

**MALE INVOLVEMENT IN INFANT AND YOUNG CHILD CARE AND
ASSOCIATED FACTORS, AMONG FATHERS OF UNDER TWO CHILDREN
IN ARSI NAGELE DISTRICT, SOUTH ETHIOPIA, 2018**

By: Mulina Gobena, BSc

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Jimma, Ethiopia

JIMMA UNIVERSITY

**INSTITUTE OF HEALTH, FACULTY OF PUBLIC HEALTH,
DEPARTMENT OF POPULATION AND FAMILY HEALTH**

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Abstract

Background Male involvement in infant and young child care is participation of male in home based activities regarding infant and young child cares like feeding, diapering, changing clothes, playing, holding, bathing and etc. It has been described as a process of social and behavioral change that is needed for men to play in infant and child care with the purpose of children's wellbeing. However little has been explored about level of male involvement and associated factors in the study area.

Objectives the main objective of the study is to assess male partners involvement and its associated factors in infant and young child care among fathers who have children less than two year of age in Arsi Negele Woreda, west Arsi zone Ethiopia, 2018

Methods Community based cross sectional study design was conducted on a sample of 408 male partners" that has children less than two year of age. The study subject was selected using simple random sampling method. Multivariate logistic regression was used to assess relation between many independent variables with outcome variable t Significance level of $P < 0.05$ and association of variable was tested by using 95% confidence interval (C.I) and adjusted odd ratio. Two Focus group discussions were conducted to explore cultural norms maternal perceptions about male involvement and thematic analysis was used.

Result. Out Of 408 study Participants", 160 (39.2%) of male partners were involved in infant and young child care. Male partners who had poor attitude were 5.8%times less likely involved in infant and young child care when compared to male partners who had good attitude AOR 0.058 (95%CI, 0.031, 0.1). Male partner who have a number of children less than five were 7.362 times involved in infant and young child care than those who have five and above AOR 7.362(95%CI=3.717, 14.581). Male partners who had educational level of high school and above were 5.603 times more likely to involve in infant and young child care as compared to blow high school level AOR 5.603 (95%CI=3.048, 10.297).

Conclusion and recommendation: Male partner's involvement in infant and young child care was low. Educational level, number of children, and paternal attitude were the contributing factors for low involvement. In addition cultural norms and maternal perception affect male involvement in infant and young child care. To improve male partner involvement, policy makers and different stake holders has to adopt strategies/programs to promote male involvement, promote education, on importance of male involvement in infant and young child care.

Key words: Male involvement, Infant and young child care, Arsi Nagele, Ethiopia.

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Acronyms and Abbreviation

ANC	Antenatal Care
DHS	Demographic and Health Survey
EDHS	Ethiopia Demographic Health Survey
FGD	Focus Group Discussion
ICPD	International Conference on Population and Development
IM	Infant Mortality
MMR	Maternal Mortality ratio
MM	Maternal Mortality
SSA	Sub-Saharan Africa
SPSS	Statistical Package for Social Science
UNICEF	United Nation International Children and Education Fund
WHO	World Health Organization

CHAPTER ONE

1. Introduction

1.1. Background

Most maternal and child health programs seek to address the health needs of women and children by engaging and educating pregnant women and mothers in appropriate care seeking and care giving practices for themselves and their children. This focus on women, and a tendency to think about family planning, pregnancy, childbirth and child health as 'women's business', has often led to men being excluded from spaces and services in which they could learn more about reproductive, maternal and child health. Men tend to be the decision-makers within families and often govern behavior regarding use of contraceptives, the availability of nutritious food, women's workload, and the allocation of money, transport and time for women to attend health services.(1-3) In addition, men's behavior influences the reproductive health of both men and women and the health of their children. Yet men are often unable to make informed choices because they have not been included in reproductive, maternal and child health services and education.

Since the mid-1990s, when the International Conference on Population and Development in Cairo and the International Conference on Women in Beijing highlighted the importance of involving men in reproductive health programs, there has been an increasing appreciation of the potentially significant benefits for the health of men, women and children. (1,4-8) Despite growing awareness and political will in some settings, actual progress towards increasing the engagement of men in maternal and child health has been slow in developing countries. In developed countries, the role of the expectant father has only recently begun to be addressed. (11) Many countries face challenges at the implementation level and more research that draws together examples of interventions that have successfully increased male involvement are needed.(6)As UNICEF's State of the World's Children report 2009 notes: 'In the field of maternal and newborn health, men are generally missing from the studies(10).

Men can positively influence maternal and child health in a variety of ways and have a right to the information they need to make decisions to protect their own health and that of their family as well as their children's (11). A man can encourage and support infant and young child nutrition, including early and exclusive breastfeeding, and childhood immunization. Different studies

suggest that male involvement in infant and child care can be a more effective strategy than including women alone(6, 12).

Men may therefore play the role of ‘gatekeepers’ to health care (1, 1 3, 14), despite the fact that they often lack relevant knowledge (15). Men who are poorly informed or disengaged from pregnancy and childbirth may present serious barriers to women’s ability to act in their own and their children’s interests. Total or relative absence of the father figure during childhood has been associated with development disorders such as emotional problems, lower levels of cognitive development, drug abuse, behavioral disorders, and teenage pregnancy (12, 15, 16) Some studies observed better child cognitive development when the father is involved in their care, once his interaction with the child differs from the mother’s, with the introduction of novelties and challenges.²⁰ Greater social competence, lower behavioral disorder indices and better mental health were also observed among children who were directly cared by the father (12, 15, 16).

Studies emphasize that the differences in the type of care provided by the mother and the father, as fathers spend less time with their children and have a relationship with them through activities and games. There is consensus on the predominance of maternal responsibility in child care, despite women’s professional activities (17).

Conventionally the word father is used to denote a child’s male genetic parent, or the man married to the child’s mother. In this study we have chosen primarily to focus on fathers who meet this biological definition.

1.2. Statement of the problem

Globally there is substantial progress has been made in reducing child mortality since 1990. The total number of under-5 deaths worldwide has declined from 12.6 million in 1990 to 5.6 million in 2016 – 15 000 every day compared with 35 000 in 1990. Since 1990, the global under-5 mortality rate has dropped 56%, from 93 deaths per 1 000 live births in 1990 to 41 (18).

Although the world as a whole has been accelerating progress in reducing the under-5 mortality rate, Sub-Saharan Africa remains the region with the highest under-5 mortality rate in the world, with one child out of 13 children were dying before his or her fifth birthday. Inequity also persists within countries geographically or by social-economic status (18).

In Ethiopia infant mortality rate is 48 deaths per 1,000 live births and the overall under-5 mortality rate was 67 deaths per 1,000 live births which is below the WHO standard to reduce under-five mortality to at least as low as 25 per 1,000 live births in every country (19).

