. [R1FG4, 33 years old, school dropout, domestic help]
		'I did not even know why we get periods; family told us that it is bad blood. Now we learnt what exactly happens inside our body, this makes me feel good'. [R4FG1, 28 years old, 10th Std, Teacher].

(Table 6 continued)

(Table 6 continued)

Themes	Definition of Themes	Quotations
Discussing the reproduction system	Mothers discussed the basic concept of reproduction. They provided age-appropriate information about the role of eggs and sperm in the process. Mothers aimed to give their daughters a basic understanding of reproduction without going into explicit details.	'I discussed the basic concept of reproduction, explaining that multiple ingredients are needed for a baby to be made'. [R3FG6, 40, Postgraduate, Researcher]
		'Started with can she identify male and female body parts, what does she understand of their biological functions? Then we spoke about periods? The flow, cycle and all, it was a conversation'. [R4FG6, 40 years old, Postgraduate, Homemaker]
		'I showed her the picture of the uterus and explained everything. What are periods, how does it happen? Before the age of 10 how our bodies are the same and then afterwards how the bodies of boys and girls change'. [R3FG3, 36 years old, Dip in Education, Tuition Teacher].
Feeling uncomfortable	Mothers delivered the necessary details despite feeling uncomfortable talking about particular elements of menstruation, such as sexual intercourse. Mothers expressed feeling uncomfortable and reluctant to discuss reproductive health. Some mothers sensed similar feelings in their daughters, who also expressed hesitancy to receive information from mothers about reproductive health.	'I was feeling shy talking about it, couldn't give her more information (laughing)'. [R6FG1, 34 years old, 10th Std, Homemaker]
		'She is still a small girl; I could not tell her everything openly, but I told her that if there is any body pain or discomfort come and tell me about it'. [R1FG1, 34 years old, school dropout, homemaker]
		'I felt it was very difficult, even though she is a child of mine, even though she will become a woman in the future I need to update her, still I don't know what made me hesitate to talk to her'. [R3FG5, 38 years old, Graduate, Trainer]
		'I felt happy giving this information to her, but because she was shy and hesitant, I was wondering did I give the information too early, making her uncomfortable'. [R5FG4, 30 years old, school dropout, Homemaker]
		'I must admit that I was not feeling very comfortable speaking about it, after a point. Didn't want to talk about intercourse and all that with her'. [R3FG6, 40 years old, Postgraduate, Researcher]
Resistance to communicate	Mothers believed their daughters would become unduly informed about the reproductive system. They are too young to receive knowledge, and while they are in school, information would divert their concentration from their schoolwork. Additionally, mothers are concerned about social challenges like misinterpretation of information by their daughters' peers, as they fear their daughters may share this information with their school friends.	'Right now, they are studying, let them study why give them all this extra information they will become distracted'. [R6FG1, 10th Std, homemaker]
		'I discussed with my friend and then decided that so much detail is not required for her'. [R6FG3, 29 years old, 10th Std, Homemaker]
		'I can tell her only little by little, in our culture for ladies it's a very different thing mam. If what I tell her she goes and tells others, then they will think she has grown too fast. They will think differently about her'. [R3FG4, 33 years old, 10th Std, Domestic Help]
		'I don't want to have this discussion now because I don't see any kind of physical change in her'. [R1FG6, 44 years old, Graduate, Homemaker]
		'She is a very extrovert child, if I tell her something she will go and tell it to everybody in class, and it will get misinterpreted because they don't understand anything now'. [R2FG6, 33 years old, Postgraduate, Homemaker]

womanhood's beauty. A study,[43] found that adolescent girls prioritise emotional support and reassurance from parents about menstruation, stating that periods should be seen as a natural occurrence. They urged for a shift from viewing menstruation solely as a biological or hygiene issue to viewing it as an intimate, subjective experience. The current study's post-intervention outcomes showed that respondents aimed to paint menstruation in a positive light for their pre-menarche daughters under the theme of normalisation.

