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RESEARCH

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Exploring sources of social support during pregnancy- a qualitative study in rural southern India

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Abstract

Background Social support is known to influence pregnancy outcomes. We explored the sources of social support available to pregnant women in a rural setting in south India.

Methods We conducted 13 focus group discussions (FGDs) among women of child-bearing age, husbands, mothers/ mothers-in-law, community health workers, and community leaders. FGDs were transcribed and analysed using thematic analysis.

Results Support received during pregnancy were mainly in three domains; tangible, informational and emotional support. Tangible support refers to providing practical support such as cooking nutritious food for the pregnant women, helping them with household chores, and accompanying pregnant women for hospital visits. Informational support refers to measures aimed at improving awareness during pregnancy and promoting informed decision making such as advice on dietary practices and remedies for common ailments. Emotional support refers to the support provided by family members and CHWs in fulfilling women's desires during pregnancy and allowing them a safe space to share their problems. Sources of support identified include husbands, elders in the family, friends, the local community, and health service providers. In general, perceptions were similar across participant groups, age and gender. While tribal participants sought elders' advice and relied on traditional remedies compared to non-tribal participants, they were more likely to access nutritional aids offered by the government. CHWs provide additional support to tribal communities in identifying pregnant women, closely monitoring them and extending informal support during pregnancy and delivery by taking them to the hospital. Members of the joint family including mothers-in-law and sisters-in-law actively helped in chores, nutrition and newborn care compared to the nuclear family. In general, women felt that they received valuable support from family and community. Participants felt that support from husbands, families and neighbours had an influence on women's health and behaviour during pregnancy.

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Conclusions The findings were used to develop intervention modules to promote maternal health and the health of their offspring.

Keywords Family support, Pregnancy care, Pregnancy support, Social support, Sources of support

Background

Pregnancy is a physiological state which is marked by increased demand for nutrition and hormonal fluctuations which may impact emotional status [1, 2]. The mother's nutritional [3] and emotional wellbeing [4] plays a vital role in optimising the growth and development of the foetus. Therefore, women not only require routine medical assistance during pregnancy, but also social support to ensure adequate nutrition and overall health.

Social support in the context of pregnancy may be defined as perception or actuality of formal and informal assistance offered to a woman throughout her pregnancy and postpartum, from the family and other key actors of her social circle, which positively influences her pregnancy experience and ultimately the pregnancy outcome [5–7]. Support during pregnancy has been classified into three functional types: (1) Tangible support [5, 8], (2) Informational support [9, 10], and (3) Emotional support [5, 11].

Previous studies in both high and low income settings have shown that improved family support during pregnancy not only results in better adherence to micronutrient supplementation [12, 13] but is also associated with better infant growth indicators [14]. Support during pregnancy improves the mother's emotional wellbeing [15] reducing the incidence of both peripartum anxiety and depression [16]. Perceived social support makes a positive childbirth experience more likely [17], improves maternal quality of life [18] and acts as a buffer to preterm delivery associated with stress [19]. Family support also encourages early initiation of breastfeeding [20]. With social support, pregnant women are more inclined to seek health information [21] and be motivated to take care of themselves [22]. In contrast, the absence of social support during pregnancy has been associated with a higher incidence of low birth weight [23] and perinatal distress [24]. Thus, social support plays a significant role in improving pregnancy outcomes.

The Developmental Origins of Health and Disease (DOHaD) hypothesis suggests that adversities during early development influences health in later life [25]. It is now well established that impaired maternal nutrition, low birth weight and poor infant growth are risk factors for the development of chronic non-communicable diseases (NCDs) in adult life [26].

In this study, we explored in-depth the sources of social support influencing health during pregnancy using qualitative methods.

Methods

Overview of the HeLTI trial

The Healthy Life Trajectories Initiative (HeLTI) [27] is based on DOHaD principles, and will examine whether interventions starting from before conception and continuing through pregnancy and postnatally improve maternal and child health. It comprises four separate, but harmonised intervention studies in India, South Africa, China and Canada. HeLTI intervention packages are multi-faceted and encompass women's nutrition, physical and mental health, and child development [27].