A male companion at infant and young child care is rare and in many communities, it is unthinkable to find male companions accompanying a woman to the infant and child care. However, men have social and economic power, especially in Africa, and have tremendous control over their partners. They decide the timing and conditions of sexual relations, family size, and whether their spouse will utilize available health care services. Involving men may further positively influence timely care seeking for childhood illness. Different studies show that fathers play an important role in decision-making around care seeking for children. (20)

Compared to non-Hispanic white women, black women with involved fathers had a two-fold increase in infant mortality, while black women with uninvolved fathers had a seven-fold increase in infant mortality. They estimated that lack of paternal involvement widens the black-white gap in infant mortality four-fold and that increased paternal involvement could result in a 65 to 75% reduction in excess mortality (21).

In 2008, infants of unmarried mothers had an infant mortality rate of 8.87 - 75% higher than the rate for infants of married mothers (5.06) (22.). Children born to cohabiting parents tend to experience poorer health overall when compared to those born to married parents (23).

Fathers can also indirectly impact the health of their children through their relationship with the mother. For example, when fathers participate in breastfeeding education with the mother, she is

much more likely to initiate breastfeeding than a mother whose partner does not participate in the education (24). This explores the potential health benefits for women, newborns and families associated with involving men more in infant and young child care.

Few studies have been conducted in Ethiopia concerning male partner involvement in promoting in infant and young childcare specifically child feeding. Therefore, this study aims at assessing male partner involvement in promoting in infant and young child care and its associated factors in Arsi Negele woreda which could serve as baseline information for creating an intervention in this study area. We also examine potential harms and challenges associated with involving men more, and describe strategies for male involvement that have been evaluated. The findings could inform and prompt policy makers and health professionals to give greater priority to reaching and involving men, and to develop effective policies and programs to overcome the challenges and take up the opportunity of men's interest.

1.3. Significance of the study

Male partners' involvement in promoting infant and young child care and its associated factor has not been well assessed generally in Ethiopia, and specifically in the study area, Arsi Negele district. It is necessary and timely to study this important issue in the woreda.

This study is therefore aimed to assess male partners' involvement in infant and young child care and its associated factors among fathers who have children age less than two years in Arsi Negele woreda, Oromia, Ethiopia. The study will provide basic data on the issue that may help local and national policy makers to implement and scale up to reduce infant and child morbidity and mortality in similar district in Ethiopia.

Furthermore, the findings of the study may enable the policy makers and health providers to design appropriate programs or interventions to curb the men's ambivalent attitudes towards infant and young child services. Consequently, the findings of this study will be also used as base line for further research

The study therefore, important in that it sought to investigate factors affecting male involvement in infant and young child care services.

Chapter Two

2. Literature Review

There is a clear rationale for including men in education on the importance of immunization. In focus group discussions and key informant interviews around child immunization held in Kampala, Uganda, researchers found that support from male partners was a major factor influencing women's decision to immunize children or not (25). While men had greater power than women regarding decisions around immunization, participants reported that men rarely attended immunization clinics, due to time and employment constraints and feeling 'out of place', thereby missing opportunities to receive health promotion messages. Yet, many men have not been exposed to breastfeeding messages and have insufficient knowledge to positively influence infant feeding decisions (26).

Engaging men may further positively influence timely care seeking for childhood illness. Studies in diverse settings show that fathers play an important role in decision-making around care seeking for children (27, 28). In a study in slums of Delhi that involved semi-structured interviews with men, none of the 400 men interviewed believed that the wife alone was responsible for decisions about taking an ill child to hospital (27). Some 58% thought the husband alone should make this decision and 35% thought both the husband and wife should make this decision together. Engaging men may also have benefits for maternal mental health. A recent review found that per natal mental disorders are common in low and lower middle-income countries. These disorders affect maternal wellbeing and the health and development of the baby (28).

2.1. Factors affecting male involvement in infant and young child care

2.1.1. Sociodemographic factor

Latino and African American fathers engage in more care giving and play behaviors than Caucasian fathers (29), and that biological fathers engage more with children than non-biological fathers (30). In addition, fathers who are employed may spend less time with their children (29; 31; 32) and mother employment has been shown to be related to levels of father involvement, such that fathers are more involved in childcare when mothers work more hours (32; 33). Fathers' level of education has also been shown to predict higher levels of verbal stimulation, one component of father involvement (29).

The result revealed that father's education and occupation had highly significant impact on father's involvement in child care and development (34). Thus, as many of these socio-demographic factors have been associated with fathering (29), we controlled for minority status and SES (a composite variable including income, mother and father education, and mother and father employment status), and mother and father working hours in its examination of the socio-emotional processes that may differentially determine father care giving and play trajectories.

2.1.2 Child characteristics

Temperament refers to biologically based individual differences in reactivity and regulation (35). Different studies on fathering suggest that compared to mother involvement, father involvement and father-child interactions are more affected by child characteristics, such as temperament (36). Previous research has found that fathers tend to engage more with temperamentally easy infants (37). This line of work relating infant temperament to father involvement has found that fathers engage less when the infant is challenging and more when the infant is easier. Child characteristics such as the child's gender and age have been found to be significantly correlated with father involvement. Fathers tend to have greater involvement with all boys and with girls who have more socialization skills (38). It is possible that as traditionally secondary caregivers, fathers have a choice whether to engage with a temperamentally difficult infant or not. It is also possible that interactions between an infant's temperament and other familial characteristics interact to affect parenting behaviors. For example, fathers exhibit a higher quality of co-parenting with temperamentally challenging infants when marital quality is higher (38). Additionally observed mothers, fathers, and their infants in a laboratory conflict paradigm and found that infants showed heightened negative responses, such as sadness, frustration, and deregulation in response to parental conflict. It is possible that father involvement with infants may be moderated by the infant's response to conflict. Thus, in addition to possible direct effects of temperament and marital conflict, the current study examined the interaction between infant temperament and marital conflict within the family system in relation to father involvement (39).

2.1.3 Father Characters

Father characteristics include variables such as age, education, employment status, confidence, role readiness, and beliefs of paternal role. These variables may all play a role in father involvement. Education was found to be correlated with involvement. High school completion, in particular, was found to be associated with increased amounts of involvement (40). More educated fathers were more found to be more likely to provide financial support (41) and be involved in their children's lives (42). Older fathers were found to be more involved (43) because they may have more emotional maturity and therefore be better able to accept their roles as fathers (44). Fathers with gender-equitable attitudes about parental involvement and those with a positive self-concept and self-esteem were also more likely to be involved with their children (45).

2.1.4 Family Characteristics

Maternal beliefs about the role of the father are one of the variables described in the family characteristics in the model and are an important variable in father involvement. Mothers may increase or decrease paternal involvement with their children (46, 47, 48). Nontraditional gender role attitudes are personal characteristics that were positively correlated with maternal support of father involvement (49). In one study, a modified Role of the Father questionnaire was used to determine maternal beliefs about father involvement. Maternal beliefs of acceptance or rejection of father involvement based on the measure were termed 'maternal gate keeping'. The findings showed that paternal perceptions of a father's own parenting ability and availability and actual involvement were moderated by the mother's beliefs about the paternal role (48).