Use of Mediated Platforms as a Tool for Health Education

Mothers utilised technology to assist their daughters in menstrual health education, using YouTube videos pictures, and worksheets to educate and enhance understanding of the reproductive system. Mothers viewed videos together, allowing daughters to watch first and then address questions. They also used pictures after the videos to help understand and resolve questions. The animated format reduced workload, and mothers ensured explanations and clarifications after watching the videos. Research[22] suggests that reproductive communication is a unilateral process, primarily characterised by mother-daughter transmission, shaped by mothers' objectives to affect their daughters' sexual and reproductive behaviours. Girls may initiate enquiries for information or clarification on reproductive matters. Communication may be both participatory and transactional, enabling females to acquire a thorough comprehension of reproductive ideas through dialogue. The findings of the current study suggest that there is a bilateral type of communication between mothers and daughters. Mothers learnt to use a medium to transmit information and were receptive to engaging in dialogue, responding to inquiries, and addressing doubts. The current study's results differ from previous research because the psychoeducation programme curriculum was constructed by incorporating the findings, opinions, and recommendations of other studies.

Readiness to Communicate Reproductive Health

Following the intervention, mothers felt empowered to discuss menstruation with their daughters, feeling relieved that their daughters would not experience fear with their first period and would not acquire unfavourable attitudes towards menstruation. Mothers were pleased that their daughters would come back and inform them if they observed any changes in their bodies. Mothers also experienced a sense of comfort that engaging in conversations with their daughters had strengthened their bond with one another as it offered an opportunity to talk about their bodies. This has fostered intimacy and created a secure environment for their daughters to openly discuss menstruation without any apprehension. A study[24] suggested fostering a harmonious bond between a mother and daughter is crucial for open dialogue and personal information sharing during adolescence. Frequent conversations with the mother positively impact discussions related to puberty and promote positive reproductive health communication. The current study supports previous research that open discussions about reproductive health between mothers and daughters contributed to the development of strong and meaningful ties between them.

Awareness of Reproductive Health

The current study found that mothers with lower education levels had limited knowledge about the reproductive system's biological components. The psychoeducation programme helped them understand their reproductive system and change their perception of menstruation, revealing that it is neither dirty nor impure. Uneducated and undereducated mothers often lack sufficient biological knowledge, making them the primary sources of information on adolescent menstrual health education. Studies[44] show that mothers who cannot read and write have limited understanding of reproductive health and menstrual hygiene. They often recognise physical changes like height increases, chest broadening, freckles, pimples, menses, and pubic hair. The discharge during menstruation, known as Behnna, signifies the elimination of excess blood.[45] Most mothers have limited understanding of the biological processes associated with the menstrual cycle, assuming it to be connected to the uterus or ovaries.[46] This lack of reproductive knowledge during early developmental stages affects parents' decisions to withhold reproductive health instruction from their children.[26] The current study has emphasised the importance of educating pre-menarche girls' mothers, enabling them to educate their daughters on menstruation through scientific knowledge.

Discussing the Reproduction System

Mothers educated daughters on reproduction basics, providing age-appropriate information on eggs and sperm roles, without going into explicit details. Mothers have effectively communicated about their daughters' reproductive system through simple language, advising them to inform them if they experience body pain or bleeding, without providing explicit information about the process. The present study explores the impact of factors like mother's education level and daughter's age on their communication about the reproductive system. Mothers of daughters aged 11–14 engaged in discussions, while mothers of daughters aged 8–10 did not. A study[22] found that most reproductive communication begins with girls aged 13–15 years old (40.6%), followed by 10–12 years old (23.9%) and younger than 10 years old (11.8%). Amicable communication is one-way and involves girls

under 13. Another study[47] found that mothers with formal education were more likely to discuss SRH topics with their daughters. This present study aligns with previous research, which suggests mothers tend to discuss reproductive health with girls beyond the age of 12, even if they have knowledge about menstruation and are concerned about early menarche.

Feeling Uncomfortable

Mothers felt uncomfortable and hesitated when discussing reproductive system-specifics with their daughters, despite feeling pleased to communicate. Some mothers reconsider whether the material they provide is age-appropriate due to their daughters' embarrassed response to receiving the information. A study[48] found that shame, misinformation, and negative perceptions about menstruation can hinder mothers from providing their daughters with the necessary information. Both mothers and daughters experienced discomfort when discussing menstruation but eventually became more comfortable with discussing it openly. Another study[49] found that sexual communication is a natural topic for both mothers and daughters, but some daughters found discussing it challenging due to dialectical tensions. The current study's findings correspond with those of prior investigations, as indicated by the research findings.