Study setting

This qualitative study is a part of larger HeLTI India study, which is set in 105 villages near Mysuru in southern India [27]. The community is characterised by subsistence farming, low levels of literacy and poor nutritional status with high rates of underweight, anaemia, stunting and overweight [27, 28]. In India, HeLTI interventions are delivered by local community health workers. Although interventions in all four country sites address common domains, they were adapted to the local sociocultural context in each country. This adaptation required extensive community engagement to develop the final intervention package and finalise delivery methods.

During our initial engagement with the local community, social support was identified as an important factor influencing care during pregnancy.

Participants

Participants were included based on the role they play in a woman's pregnancy journey. As a part recruitment drive for the main HeLTI trial, a door-to-door household survey was conducted to identify eligible couples who were married with or without children. We contacted such households and invited them to participate. We also recruited family and community elders, mothers and mothers-in-law, and fathers and fathers-in-law, from households. Participants were recruited from 3 villages through convenience sampling ensuring adequate representation from different socioeconomic groups (both tribal and non-tribal communities). Villages selected reflected the local population demographics. We restricted participation to one participant (a woman, husband or elder) from one household to maintain diversity in the sample. The Community Health Workers (CHWs) i.e. Accredited Social Health Activist (ASHA) serving both tribal and non-tribal communities, stakeholders from the local village governing body and elders from the

community were also recruited. Participants refused only if they were busy and unable to participate during our scheduled time. Written informed consent was obtained from all study participants.

Data collection and analysis

We conducted 13 focus group discussions (FGDs) in groups of 4 to 8 participants; a total of 83 participants who were representative of the population were recruited through purposive sampling method. Five FGDs were conducted among women of reproductive age including 2 FGDs of tribal women who live off the land ($n=7$; $n=8$) and 3FGDs from the non-tribal population ($n=7$; $n=7$; $n=4$). Two FGDs each were conducted among married men ($n=7$; $n=6$), community leaders **(**$n=6$; $n=6$**)**, mothers and mothers-in-law ($n=5$; $n=4$) and community health workers (CHWs) including Accredited Social Health Activists (ASHAs) and Anganwadi workers ($n=8$; $n=8$) (Anganwadi - a government maternal and child care centre). We conducted a minimum of 2 FGDs per group and discussions were conducted until no new information emerged ensuring data saturation.

All FGDs were conducted in community centres which were accessible to all participants. FGDs were conducted in an enclosed environment ensuring privacy to the participants. Only the participants and facilitators were present. Interviews were conducted by early-career and senior researchers (minimum qualification Masters degree), from diverse backgrounds in nutrition, psychology, and clinical sciences, who were trained in qualitative research. Interviewers/ facilitators were gender matched with the participants to promote rapport. A semi-structured FGD guide [see Additional file 1] containing open-ended questions was used. The FGD guide comprised questions about awareness of their health, the care offered during pregnancy, and facilitators and challenges for a healthy pregnancy. One facilitator led the discussion using the questions from the FGD guide, whilst the other kept time and made notes. Discussions were conducted in the local language, Kannada; each FGD lasted for about 60 to 90 min. Participants were encouraged to answer questions through open discussion in order to bring out as much information as possible. Relevant probes were included to promote smooth and logical flow of discussion. All FGDs were audio recorded and later transcribed verbatim. Transcripts were later translated to English and were reviewed with the original audio for accuracy. Each participant was assigned a unique code for anonymity.

Data coding and analysis was performed only after all the data was collected. Coding was independently carried out by two trained researchers; any potential queries or discrepancies were discussed and resolved with a third senior researcher. Data were analysed taking a reflexive thematic approach as described by Braun and Clarke [29]. We followed an inductive approach to identify themes emerging from the data and did not follow any code template a priori. The transcripts were uploaded to NVivo13 in which they were coded inductively to develop an initial coding framework. As new codes emerged, they were incorporated into the coding framework which was modified in response. Finally, related codes were combined to create broad themes and sub-themes which related to the different types of social support offered to pregnant women in the study area. Direct quotes from the transcripts are used to illustrate these themes. Reporting of the study findings follow COREQ guidelines (COnsolidated criteria for REporting Qualitative research) [30].