The number of children in the family is another variable within family characteristics found that there appears to be a statistically significant correlation between number of siblings in the home and father involvement with infants. The higher number of siblings correlated with less involvement by the father with the infant ($p < 0.05$) (47). The quality of the relationship between mothers and fathers, both inside and outside of marriage, is a key determinant of father involvement. Mothers have also been identified to exhibit certain gate keeping behaviors that limit or shape the interactions fathers have with their children, strongly influencing levels of father involvement (50). In addition to mothers, maternal grandmothers have also been identified as gatekeepers, exerting influence that supports or limits fathers' involvement, particularly among teen fathers (51).

Conceptual Framework

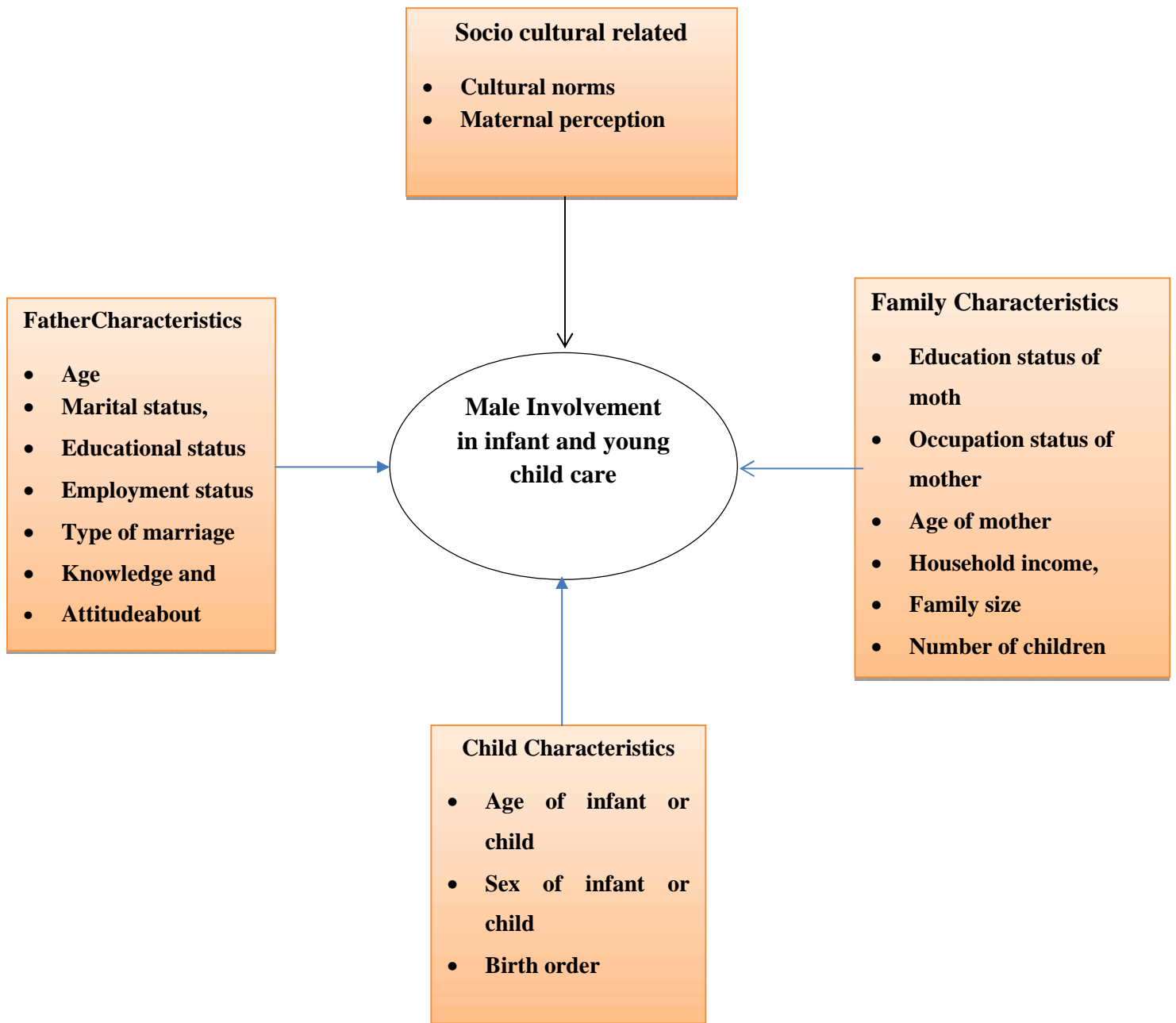


Figure 1 conceptual frame work of male involvement in infant and young child care adapted from literature (52)

Chapter Three

3. Objectives

3.1. General Objective

To assess male partners involvement in infant and young child care and its associated factors among in Arsi Negele Woreda, west Arsi zone Ethiopia, 2018

3.2. Specific Objectives

To determine magnitude of father involvement in infant and young child care

To identify factors associated with father involvement in infant and young child care

Chapter Four

4. METHODS AND MATERIALS

4.1. Study Area and Period

The study was conducted in Arsi Negele woreda, West Arsi Zone, Oromia regional state, Ethiopia. Arsi Negele woreda is one of the 15 woredas of West Arsi zone. The total population of the Woreda is estimated to be 204937, Male 101444, Female 103493 based on Arsi Negele woreda health office report of 2018. It is located 25 km North of Shashemene town which is the capital of West Arsi zone and 225 km south of Addis Ababa which is the capital city of Ethiopia. Majority of the population lives in rural areas. Arsi Negele is bordered in the south by Shashemene woreda, by west Shalla woreda and shalla hake, by east Kore woreda and Heban Arsi woreda and by North east shoa zone. The woreda is divided in to 34 kebeles (small administrative units) with health infrastructures of 7 health centers, 35 health posts, 7 private clinics and 4 Drug stores. There are also 4 secondary high schools and 46 primary (1-8) schools. The study was conducted from February to May 2018.

4.2. Study design

A community based cross sectional study design was employed.

4.3. Source population

All male partners who have children less than two years in, Arsi Negele woreda, during study period.

4.4. Study population

For quantitative: Randomly selected male partners having children less than two year of age and fulfill the inclusion criteria during the data collection period

For qualitative: The study population for qualitative were female of reproductive age groups who had encountered at least one birth.

4.5. Inclusion and exclusion criteria

4.5.1. Inclusion criteria for quantitative

Male partners who were 18 years old and above and had at least one child of less than two year

4.5.2. Exclusion criteria

Those Participants who doesn't permanently reside in the study area were excluded

Participants who were unable to communicate was excluded from the study.