Resistance to Communicate

Mothers often hesitate to communicate with their daughters due to concerns about overwhelming them and distracting them from their academic pursuits. Given their young age, it is crucial for them to remain focused on their studies and avoid distractions or curiosity-driven exploration. Menarche is often overlooked in relation to fertility and childbirth due to fear of young women becoming sexually aware. This fear also contributes to mothers' reluctance to discuss menstruation with their daughters.[13] Mothers often find it difficult to discuss menstruation frequently due to their own mothers' lack of engagement, lack of knowledge, and social taboos.[14,15] Embarrassment, social taboos, and undesirable attitudes about discussing menstruation are major contributing factors.[16] While some consider the age range of 10–12 years old appropriate for discussing sexually related topics, many parents feel it is too early to have these conversations without assistance.[50] Parents avoid discussing sexuality with their children to preserve their innocence, refrain from introducing concepts prematurely, and prevent confusion at an early age. In Bangladesh,[24] mothers believe that having prior awareness can promote sexual behaviour among teenagers. In a research study,[27] mothers expressed the belief that an overload of knowledge could cause unwarranted fear in children.

Three mothers were cautious for social reasons; they believed that educating their girls about menstruation before they reach puberty could result in misinterpretation and disapproval from parents around them. The mothers had an acute understanding of their children and anticipated that they would pass on the information among their peers. Mothers were specific that they would only initiate an exchange with their daughters, aged 10 and 11 years old, if they observed physical changes associated with thelarche stage (breast budding). A study[24] in Bangladesh found that 67.2% of respondents reported that mother-daughter communication on adolescent health began after menarche, with 80% initiating discussions with mothers. Most mothers expressed concern about holding off discussing topics until children began menstruating, but many believed that educating young people as early as 9 or 10 could prevent early sexual behaviour.[51] The first-time mothers start discussing reproductive health with daughters is when they recognise physical changes, such as bleeding or enlarged breasts.[23] The onset of menstruation and pubertal body changes like breast development initiated most of these conversations.[47] The results of the current study illustrate that the reasons mothers of pre-menarche girls reported not being able to start a conversation with the girls after the intervention are consistent with those found in prior studies.

The themes and sub-themes of the pre-psychoeducation showed concerns and worries about the child's intellectual and emotional capacity to grasp and take responsibility for their menstrual health. Communication showcased the diverse obstacles and anxieties that mothers would encounter while informing and educating their daughters about menstruation.

The post-psychoeducation phase results indicate that mothers have gained the competence to communicate about menstruation with their daughters. Mothers experienced a sense of preparedness to discuss menstruation after their participation in the psychoeducation programme. The psychoeducation programme was determined to be effective.

Strengths of the Study

Recommendations from previous research studies contributed to the creation of a psychoeducation programme. The programme targeted mothers as primary informants, equipping them with the necessary knowledge and skills to facilitate menstrual education. It addressed issues such as mothers' lack of knowledge, their uncertainty in responding to questions, and their hesitation regarding the appropriate amount of information to provide. Additionally, the programme assisted mothers in leveraging technology to facilitate their communication around menstrual health.

Limitations

To enhance the study's impact, it would have been beneficial to gather the daughters' understanding of menstruation. However, due to time and resource constraints, it was not

feasible to connect with the daughters of 53 respondents individually and collect their knowledge on the topic within a limited timeframe. Second, the participants were given a period of 2 weeks to engage in discussions with their daughters and share their experiences. Subsequent follow-ups could not be carried out due to time constraints. A longitudinal research study could facilitate understanding of the impact on the daughters' experience of menarche and the long-term efficiency of the psychoeducation programme.

Conclusions

The results of the post-psychoeducation phase suggest that mothers have acquired the skills needed to communicate about menstruation with their daughters. The identified themes show that mothers, on their part, tried to normalise menstruation by eradicating the stigma around it. They attempted to introduce the concept of menstruation to their daughters by using simple language, illustrations, and analogies. Mothers used digital resources, such as YouTube videos, illustrations, and worksheets, to enhance their daughters' knowledge on menstrual health. A bidirectional form of communication was present; mothers observed the reactions of their daughters and acted promptly by comforting and reassuring them. Following their involvement in the psychoeducation programme, mothers reported feeling better prepared to engage in conversations regarding menstruation. The psychoeducation programme was found to be effective.