Table 1 Participant characteristics

	Participant Category	*N*	Gender	Age range
1	Husbands FGD 1	7	Male	20–35
2	Husbands FGD 2	6	Male	22–30
3	Community leaders FGD 1	5	Male	45–70
		1	Female	
4	Community leaders FGD 2	8	Male	28–42
5	Non-tribal women FGD 1	7	Female	20–28
6	Non-tribal women FGD 2	7	Female	20–36
7	Non-tribal women FGD 3	4	Female	24–30
8	Tribal women FGD 1	7	Female	18–26
9	Tribal women FGD 2	8	Female	20–28
10	CHWs FGD 1	8	Female	28–40
11	CHWs FGD 2	8	Female	30–46
12	Mothers and mothers-in-law FGD 1	5	Female	40–60
13	Mothers and mothers-in-law FGD 2	4	Female	38–64

Results

Participants characteristics

Table 1 gives the details of the FGD participants. There was a wide age range from multiple representative groups.

Thematic analysis findings

Themes of support offered during pregnancy that emerged from the FGDs are Nutrition, Chores, Medical needs, Government services, Customs, Postpartum support, General health, Desires, and Bonding. These have been categorized into three major themes of support as: (1) Tangible support [5, 8], (2) Informational support [9, 10], and (3) Emotional support [5, 11], and presented below.

Theme 1: tangible support

This includes actively providing material aid or performing tasks aimed at addressing the practical necessities during women's pregnancy. In our context, preparing nutritious food during pregnancy, taking on household chores, accompanying them to the hospital and offering postpartum care were some of the key aspects of support.

Sub-theme 1: nutrition
Participants felt that families recognised the increased nutritional demands of the pregnant women and offered food that was perceived to be healthier. Although their primary focus was on infant development, they recognized the importance of maternal health in achieving that.

> *"...only fruits, vegetables and greens like drumstick leaves are given more so that the baby will get proper vision.... everything they bring and give like juice, at home they prepare and give apple juice, pulse sprouts are given more...". Non-tribal women FGD 3*
> *"...We eat a lot of soppu [GLV]...we pick and bring them...from the fields...and eggs daily (provided at Anganwadi)... we eat so that the child will have good growth" Tribal women FGD 2*

Husbands encouraged their wives to eat regularly and on time. Usually, women ate last after serving food to the rest of the family. However, during pregnancy, husbands made their wives eat first and at regular times.

> *"....They (family) tell us first you have food....They tell us to have food from time to time...." Non-tribal women FGD 1*

Neighbours offered food and looked after the pregnant women when there were no family members at home.

> *"...If there is no one at home and inform neighbours to take care of pregnant women they look after them because she is pregnant right, so...." Non-tribal women FGD 1*

CHWs mentioned that pregnant tribal women were more likely to access the foods supplies provided as part of government schemes compared to non-tribal women.

> *"...now all tribes are getting good ration from Anganwadi so they eat...tribes will eat the foods madam no problem others will not eat" CHWs FGD 1*

Sub-theme 2: chores
Participants mentioned family members took on routine physical work so that pregnant women could get rest. Among tribal communities, this includes sourcing firewood and drinking water.

> *"...Since we are pregnant, they help in collecting the firewood, standing in a queue line for collecting water from the bore well...." Tribal women FGD 1*
> *"...They tell us not do work and not to lift the weight and ask us to sit down, walk after the meal since it is healthy, like this they will help...". Tribal women FGD 1*
> *"...My mother was doing everything...". Non-tribal Women FGD 1*
> *"...we will not give more work for her since she is pregnant ...". Mothers and mothers in law FGD1*

Family type influences the support offered to a pregnant woman.