4.6. Study Variables

4.6.1. Dependent Variables

The dependent variables was male partner involvement in infant and young child care

4.6.2. Independent variables

The independent variables included

Father characteristics of male respondents;

- ✓ Age
- ✓ Marital status,
- ✓ Educational status
- ✓ Employment status
- ✓ Type of marriage
- ✓ Knowledge
- ✓ Attitude

Family Characteristics

- ✓ Education status of mother
- ✓ Occupation status of mother
- ✓ Age of mother
- ✓ Household income,
- ✓ Family size
- ✓ Number of children

Child characteristics

- ✓ Age of infant or child
- ✓ Sex of infant or child
- ✓ Birth order

Socio cultural related

- ✓ Maternal perceptions,
- ✓ Cultural norms

4.7. Sample size and Sampling technique /Sampling procedures

4.7.1. Sample size

The sample size required for this study was calculated based on a single population proportions formula as follows.

$$n = \frac{(Z / 2)^2 p (1-P)}{d^2}$$

d²

$$n = ((1.96)^2 0.5 (0.5)) / (0.05)^2 = 3.8416 * 0.5 * 0.5 / 0.0025$$

$$n = 384$$

By considering non -response rate of 10 % the final sample size was 422.

Where: n is sample size, Z is standard normal distribution corresponding to significance level at = 0.05, d is margin of error assumed to be 5%, P = 50 % (There is no study in Ethiopia, specifically related to this topic.

For qualitative part:-two focus group discussions were conducted at two kebeles which contains eighth (8) participants per each FGD.

4.7.2. Sampling technique

A multi stage random sampling technique was used. In the first stage Simple random sampling technique was employed to select ten (10) kebeles (30% of total kebele) from thirty-four (34) kebeles of Arsi Negele district. In the second stage households were selected, households in each selected kebele with male partners who were 18 years old and above and had at least one child of less than two years were listed through conducting census. Then the numbers of households were selected from each kebele based on proportion to size of households having children less than two years. Finally, the required number of households from each kebele was selected using a

simple random sampling technique and respondents/male partners were accessed for data collection.

For qualitative study subjects was selected purposively. Selection of Participants was done with support of health extension workers and trained health workers on the basis of knowledge of a participant, or who will provide us with the best information about infant and young child care.

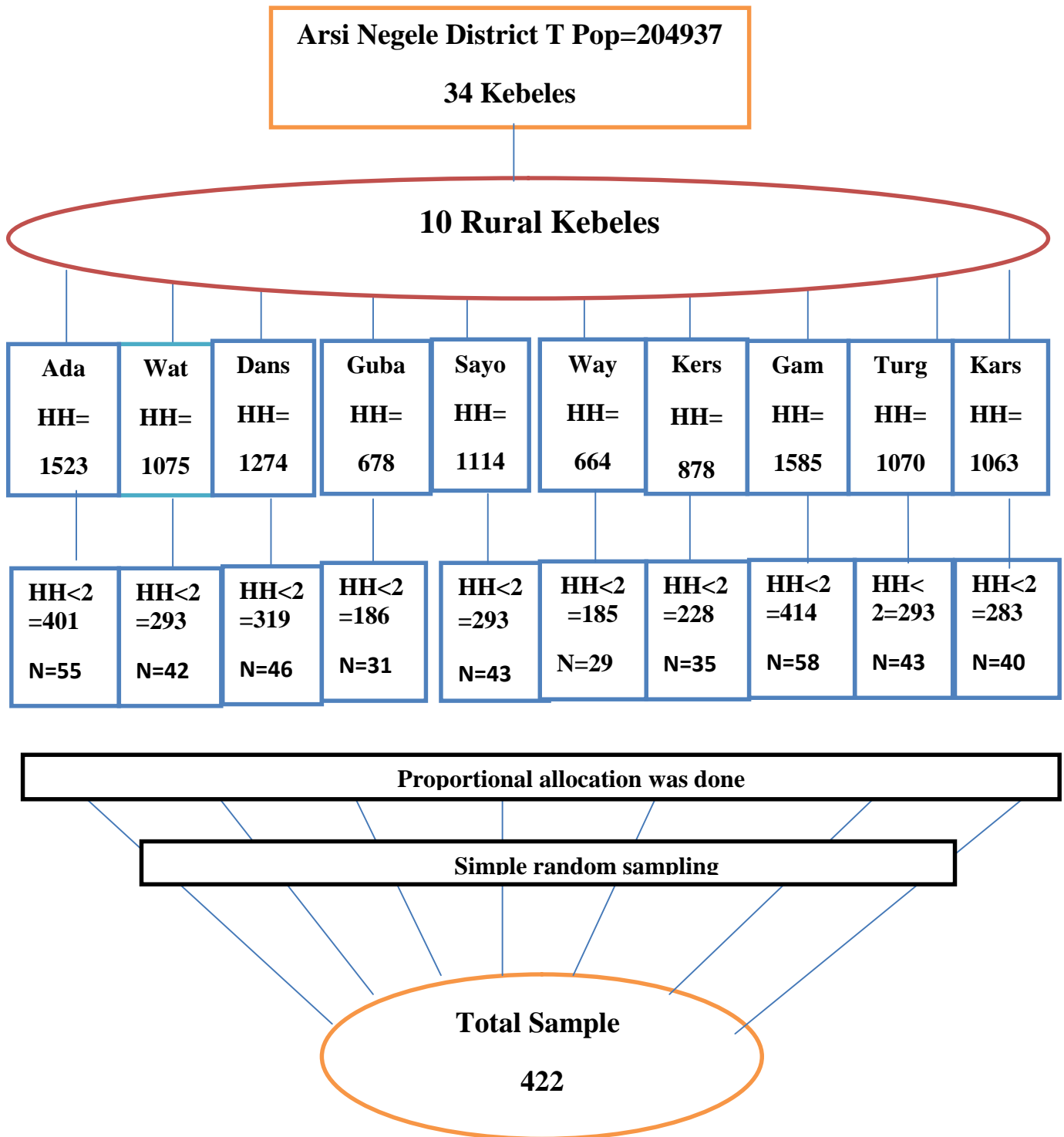


Figure 2 Schematic presentation of the Sampling procedure

4.8. Data collection instruments and Methods

4.8.1. Data collection instruments

A structured, interview administered questionnaire were used to collect data from the study participants. The questionnaire is designed in English and translated in to Afan Oromo language by the translator, and then translated back to English by a third person to check for consistency. The tool has four sections and adopted from different literatures and developed by principal investigator. The first section consists of socio demographic questions; the second section consists of knowledge and attitude of male partner about infant and young child care, the third section Male partner's involvement in infant and young child care (which contains 12 questions). For qualitative, focus group discussion guides was prepared. The prepared guide was focused on questions used to explore maternal perceptions, cultural norms and practices about male involvement in infant and young child care

4.8.2 Data collection methods

The data collection process was facilitated by the principal investigator to gather information from the study participants. This process was taken from April 1-20 /2018. Ten Diploma nurses were participated for data collection and 2BSc. Nurses who have experience in supervising was recruited for supervision activities. Training and field guide were prepared by the principal investigator, prior to the scheduled training. Then data collectors and supervisors were trained by the principal investigator before data collection about objectives of the study and how to collect the data. Focus group discussion was used for qualitative study and each discussion was taken between 45 minutes. The FGD discussion is carried out by trained moderator and Two MPH holder was participated in facilitation of FGD one was served as note taker and other as moderate. The overall discussion was reordered and transcribed

4.9. Quality control

The data collection instrument pretested for its relevance and clarity on 20 respondents to address the research tool problems appropriately and corrected prior to the actual data collection period. The pre-test was carried out in other kebele which is not adjacent but similar to study subjects. In addition, the data collectors were trained for two days on the techniques of data collection and the importance of disclosing the possible benefits and purpose of the study to the study participants before the start of data collection. Maintaining confidentiality of the participants throughout the whole process of data collection was discussed and ascertained during the

training. The researcher checks for completeness and consistencies of questionnaires filled by the data collector to ensure the quality of the data.