Implications of the Study

The current study highlights the effectiveness of the psychoeducation programme on mothers with pre-menarche daughters. The study results suggest the following recommendations for policy makers, schools and organisations working towards menstrual health and education:

1. Research studies have shown the role of mothers as significant sources of information during menarche. The current study indicates that mothers equipped with knowledge and communication skills are better at determining how much information to share with their daughters before menarche. The psychoeducation programme not only provided these mothers with essential information but also created a space for them to express their fears, worries, and concerns prior to the knowledge session. After receiving this training, mothers were able to make informed decisions about the information they communicated to their daughters. The programme fostered open channels of communication, suggesting that similar psychoeducation initiatives could further empower mothers with the necessary skills and knowledge to support their daughters effectively.
2. Schools and organisations are encouraged to implement menstrual health education courses that align with the current psychoeducation programmes that are designed for the mothers of pre-menarche girls. It is crucial that these courses consider the socio-cultural contexts in which they are introduced.
3. Support groups and workshops for mothers of pre- and post-menarche daughters aimed to address the emotional aspects of adolescent growth and development.

Authors' Declaration

We declare that this research work is our own, original, and neither published nor submitted for publication elsewhere.

Data Availability Statement

The data that support the findings of this study are openly available in Mendeley Data, V1, doi: 10.17632/8kj2s6mmmy.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Ethical Approval and Informed Consent Statements

The study was approved by the University Research Ethics Committee of Martin Luther Christian University on 11 August 2021. All participants provided written informed consent to participate prior to enrolment in the study. Reporting of the study to the community was done as per ethical compliance on 1 October 2024.

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References

1. Flaake K. Girls, adolescence and the impact of bodily changes: family dynamics and social definitions of the female body. *Eur J Womens Stud*. 2005. doi:10.1177/1350506805051241.
2. Shahhosseini Z, Simbar M, Ramezankhani A, Alavi Majd H, Moslemizadeh N. The challenges of female adolescents' health needs. *Community Ment Health J*. 2013;49(6):774-780. doi:10.1007/s10597-013-9606-6.
3. Bobhate P, Shrivastava S. A cross sectional study of knowledge and practices about reproductive health among female adolescents in an urban slum of Mumbai. *J Family Reprod Health*. 2011;5(4):117-124.
4. Deo DS, Ghattargi CH. Perceptions and practices regarding menstruation: a comparative study in urban and rural adolescent girls. *Indian J Community Med*. 2005;30(1):33-35.