> *"...Accordingly, it depends upon the size of the family. For example, either it be a pregnant woman or post-pregnant women, if the size of the family is big, like more family members then at such condition that women will be totally free...". Husbands-2*
> *"...And we will only do all their works...." Husbands-1*

Sub-theme 3: medical support
Participants felt husbands were mainly responsible for taking their wives to regular antenatal appointments and also ensured their wives took supplements/ medications as prescribed.

> *"...they (husbands) take us to hospital, give tablets, and tonic from time to time. They take care of us like that...." Non-tribal women FGD 2*

They also mentioned various ways in which elders in the family provided home remedies for common ailments during pregnancy and the postpartum period. Tribal women rely more on advice from elders, and traditional remedies compared to non-tribal participants who seek treatment at hospitals.

> *"...Since the mother's body is weak at that period and they may get back pain in later day so to avoid that, mixture of turmeric powder and castor oil is heated and applied over the skin. Later hot water shower is given...". Tribal women FGD 1*
> *"...during pregnancy they give a bark called 'kembara checke' during pregnancy.to avoid rashes and skin allergies on the baby's skin when they are born...". Tribal women FGD 1*
> *"...Nothing much we do in home sir, we will visit the hospital for the treatment... we will ask Doctor sir, what to & what not to provide. We provide what all doctor suggests". Husbands FGD 1*

CHWs visited women regularly during pregnancy and postpartum period. They provided additional support to tribal women in identifying pregnant women, closely monitoring them with antenatal visits, and helped by scheduling hospital appointments. They also arranged

for ambulances, supervised institutional deliveries and attempted to ensure there were no home deliveries.

> *"...When we come to know they (tribal women) are pregnant we have to take them to hospital by bus. Where I work, people are like this only. If we tell something (about ANC visit etc.) they (Tribal families) ask us only to take them to hospital in bus...." CHWs FGD 2*

Neighbours and friends helped in transportation especially during delivery and emergencies.

> *"...when women become pregnant or during the time of delivery, if there are no vehicles in our house, if we inform neighbours that a woman has started getting delivery pain, they bring a vehicle and take them to hospital...." Non-tribal women FGD 1*

Sub-theme 4: services

CHWs were responsible for registering pregnancy and distributing monetary aids.

> *"...they [CHWs] distribute mother's card [Government health card] and money [Government aids] for [institutional] delivery and lactating mothers...". Tribal women FGD 1*

Sub-theme 5: local customs

Local customs such as holding traditional ceremonies during pregnancy were perceived to be part of the support offered by the family.

> *"...for 7th month they do seemantha (special ceremony) when the pregnant (women) go from husband's house to their mother's place...." Non-tribal women FGD 2*

Sub-theme 6: postpartum support

Participants said women usually travelled to their maternal homes during the seventh month of pregnancy, delivered the baby there and returned to their marital homes ninth months after delivery. Mothers are mainly involved in providing postnatal support and care, especially during the first pregnancy. For example, mothers give oil massage and bathe their daughters, and the newborn child.

> *"...my mother used to give me bath...." Non-tribal women FGD 3*

Theme 2: informational support

This includes providing relevant information aimed at improving awareness and better decision making. In our context, advice on nutrition, remedial measures for common ailments during pregnancy, and information on available services were some of the key aspects of support.

Sub-theme 1: nutrition

Older women in the family, especially mothers-in-law and grandmothers, provided advice on dietary practices during pregnancy.

> *"...And what all food to be provided, and in what quantity, that all will be decided by the elderly people of the home...". Mothers and mothers-in-law FGD1*

CHWs offer nutritional advice during their routine house visits.

> *"...Every month third Saturday we do mother's meeting. In that meeting we give them information about what kind of nutrient foods to eat, and how to take care of children. We give them information to eat green leafy vegetables, vegetables, sprouts, milk, egg, meat and fish. It is good and contains elements of proteins, calcium, iron in it...." CHWs FGD 2*

Sub-theme 2: health

Older women who had already experienced pregnancy offered advice to pregnant women; this included family members, friends and neighbours. Such advice covered managing common ailments, cleanliness and hygiene, maintaining optimal physical activity, and post-partum care. Older community members also counselled women's families to take care of them during pregnancy and about the recommended gap between pregnancies. Professional advice was provided to women by CHWs. Advice from elders was considered valuable.