4.10. Operational definition

Infant and young child: -Children's of less than two years

Male partner: Male who has a spouse, whether with formal marriage or informal union

Male involvement in infant and young child care: -Participation of male in home based activities regarding infant and young child cares like feeding, diapering, changing clothes, playing, holding, bathing etc.

Knowledge

- ✓ **Good knowledge.** Those participants who score mean value and above
- ✓ **Poor knowledge.** Those participants who score below mean value

Attitude

- ✓ **Good attitude-** Those participants score mean value and above
- ✓ **Poor attitude-** Those participant score below mean

Father Involvement-

- ✓ **Involved-** Those participant who scored mean value and above
- ✓ **Not involved .**Those participant who scored below mean

Type of marriages

- ✓ **Monogamous:** Male partners who have currently one wife
- ✓ **Polygamous:** Male partners who have two and above wives

Zone: - Government administration hierarchy next to regional state.

District: - Government administration hierarchy that exists between kebele and zone.

Kebele: - The lowest Government administrative hierarchy that exists next to district

Measurement

Paternal knowledge of infant and young child care

To assess knowledge in accordance with good and poor, Mean score of the participants were calculated. In case of knowledge correct answer to the question was given '1' mark, '0' was given for wrong answer twelve knowledge related questions was used to assess male partners and mean (7.3) was considered to differentiate between participants with good and poor knowledge.

Parental attitude towards male involvement in infant and young child care

Paternal attitude is measured by 10 items each having 1 point Likert scale from strongly disagree (1) to strongly agree (5). To calculate the total score of each respondent, the points obtained from the 10 items by each respondent were computed and the maximum score was 48. Based on the result mean (29.28) score as a cut off points and paternal attitude categorized as poor attitude (if they score below the mean score or good attitude (if the score mean and above).

Involvement score

The involvement score consists of twelve questions including diapering, changing clothes, feeding, talking, asking about baby's care and financial support of the infant and data was obtained on this activities. Fathers checked each item as either performed within the last two weeks or not and immunization status in the last two months. The total score was based on one point given for each item that the father checked that he performed with a range of possible scores from 0 to 12. A score of 0 indicated the father did not perform any of the tasks in the past two weeks and a score of 12 indicates the father performed all tasks within the previous two weeks. To classify as involved and not involved the mean value was considered.

Involved = Obtained score Mean and above • Not involved = Obtained score below mean

4.11. Plan for data processing and Analysis

After data collection, each questionnaire was checked visually for completeness of the information captured by the questionnaire. After this validation, the investigator was started coding and entering of data using EPI data version 4.1. Then, data was exported to SPSS version 20 for analysis. After data were cleaned, frequency distributions were made for each variable. Both descriptive and binary/multiple logistic regression analyses were performed. A descriptive analysis

was done using frequency, mean and standard deviation. Binary logistic analysis was made and those variable with p-value (<0.2) were selected for multiple logistic analysis. Multiple logistic regressions were used to see association between one independent variable with outcome in order to control confounding factors. Significance level of $P<0.05$ and association of variable were tested by using 95% confidence interval (C.I) and adjusted odd ratio. The data obtained through qualitative method was coded and narrated to support the findings.

4.12. Ethical consideration

The study protocol was approved by IRB Institute of Health, Jimma University. Written Permission was sought from the responsible body of the study setting and informed consent was obtained from each participant after the data Collectors had explained the nature, purpose and procedures of the study. Participants complete the questionnaire only if they chose to do so. Anonymity and confidentiality of the data provided was strictly maintained. Participants were assured that their participation is voluntary, and they have every right to withdraw or refuse to give information at any time in the study without any penalties.

4.14. Dissemination plan

The findings of the study will be presented to Jimma University community and copies will be submitted to Graduate School and Department of Population and Family Health of the University. The findings of the study will be communicated to the stakeholders and target population through reports, conference, and workshop. Finally, efforts will be made to publish on local and international journals in order to communicate to scientific community

CHAPTER FIVE

RESULTS

5.1 Socio-demographic Characteristics of Male Partners

The response rate of this study was 408(96.7%). Out of 408, 110 (27%), 89 (21.8%) and 72 (17.6%) were in the age range of 24-29, 30-34 and 35-39 years respectively. The mean ages of the respondents were 31.86 years with SD 7.645 years. Most of the study participants were Oromo 344(84.3%) followed by Amara 46 (11.4%) and others 18(4.4%) which was Kambata and Walaita. Majority of the respondents were Muslim 241(59.1%) followed by, Orthodox 70 (17.2%), Protestant 63(15.4 %), Catholic 17 (3.7%) and the rest 4.7% were others (wakefata). A large proportion of the participants 295(72.3%) were farmer and 41(10.0%), 40(9.2), 31(7.6%), are merchant, government employee and private employee respectively.160 (30.9%) of the participants were primary school, followed by those who were not able to read and wrights 101(24.8%), secondary school 92(22.5%), Wright and read 54(13.2%) and diploma and above 35(8.6%). You can see from table 5.1

Table 5.1 Socio-demographic characteristics of male partner's involvement infant and young child care in Arsi Nagele district, Oromia, regional state, May 2018

Variable		Frequency	Percentage
AGE	15-19	10	2.5%
	20-24	52	12.7%
	25-29	110	27.0%
	30-34	89	21.8%
	35-39	72	17.6%
	40-44	40	9.8%
	45-60	35	8.6%
marital status	Never married	5	1.2%
	Married	397	97.3%
	Divorced	3	0.7%
	Widowed	3	0.7%
Religion	Muslim	241	59.1%
	Orthodox	70	17.2%
	Protestant	63	15.4%
	Catholic	15	3.7%
	other/wakefata	19	4.7%
Ethnicity	Oromo	344	84.3%
	Amara	46	11.3%
	Other	18	4.4%
Educational status	Unable to read and Wright	101	24.8%
	Write and read	54	13.2%
	Primary education (1-8)	126	30.9%
	Secondary education (9-12)	92	22.5%
	Diploma and above	35	8.6%
Occupation	Farmer	295	72.3%
	Government employee	40	9.8%
	Private employee	31	7.6%
	Merchant	41	10.0%
	Others	1	0.2%
Monthly income	0-800	72	17.6%
	801-3000	286	70.1%
	3001-10000	50	12.3%

5.2 Knowledge of male partners toward Infant and young child care

This study showed 193(47.3%) of the respondents were having good knowledge of infant and young child care, while a majority 215(52.7%) of the respondents were not. Majority of the respondents 392(96.07%) know about infant immunization and 16(3.93%) don't know. Only 188(46.07%) know correctly the minimum required number of infant to be vaccinated, 230(58.6%) know about the time to complete infant immunization.