5. Kamaljit K, Balwinder A, Gurmeet KS, Neki NS. Social beliefs and practices associated with menstrual hygiene among adolescent girls of Amritsar, Punjab, India. 2012.
6. Udgiri R, Angadi MM, Patil S, Sorganvi V. Knowledge and practices regarding menstruation among adolescent girls in an urban slum, Bijapur. *J Indian Med Assoc*. 2010;108(8):514-516.
7. Dambhare DG, Wagh SV, Dudhe JY. Age at menarche and menstrual cycle pattern among school adolescent girls in central India. *Glob J Health Sci*. 2011;4(1):10-18.
8. Juyal R, Kandpal SD, Semwal J. Social aspects of menstruation related practices in adolescent girls of district Dehradun. *Indian J Community Health*. 2013.
9. Kamath R, Ghosh D, Lena A, Chandrasekaran V. A study on knowledge and practices regarding menstrual hygiene among rural and urban adolescent girls in Udupi Taluk, Manipal, India. *Glob J Med Public Health*. 2013;2(4).
10. Kumar CM, Babu CS. Reproductive health problems of adolescent girls between 15 and 19 in Andhra Pradesh. *Pak Pediatr J*. 2012;36(4):225-234.
11. Sharma S, Mehra D, Kohli C, Singh MM. Menstrual hygiene practices among adolescent girls in a resettlement colony of Delhi: a cross-sectional study. *Int J Reprod Contracept Obstet Gynecol*. 2017;6(5):1945. doi:10.18203/2320-1770.ijrcog20171954.
12. Manoshi D, Shastri S. An experience of menarche: a qualitative study. *J Psychosoc Res*. 2019;13(2):329-340. doi:10.32381/JPR.2018.13.02.7.
13. Garg S, Sharma N, Sahay R. Socio-cultural aspects of menstruation in an urban slum in Delhi, India. *Reprod Health Matters*. 2001;9(17):16-25. doi:10.1016/S0968-8080(01)90004-7.
14. Cooper SC, Koch PB. 'Nobody told me nothin': communication about menstruation among low-income African American women. *Women Health*. 2007;46(1):57-78. doi:10.1300/J013v46n01_05.
15. Gillooly JB. Making menarche positive and powerful for both mother and daughter. *Women Ther*. 2004;27(3-4):23-35. doi:10.1300/J015v27n03_03.
16. Marván ML, Chrisler JC. Menarcheal timing, memories of menarche, and later attitudes toward menstruation. *Cogent Psychol*. 2018;5(1):1-12. doi:10.1080/23311908.2018.1525840.
17. Sooki Z, Shariati M, Chaman R, Khosravi A, Effatpanah M, Keramat A. The role of mother in informing girls about puberty: a meta-analysis study. *Nurs Midwifery Stud*. 2016. doi:10.17795/nmsjournal30360.
18. Babbar K, M S. *Promoting Menstrual Health: Towards Sexual and Reproductive Health for All*. Issue Brief No. 613. New Delhi: Observer Research Foundation; 2023.
19. Sommer M, Torondel B, Hennegan J, et al. How addressing menstrual health and hygiene may enable progress across the Sustainable Development Goals. *Glob Health Action*. 2021;14(1):1920315. doi:10.1080/16549716.2021.1920315.
20. Sommer M, Caruso BA, Torondel B, et al. Menstrual hygiene management in schools: midway progress update on the 'MHM in Ten' 2014-2024 global agenda. *Health Res Policy Syst*. 2021;19(1):1. doi:10.1186/s12961-020-00669-8.
21. Sommer M, Phillips-Howard PA, Mahon T, Zients S, Jones M, Caruso BA. Beyond menstrual hygiene: addressing vaginal bleeding throughout the life course in low and middle-income countries. *BMJ Glob Health*. 2017;2(2):e000405. doi:10.1136/bmjgh-2017-000405.
22. Obono K. Patterns of mother-daughter communication for reproductive health knowledge transfer in southern Nigeria. *Glob Media J*. 2012;1(5):95-110.
23. Chainok L, Kongvattananon P, Somprasert C. Mother-adolescent daughter communication about sex: integrative review. *Bangk Med J*. 2019;14(2):121-127. doi:10.31524/bkkmedj.2018.09.020.
24. Zakaria M, Xu J, Karim F, Cheng F. Reproductive health communication between mother and adolescent daughter in Bangladesh: a cross-sectional study. *Reprod Health*. 2019;16. doi:10.1186/s12978-019-0778-6.
25. Mirzaee F, Pouredalati M, Ahmadi A, Ghazaznfarpour M. Barriers to puberty talk between mothers and daughters: a qualitative study. *Rev Bras Ginecol Obstet*. 2021;43(5):362-367. doi:10.1055/s-0041-1729148.
26. Indraswari R, Shaluhiyah Z, Widjanarko B, Suryoputro A. Factors of mothers' hesitation in discussing reproductive health. *Int J Public Health Sci*. 2021;10(4):801-806. doi:10.11591/ijphs.v10i4.21147.
27. Mataraarachchi D, Buddhika Mahesh PK, Pathirana TEA, et al. Mother's perceptions and concerns over sharing sexual and reproductive health information with their adolescent daughters: a qualitative study among mothers of adolescent girls aged 14-19 years in the developing world, Sri Lanka. *BMC Womens Health*. 2023;23(1):223. doi:10.1186/s12905-023-02369-1.
28. Garg R, Goyal S, Gupta S. India moves towards menstrual hygiene: subsidized sanitary napkins for rural adolescent girls—issues and challenges. *Matern Child Health J*. 2012. doi:10.1007/s10995-011-0798-5.
29. Meher T, Sahoo H. Secular trend in age at menarche among Indian women. *Sci Rep*. 2024;14(1):5398. doi:10.1038/s41598-024-55657-7.
30. Deshpande P. Increasing percentage of 'early menarche' in Indian adolescent girls and its prevention. *J Prev Med Holistic Health*. 2020;6(1):49-51. doi:10.18231/j.jpmhh.2020.009.
31. Krueger RA. *Focus Groups: A Practical Guide for Applied Research*. 5th ed. Thousand Oaks, CA: SAGE Publications; 2015.
32. Bartholomew LK, Parcel GS, Kok G, Gottlieb NH. *Planning Health Promotion Programs: An Intervention Mapping Approach*. 4th ed. Hoboken, NJ: Wiley; 2016.
33. Hennink MM. *Focus Group Discussions*. New York, NY: Oxford University Press; 2014. Leavy P, ed. Understanding Qualitative Research.