> *"...after 6 months (elders) will tell them now bend and do-little bit of work like sweeping, cooking otherwise delivery will be problem. Women if they exercise delivery will be easy. It's our mother's proverb...". Mothers and mothers-in-law FGD 2*
> *They (CHWs) tell us to keep our house surroundings clean; advise us like if there are mosquitoes in your house it is harmful for your children and pregnant mothers...." Non-tribal women FGD*
> *"...Also, they (older women) will tell us to keep the cloth tied, tying a cloth around the middle. After the baby is born the stomach will be protruding so...." Non-tribal women FGD 1*

Sub-theme 3: services

CHWs helped by providing information regarding availability of doctors and offered information on services

available at Anganwadi and PHCs during their regular visits. CHWs reminded the women about immunization schedules.

> *"...They visit us once a week. They give us information about injections (immunization) which will be every Thursday for children. They give information about health, food, checkups. They tell us to go for regular checkups...." Non-tribal women FGD 2*

Theme 3: emotional support

In general, participants acknowledged the importance of emotional support during pregnancy. Women relied on family members, especially husbands, for emotional support. Husbands were considerate of their wives' feelings during pregnancy and kept them company. Women felt free to share their wishes with their husbands and to solve problems together.

Sub-theme 1: desires

Participants mentioned that efforts were made to ensure women were kept happy during pregnancy by attending to their desires.

> *"...we won't force them to do, they might feel sad... we should support them psychologically by staying with them...". Husbands FGD 1*
> *"...women who are pregnant should be happy...." Mothers and mothers-in-law FGD1*
> *"...when they become pregnant, whatever it might be their desire it will be fulfilled. In home whatever they ask will not be refused...". Tribal women FGD 1*

Sub-theme 2: bonding

CHWs felt that women considered them as dependable friends whom they relied on to discuss their problems.

> *"...they will be newlywed and will be pregnant, for us they will be like child because they will not be knowing anything. They will be not able to share feelings with in-laws or others. When we go and ask, they will tell us everything, will get information from us and they will ask us if there is anything else, please give the information about this...." CHWs FGD 2*

Perception of support offered during pregnancy was generally positive. Women appreciated the support they received from their family members including husbands and mothers-in-law.

> *"...So only when they are pregnant, whatever their desire is [is] fulfilled, and [family] looks after them very well...". Tribal women FGD 1*

> *"...In our house my husband and mother-in-law looks after everything..." Non-tribal women FGD 1*

Figure 1 summarises the main themes, sources of support and interplay between roles undertaken by various members.

Figure 2 depicts this study as a part of formative research for designing HeLTI intervention.

Discussion

Perceptions of what constitutes social support are heavily influenced by local socio-cultural nuances. In our context, those seen to offer support include husbands, elders in the family, friends, the local community, and health service providers. We classified support received during pregnancy into three main domains; tangible, informational and emotional support. Tangible support refers to providing practical support such as cooking nutritious food for the pregnant women, helping them with household chores, and accompanying pregnant women for hospital visits. Informational support refers to measures aimed at improving awareness during pregnancy and promoting informed decision making such as advice on dietary practices and remedies for common ailments. Emotional support refers to the support provided by family members and CHWs in fulfilling women's desires during pregnancy and allowing them a safe space to share their problems. In general, perceptions were similar across participant groups, age and gender. While tribal participants sought elders' advice and relied on traditional remedies compared to non-tribal participants, they were more likely to access nutritional aids offered by the government. CHWs provide additional support to tribal communities in identifying pregnant women, closely monitoring them and extending informal support during pregnancy and delivery by taking them to the hospital. Members of the joint family including mothers-in-law and sisters-in-law actively helped in chores, nutrition and newborn care compared to the nuclear family.