Table 5.2 Male partners' knowledge of Infant and young child care in Arsi Negele woreda district, Oromia regional state, May 2018

	Frequency	Percent
Poor Knowledge	215	52.7
Good knowledge	193	47.3
Total	408	100.0

5.3. Male partner's perception on Infant and young child care

The study Results indicate that 203(49.8%) of the male partners had poor perception on infant and young child care while 205(50.2%) had good perception. In order to ascertain the respondents' level of perception on male partner involvement in infant and young child care, the respondents were asked to reflect their opinion on different questions concerning infant and young child care. The likert scale with scores ranking from 1=strongly disagree to 5=strongly agree was used. The score obtained was ranked using the mean score as the cut-off,

5.4. Level of male partners' involvement in promoting Infant and young child care

This study showed that 160(39.2%) of men involved in infant and young child care while more than half of the study participants 248 (60.8%) were not involved. Majority of the male partners 368(90.2%) were participated in supporting the infant's mother financially. Only few male partners 43 (10.5%) were involved or participated in infant and young child immunization and (47.5%) of men were also participated in Asking questions about care plan, treatments, or equipment in the last two weeks.

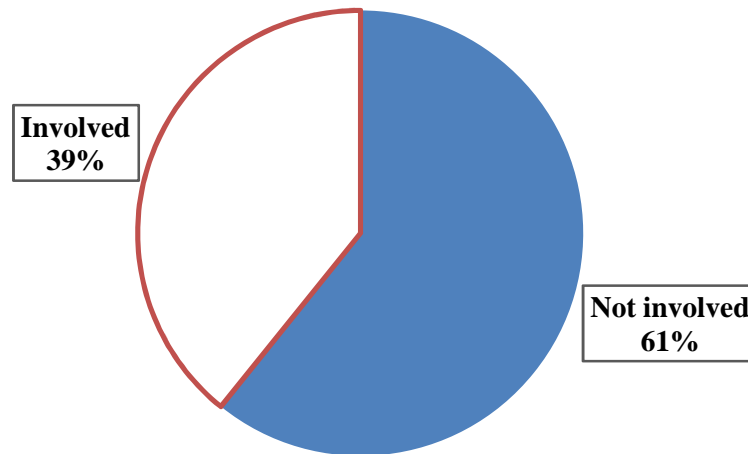


Figure 5.3 Percentage distribution of overall involvement of male on infant and young child care in Arsi Negele woreda, Oromia regional state, May 2018 in Arsi Negele woreda, Oromia regional state, May 2018.

From the focus group discussion, most of the respondents perceived that male involvement in infant and young child care is not necessary except providing money that needed to buy food and the like and supporting on few activities. As one respondent's said that

"I believe that men are less able than women to assume a caretaking role of infant and young child and women know more about infant and young child care. (Female, age 27FGD 2"

"Almost all activities like food preparing, bathing, feeding, are done by female. 'Men know only a few activities, and most of the time they are not willing to practice home care activities. (Female, age 31)FGDI."

"He would have liked to be involved in a few activities like holding the infant but because of the nature of his work...he wouldn't even be at home to decide with family [his wife and mother-in-law]. He has to go and look for money to care for his wife and children because if he stays at home and the family fall sick he cannot get money to send us to the clinic (female, age 26 FGDI)"

5.5 Factors influencing male partner's involvement in infant and young child care

In the bivariate analysis significant association was observed between the respondent, age, educational level, monthly income, knowledge and attitude and spouse education and occupation, sex of children, number of child, family size and birth order with male partner's involvement in-

fant and young child care .Male partners who were educational level of high school and above were 5times more involved in infant and young child care than below high school (95%CI,(3.353, 8.281)). Male partners' who have number of child less than five were 9 times more likely involved in infant and young child care than those who have number of child greater than or equal to five (95%CI=8.841(5.098, 15.332). Male partner who have male child were 1.6 times more involved than male partners who have female child (COR=1.626(1.087, 2.432). Male partner who were family size of 6 and below were 8 times more involved than family size of above 6 with (COR 8.124(4.732, 13.494). The odds ratio of male partners who had income between 3001 birr and above were1.63 times more involvement of infant and young child care compared to income less than 800 birr (COR=1.632(0.789,3.401). In the bivariate analysis significant associations were observed that male partners who have good knowledge had 2.57 times higher involved in infant and young child care than those who had poor knowledge in (COR =2.57(1.555,3.506)). Male partners who have poor attitude were 5.9%less likely to be involved in infant and young child care than those who had good attitude (COR =0.059(0.035, 0.1)). Age of respondents also other factors that affect male involvement. Male partners who were in the age group of 15-30 and 31-44 were 19 times and 6 times more likely to involved in infant and child care than those who were the age group of 40-60COR (95%CI4.667, 85.8561)COR (95%CI 1.495, 27.99) respectively. Others Socio-demographic variables were not statistically significant association with male partner's involvement in infant and young child care.

Table 5. 3 Selected candidate variables by bivariate analysis for multivariate logistic regression analysis of male involvement in infant and young child care

Variables		IN-VOLVED		COR 95%CI	P-VALUE
		Yes	NOT		
Age of respondents	15-30 years	109	90	19.98(4.667, 85.8561)	
	31-44 years	49	125	6.46(1.495, 27.99)	
	45-60 years	2	33		
Educational status of the respondents	Below High school	76	205		
	High school and above	84	43	5.269(3.353,8.281)	0.00
Spouse education	Below High school	123	228		
	High school and above	37	20	3.429(1.908,6.165)	0.00
Sex of the child	Male	96	119		
	Female	64	129	1.626(1.087,2.432)	0.018
Birth order	Fist	38	29	2.352(1.382,4.003)	

	Last	122	219		0.996
Number of child	Below 5	142	118	8.691(5.014, 15.065)	0.00
	5 and Above	18	130		
Family size	Below 6	140	117	8.124(4.732, 13.494)	0.00
	Above 6	19	129		
Monthly Income	0-800	36	36		
	801-3000	93	193	0.482(0.285,0.814)	0.006
	3001 and above	31	19	1.632(0.789,3.401)	0.191
Knowledge	Poor Knowledge	97	151		
	Good Knowledge	96	64	2.335(1.555, 3.506)	0.001
Respondent Perception	Poor Attitude	22	181	0.059(0.035, 0.1)	0.00
	Good attitude	138	67		

After adjusting for the effect of confounding variables using logistic regression, variables like male partner perception, education of respondents, and number of children were statistically significant association with male partner's involvement in infant and young child care, while the rest variables were not statistically significant at $p < 0.05$.