34. McGuire C, Hogg C, Barker R. *Health Promotion and the Family: Messages from Four Research Studies*. London: Health Education Authority; 1996.
35. Walker A. *The Menstrual Cycle*. London: Routledge; 2008. doi:10.4324/9780203135051.
36. Villarruel AM, Loveland-Cherry CJ, Ronis DL. Testing the efficacy of a computer-based parent-adolescent sexual communication intervention for Latino parents. *Fam Relat*. 2010;59(5):533-543. doi:10.1111/j.1741-3729.2010.00621.x.
37. Newby K, Bayley J, Wallace LM. 'What should we tell the children about relationships and sex?': development of a program for parents using intervention mapping. *Health Promot Pract*. 2011;12(2):209-228. doi:10.1177/1524839909341028.
38. Manoshi D, Ashok HS. Need based assessment study of mothers with pre-menarche daughters. *J Psychosoc Res*. 2025;20(2):201-212. doi:10.32381/JPR.2025.20.02.4.
39. Zakaria N, Zakaria N. *Qualitative Content Analysis: A Paradigm Shift from Manual Coding to Computer-Assisted Coding Using ATLAS.ti*. London: SAGE Publications; 2015.
40. Woolf NH, Silver C. *Qualitative Analysis Using ATLAS.ti: The Five-Level QDA Method*. London: Routledge; 2018.
41. Naeem M, Ozuem W, Howell K, Ranfagni S. A step-by-step process of thematic analysis to develop a conceptual model in qualitative research. *Int J Qual Methods*. 2023;22: 16094069231205789. doi:10.1177/16094069231205789.
42. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006;3(2):77-101. doi:10.1191/1478088706qp063oa.
43. Koff E, Rierdan J. Early adolescent girls' understanding of menstruation. *Women Health*. 1995;22(4):1-19. doi:10.1300/J013v22n04_01.
44. Mahajan C, Sharma A, Yadav A. Let's talk about menstruation: a study on women's perception through their knowledge, attitudes and experiences. Accessed [date]. https://www.researchgate.net/publication/360121752
45. Mansoor T, Gilani R. Liminality, maternal menstrual knowledge and socialization of adolescent daughters: a qualitative study in Pakistan. *Womens Reprod Health*. 2024;11(3):523-536. doi:10.1080/23293691.2023.2285280.
46. Rizvi N, Ali TS. Misconceptions and mismanagement of menstruation among adolescents girls who do not attend school in Pakistan. *J Asian Midwives*. 2016;3(1):46-62.
47. Iliyasu Z, Aliyu MH, Abubakar IS, Galadanci HS. Sexual and reproductive health communication between mothers and their adolescent daughters in northern Nigeria. *Health Care Women Int*. 2012;33(2):138-152. doi:10.1080/07399332.2011.562996.
48. Adinma ED, Adinma JIB. Perceptions and practices on menstruation amongst Nigerian secondary school girls. *Afr J Reprod Health*. 2008;12(1):74-83.
49. Coffelt TA. Is sexual communication challenging between mothers and daughters? *J Fam Commun*. 2010;10(2):116-130. doi:10.1080/15267431003595496.
50. Wilson EK, Dalberth BT, Koo HP, Gard JC. Parents' perspectives on talking to preteenage children about sex. *Perspect Sex Reprod Health*. 2010;42(1):56-63. doi:10.1363/4205610.
51. Crichton J, Ibisomi L, Gyimah SO. Mother-daughter communication about sexual maturation, abstinence and unintended pregnancy: experiences from an informal settlement in Nairobi, Kenya. *J Adolesc*. 2012;35(1):21-30. doi:10.1016/j.adolescence.2011.06.008.