The main strengths were that we conducted FGDs with different age groups and both men and women from the community. This helped us explore a wide range of perspectives and roles played by each group in supporting pregnant women. We ensured we included representatives from tribal groups who make up about 10% of the population in this area. We co-created FGD guides with the local community and researchers trained in qualitative methods conducted the FGDs.

Participants were chosen randomly from the three villages, based on their availability and willingness to participate on the day FGDs were conducted. We also included members from both tribal and non-tribal communities to ensure representation of different socioeconomic groups. However, the health facilitators may have approached

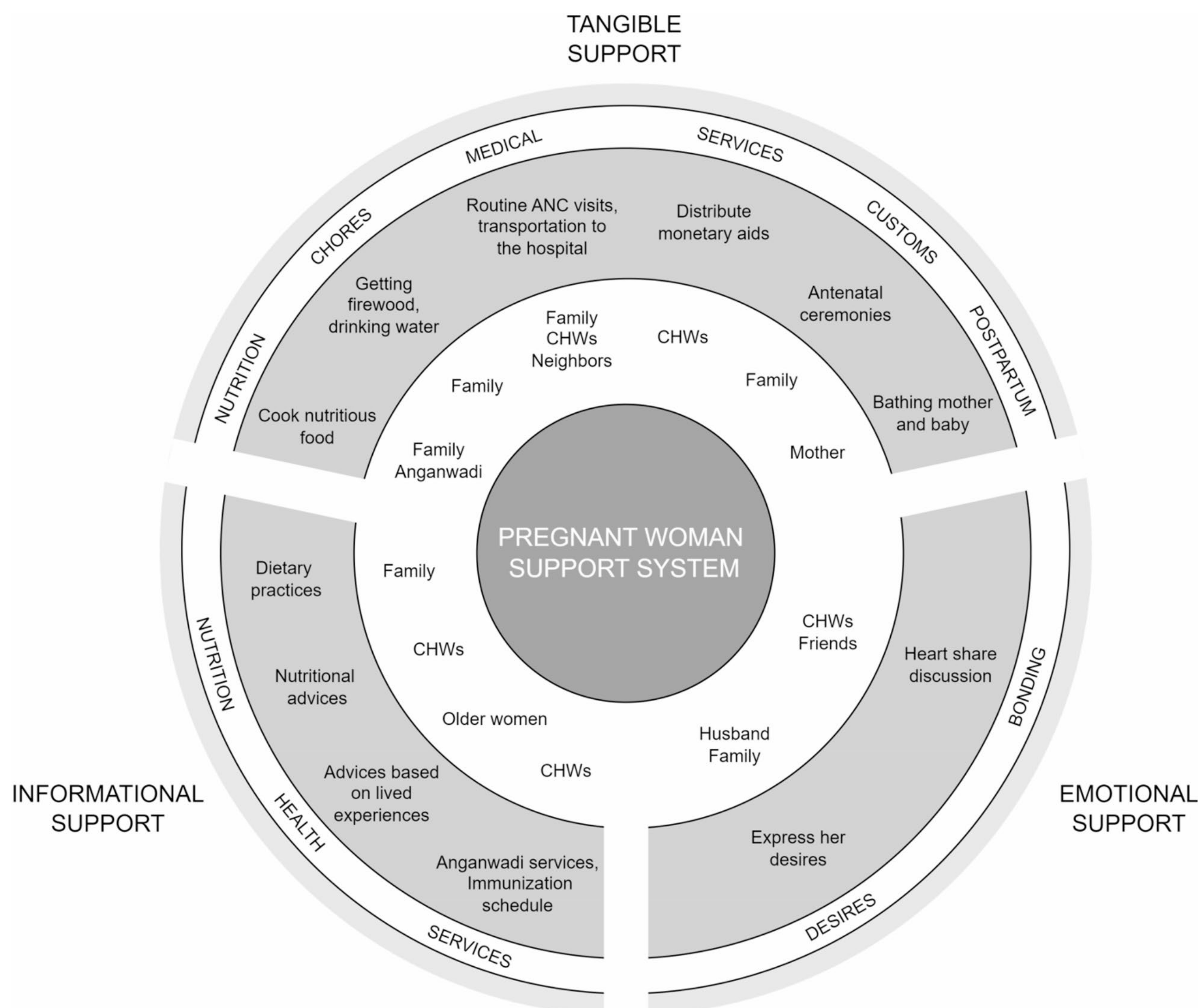

Fig. 1 Support system of a pregnant woman showing the 3 main themes of support (Tangible, Informational and Emotional), their respective sub-themes and sources of support. When a woman becomes pregnant, her family members (husband, older women with lived experience of pregnancy, mothers and mothers-in-law) support her by cooking nutritious food, taking on chores, advising on health and diet, and organizing ceremonies. Husband and CHWs provide support with hospital visits, adherence to medication and are relied on for emotional support. CHWs also are responsible for giving information around health, nutrition and government services, and distribute nutritional and monetary aids

people who were more likely to participate. Our study was conducted in a rural area in southern India this may therefore limit generalisability. There is a possibility that the position of the facilitators may influence some aspects of the responses provided by the participants owing to social desirability bias. However, the facilitators were all trained in qualitative research methods and followed a FGD guide with all the initial questions being asked in a standardized manner and in the same order to all groups. Moreover, two trained researchers carried out the coding process independently. Any potential queries or discrepancies were discussed and resolved with a third senior researcher. This study was designed to primarily explore factors influencing health and healthy behaviour among rural women, in the context of HeLTI India. While the findings from this formative study have served this objective and contributed to intervention development for HeLTI India, a multi-site study and a comparative analysis would have improved applicability further.

Participants felt that older women in the family such as mothers and mothers-in-law take responsibility of diets during pregnancy, similar to findings from other studies [31–33]. In our study, husbands were perceived to have a positive influence on women's adherence to supplementation and access to antenatal care, as also found in other studies from India and Africa [31, 34]. Family, especially husbands, and friends were found to be the primary sources of emotional support as also reported in a systematic review [35]. Husband were aware of the importance of a mental health during pregnancy, and tried to