Male partners who had poor attitude were 5.8% times less likely involved in infant and young child care as compared to male partners who had good attitude AOR 0.058(95%CI, 0.031, 0.1)) p. value < 0.001 .

Number of children's were statistically significantly associated with male partner's involvement in Infant and young child care. Male partner who have a number of children less than five were 7.362 times involved in infant and young child care than those who have five and above AOR 7.362(95%CI=3.717, 14.581) p. value < 0.001 . Male partners who had educational level of high school and above were 5.603 times more likely to beinvolve in infant and young child care as compared to those blow high school level AOR 5.03(95%CI=3.048, 10.297)) with p. value < 0.001 .

Table 5. 4 Table that shows Multivariate logistic regression analysis result

Variables		INVOLVED		COR 95%CI	AOR 95%CI	P-VALUE
		Yes	NOT			
Age of respondents	15-50 years	109	90	19.98(4.667, 85.8561)	0.619(0.324,1.181)	0.146
	31-44 years	49	125	6.46(1.495, 27.99)	0.709(0.398, 1.261)	0.242
	45-60 years	2	33	1		
Educational status of the respondents	Below High school	76	205	1		
	High school and above	84	43	5.269(3.353,8.281)	5.03 (3.048, 10.297)*	0.00
Spouse education	Below High school	123	228	1		
	High school and above	37	20	3.429(1.908,6.165)	1.126(0.42, 2.864)	0.804
Sex of the child	Male	96	119	1.626(1.087,2.432)	1.35(0.771, 2.364)	0.293
	Female	64	129	1		
Birth order	Fist	38	29	2.352(1.382,4.003)	0.998(0.465, 2.143)	0.996
	Others	122	219	1		0.996
Number of child	Below 5	142	116	8.691(5.014, 15.065)	7.362(3.717, 14.581)*	0.00
	5 and Above	18	131	1		
Family size	Below 6	140	117	8.124(4.732, 13.494)	0.432(0.012, 15.714)	0.647
	Above 6	19	129	1		
Monthly Income	0-800	36	36	1		
	801-3000	93	193	0.482(0.285,0.814)	1.416(0.679, 2.953)	0.354
	3001 and above	31	19	1.632(0.789,3.401)	0.477(0.505, 4.324)	0.4761
Knowledge	Poor Knowledge	97	151	1		
	Good Knowledge	96	64	2.335(1.555, 3.506)	0.619(0.324, 1.181)	0.146
Respondent Attitude	Poor Attitude	22	181	0.059(0.035, 0.1)	0.058(0.031, 0.109)*	0.00
	Good attitude	138	67	1		

*p. value <0.05

CHAPTER 6

6. Discussion

The importance of the father-infant care during infancy and young age is more and more valued in society. Like the mother-infant bond, the first months of life together are crucial to establish the father's role. However, this issue is still little mentioned in the literature (55). Father involvement in infant and young child care refers to the tasks the father develops on a daily basis and which can be identified by any person.

In this study male partner involvement in infant and young child care were 39.2%. The view of the fathers was generally confirmed by the mothers. Mothers agreed on the improvement of fathers' involvement of routine child-care, compared to their current experiences. However, they all underlined that because of the deep cultural and traditional beliefs and practices in the community, routine child-care and feeding activities and related issues still weighed heavily on the mothers' shoulder.

“Traditional and cultural influence favors for males. Therefore, almost all activities related to child care are considered to be the responsibility of mothers. He would have liked to be involved in a few activities like holding the infant but because of the nature of his work...he wouldn't even be at home to decide with family [his wife and mother-in-law]. He has to go and look for money to care for his wife and children because if he stays at home and the family fall sick, he cannot get money to send us to the clinic (female, age 31 FGD1)” Which is slightly lower than study conducted in Nepal (41%) and in USA on fathers of under-five children's reported were 49.8%(53). This difference might be the result of cultural differences, community norms and the difference in study population and study conducted in Nepal includes both rural and urban.

In this study, male involvement in infant and young child care were significantly associated with respondent level education (AOR= (5.603 [3.048, 10.297]) which is similar to study conducted in Nepal district of Bankewith level of education (0.0001) and study conducted in southern city of RajniKhand, RuchiKhand and Banglabajar on assessment father involvement in child care 2013 which show that paternal involvement in child care and development was dependent or influenced by paternal education (54).

In this study numbers of children were also found to be among the factors affecting male involvement in infant and young child care AOR=7.362(3.717, 14.581) in line with study conducted North Wabash Ave., Chicago, in 2007 on paternal child care attitudes. The number of children in the family was statistically significant correlation between number of siblings in the home and father involvement with infants. The higher number of siblings correlated with less involvement by the father with the infant ($p < 0.05$) (47).

“For me, most of fathers were not participate in infant and young child care, as to me this is the problem of knowledge gap, so in the future they have to get education and participate in infant and young child care FGD female age 25).

Male partners who had poor attitude were 5.8% times less likely involved in infant and young child care when compared to male partners who had good attitude AOR 0.058 (95%CI, 0.031, 0.1) p . value <0.001 .this is similar to study conducted in USA in 2006 shows that positive paternal perception towards infant and young child care is significantly associated with level of male involvement in infant and young child care (56).

Most of the time my husband consider activities like bathing, diapering food preparation for children considered as female or wives duty and they did not participated actively on home activities, he is involved in activities like money provision during illness, and taking child to health facilities “(FGD, Gambelto village).

Limitations of the Study

- This study setting was rural areas; therefore, the findings could not be generalizable in urban area.
- Recall bias could be present although the study included fathers of children less than two year.
- The study participants in FGD were only females and In-depth interview was not done.

7. Conclusion

This study was conducted to assess the level of male partners in Involvement in infant and young child care and to assess factors associated with. Accordingly; it was found only 39.2% male partners are involved in infant ad young child care. Educational level, number of children, and paternal attitude were the contributing factors for low involvement. In addition the study also highlighted the negative cultural norm and maternal perception toward male involvement in infant and young childcare inhabits male involvement in infant and young child care. There is also existence of specific gaps in paternal perception in promoting infant and young child care which affect male involvement in infant and young child care and 49.8% of male partners have poor perception of male involvement in infant and young child care.

8. Recommendation

For policy makers and government

- ✓ Policy makers should increase male partner involvement, by strengthen strategies and Programs that will promote male involvement in infant and young child care through adult education
- ✓ The government should be supported, monitored and evaluated the strategies of educating men on their roles and responsibilities in promoting male involvement in child care from time to time to ensure that they succeed
- ✓ The government should also improve family planning use to minimize hi fertility

Arsi Negele woreda

- ✓ The health workers and health extension worker in Arsi Negele should create awareness on male partner involvement and its benefits through, health education at community level; conducting community conversation at all HAD groups.

For further researchers

- ✓ The study recommends that to do further research in quantitative and qualitative by incorporating in-depth interview and FGD to address the problem associated with male partner involvement in infant and young child care.

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Annex

Annex I: Information Sheet and Consent Form: (English Version)

Information Sheet

Greeting!

Hello!

Dear respondents my name is _____ and I am working as data collector for the study being conducted in this kebele by Mr. Mulina Gobena who is studying for his master's degree at Jimma University, Institute of health science, and collage of public health, department of population and family health postgraduate study. I kindly request you to lend me your attention to explain you about the study and how you have been selected as study participant.

Purpose-- To assess male Involvement and Its Associated factors in infant and young child care among Households who have children less than two year of age in Arsi Negele woreda, Ethiopia, 2018.

Procedure and duration: First of all I selected you to take part in this study randomly. There are different questions to answer. Interview questionnaire will be used which will be take 20-30 minutes.

Risks: The risks of being participating in this study are very minimal, only taking few minutes.

Benefit: At this moment you may not get any direct benefit by being involved in this study but the information you provide is very important to solve problems of infant and young child related problems.

Confidentiality: The information that you provide us will be confidential. The questioner will be coded to exclude showing your name on questionnaire and consent form.

Rights: Participation in this study is fully voluntary. You have the right to declare not to participate in this study and you have the right to with draw from participating at any time.

Contact address: If there is any questions or unclear idea any time about the study or the procedures, do not hesitate to contact and speak to principal investigator with cell phone number: **0988461723** or e-mail address **mulinagb@gmail.com**.

I have read this form and I comprehend and understand all condition stated above.

Are you willing to participate in this study?

1. No (say thank you) 2. Yes (continue interviewing)

Consent Form

I have read the information sheet concerning this study (or have understood the verbal explanation) and I understand what will be required of me and what will happen to me if I take part in it. I also understand that any time I may withdraw from this study without giving a reason and without me or my family's routine service utilization being affected for my refusal.

Participant's signature _____ Date _____

Interviewer signature certifying that the informed consent has been given verbally.

Interview's name _____

Interview's signature _____ Date _____

May I continue the interview?

1. Yes _____ Continue the interview
2. No _____ Stop the interview and thank the respondent

Result: (to confirm for completeness)

- A. Questionnaire completed _____
- B. Questionnaire partially completed _____
- C. Participant refused _____

Annex II.English version questionnaires for interview

Identification Information

001. Identification number. _____

002. Kebele _____

Section.1.socio-demographic characteristics of male partners

No	Question		Re- mar k
101	Age of respondents in years	-----	
102	What is your marital status	1.Never married 2.Married 3.Divorced 4.Wedowed 9. Other	
103	How many wives do you have?	One Two and above	
104	Age of your wives	_____	
105	What is your religion of respondent	1.Orthodox 2.Muslim 3.Protestant 4. Catholic 9 .Others	
106	Ethnicity the respondent	1. Oromo 2. Amhara 3. Tigre 4. Gurage 5. Others	
107	What is your Educational status	Illiterate Write and read Primary education (1-8) Secondary education (9-12)	

		Diploma and above	
108	What is Educational status of your spouse	Illiterate Write and read Primary education (1-8) Secondary education (9-12) Diploma and above	
109	What is your occupation	1. Government employee 2. Private employee 3. Farmer 4. Merchant 9. Other	
110	What is your spouse Occupation	1. Government employee 2. Private employee 3. Farmer 4. Merchant 9. Other	
111	Number of children's do you have	_____	
112	Age of the child in month (child less than 2 yrs)	_____	
113	Sex of the infant and young child less than 2 years	Male Female	
114	Birth order of infant and young child less than 2 years	First Second/third End/Last	
115	Number of your family size	_____	
116	Monthly income	_____	

Section Two

Male partners' involvement in infant and young child care

Have you participate in taking the infant to health facilities for immunization (in the last two months)

S/No	Questions	Yes	No
201	Diapering	Yes	No
202	Bathing	Yes	No
203	Feeding	Yes	No
204	Changing clothes of your infant or child	Yes	No
205	Holding my swaddled infant	Yes	No
206	Talking, singing, or reading to the infant	Yes	No
207	Supporting the infant's mother emotionally	Yes	No
208	Asking questions about care plan, treatments, or equipment	Yes	No
209	Attending care conferences about my infant in the last two month's	Yes	No
210	Supporting the mother financially	Yes	No
211	Taking the infant to clinic or health facilities during illness (in the last three months)	Yes	No
112	Taking the infant to health facilities for immunization (in the last two months)	Yes	No

Section three

Knowledge and attitude of male partner involvement in infant and young child care

3. Male partner's knowledge of infant and young child care

301	Have you ever heard about a care given to infant and young child	Yes No	
302	If yes to question Number301, from where have you heard?	Radio TV HEW Health facility Other	
303	If yes to question number 301 what type of care is given to infant and young child.	Immunization Taking ill child to health Feeding Bathing Changing clothes/Diapering Playing with child Supporting mother to breast feed her child	
304	Do you know about infant and young child immunization	Yes No	
305	How many time one child can be vaccinated to complete immunization?	Once 2. Twice 3. Three times 4. 4-5 times	
306	By what age the child should complete vaccination	9 month or less than one year's Two Years Three years 4 and above	
307	At what age infant started food	Immediately after birth Two month Four month Six month	

		One year Other	
308	Have you prepared food for your child	Yes No	
309	If yes to Ques. No 308 what item of food you used	Only a single food What we eat Different fruits and vegetables Combination of different foods and fruits Others	
310	In the last three month have you take your child to health facility with your wife?	Yes No I don't know	
311	If No to Ques. No 310 why?	It is mother busyness I am busy Long hrs waiting at health facilities Long distance of health facilities Lack of money Other	
312	Do you know the importance of taking the sick child to health facilities with your spouse?	Yes No	
313	If yes to Ques.No.312 what is the importance	To help the mother To know the information given from HF To facilitate service at HF To provide additional money (if needed) Others	

3.2. Male partner's attitude of infant and young child care

Do you believe that male involvement in taking the infant to clinic or health facilities during immunization is very important for the health of the child and families?

S/No	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
321	Diapering	1	2	3	4	5	
322	Bathing	1	2	3	4	5	
323	Feeding	1	2	3	4	5	
324	Changing clothes of your infant or child	1	2	3	4	5	
325	Holding my swaddled infant	1	2	3	4	5	
326	Talking, singing, or reading to the infant	1	2	3	4	5	
327	Supporting the infant's mother emotionally	1	2	3	4	5	
328	Asking questions about care plan, treatments, or equipment						
329	Attending care conferences about my infant in the last two month's						
330	Supporting the mother financially	1	2	3	4	5	
331	Taking the infant to clinic or health facilities during illness (in the last three months)	1	2	3	4	5	
332	Taking the infant to health facilities for immunization (in the last two months)	1	2	3	4	5	

Section four

Interview Guides for FGD.to explore socio cultural barriers of male involvement of infant and young child care

Interview Guides for Focus group discussion.

1. What is your thought on father involvement in routine infant and childcare practices?
2. How do fathers participate in routine infant and young childcare practices?
3. What are the challenges of fathers in infant and young child care practices and what inhibits them?
4. What have to be done to change fathers and community perception of infant and young child care?