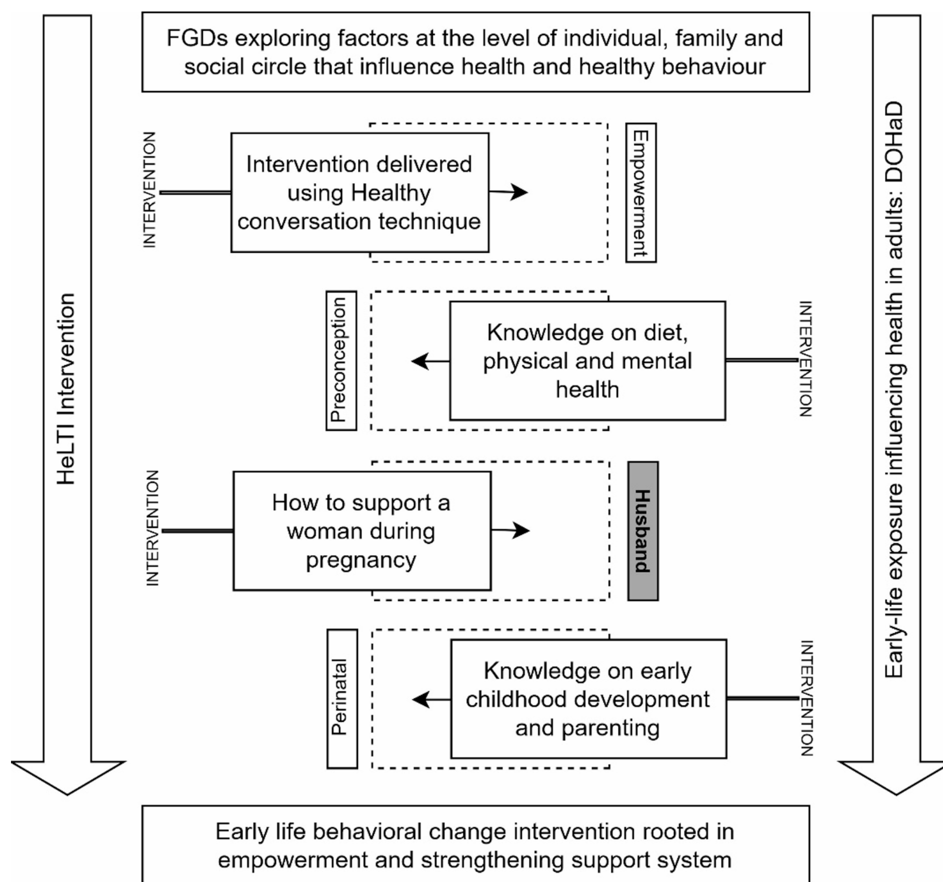

Fig. 2 Understanding the significance of support from family, two intervention modules were developed for husbands focusing on their own health as well as how they could support their wives during pregnancy

fulfil their wives' wishes. It has been shown that a supportive partner is associated with better pregnancy outcome [35–37].

In our study, women considered CHWs as friends to share their problems with and seek advice. Studies have reported that contact with CHWs improve the utilization of antenatal care services, promote of institutional deliveries and reduce anxiety [31, 38–41].

In this community, it is a common custom for pregnant women to move to their parents' house for delivery; the support they receive from their maternal homes is perceived to be crucial. This practice of temporary migration and the influence of maternal family during pregnancy and postpartum period has been reported previously [42, 43].

Although participants felt women were supported during pregnancy, they also identified challenges to deliver support. In addition to the available social support these FGDs also highlighted (1) challenges faced by the families to offer support and (2) the larger and more influential structural factors mediating pregnancy outcomes. While the current paper only acknowledges these aspects briefly, these findings will be expanded in a separate manuscript.

In conclusion, family members, CHWs and community elders felt that they supported women during pregnancy in ways that were consistent with their roles in the family and community. Women reported that they appreciated the support received from these groups. Support from husbands and families influenced health behaviours of women during pregnancy. These findings reinforce the importance of engaging the entire family through tailored intervention aimed at improving pregnancy outcomes. Following this piece of qualitative research, we made some important adaptations to our study protocol. Specifically, we involved the entire family during the consenting process, to ensure their support throughout the study. We also engaged with community leaders and health workers to enlist their buy-in for the study. Two intervention modules were developed for husbands focusing on their own health as well as how they could support their wives during pregnancy.

Abbreviations

FGDs Focused group discussions
ODQs Open discovery questions

ASHA	Accredited social health activist
CHW	Community health worker
COREQ	COnsolidated criteria for REporting Qualitative research
HeLTI	Healthy Life Trajectories Initiative
DOHaD	Developmental Origins of Adult Health and Diseases
NCDs	Non-communicable diseases

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12884-026-08888-7.

Additional file 1. FGD Guides: Topic guides prepared to lead the focus groups discussions containing open discovery questions relevant to each focus group.

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Authors' contributions
KK, GK, KGS conceptualised the study. MP, SN, GN recruited participants. SJ, TN, RM, AN, DK conducted FGDs. AN, DK, SJ, TN transcribed FGDs. SJ, TN did data analysis. TN wrote the first draft of the manuscript. KK, GK, KGS, SJ, MP, SM, MB, CF, PS, CV, DS, SK reviewed the manuscript and contributed to subsequent drafts.

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Data availability
The datasets of the transcripts of the FGDs analysed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate
The study was approved by the Institutional Ethics Committee of CSI Holdsworth Memorial Hospital, Mysuru (CSIHMH/ERU2018/1) and Vivekananda Memorial Hospital, Saragur (IRB11/2017-18). Written informed consent was obtained from all study participants.

Consent for publication
Consent for publication was obtained from all the participants involved in this study.

Competing interests
The authors declare no competing interests.

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