# MOTHER'S EDUCATION AND ANTENATAL CARE PRACTICES: A CASE STUDY FROM MANIPAL TEACHING HOSPITAL, POKHARA, NEPAL

A Dissertation Submitted to Tribhuvan University, Faculty of Humanities and Social Sciences, Prithvi Narayan Campus, for the Partial Fulfilment of the Requirement for the Degree of Master of Arts in Sociology

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# TRIBHUVAN UNIVERSITY त्रिभुवन विश्वविद्यालय

# Prithvi Narayan Campus पृथ्वीनारायण क्याम्पस

(A QAA Certified Institution, Accredited by UGC, Nepal)

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#### LETTER OF RECOMMENDATION

This is to certify that Mr. Meraj Ahmad has completed this dissertation entitled "Mother's Education and Antenatal Care Practices: A Case Study from Manipal Teaching Hospital, Pokhara, Nepal' under my supervision and guidance. I therefore recommend and forward this dissertation for final Approval and acceptance by the dissertation .committee.

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#### LETTER OF ACCEPTANCE

This dissertation entitled 'Mother's Education And Antenatal Care Practices: A Case Study From Manipal Teaching Hospital, Pokhara, Nepal' submitted to the department of Sociology, Prithivi Narayan Campus by Mr Meraj Ahmad in the partial fulfillment of the requirement for the Master's degree in Sociology has been approved by the undersigned members of dissertation evaluation committee. Therefore, we accept this dissertation as a part of the mentioned degree.

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# LIST OF ABBREVIATIONS

ANC Antenatal Care

BCC Behavior Change Communication

CEB Children Ever Born

DHS Demographic and Health Survey

DHS Department of Health Services

EDD Expected Date of Delivery

FCHV Female Community Health Volunteers

HIV Human Immune Deficiency Virus
MCH Maternal and Child Health Care

MMR Maternal Mortality Rate

MOHP Ministry of Health and Population

NDHS Nepal Demographic and Health Survey

NHSP2 Nepal Health Sector Programme-2

PHCC Primary Health Care Centre

PMTCT Prevention of Mother to Child Transmission

PNC Postnatal Care

SBA Skilled Birth Attendant

SDG Sustainable Development Goal

SPSS Statistical Package for Social Sciences

TTBA Trained Traditional Birth Attendants

UNICEF United Nation International children's Emergency Fund

USAID United States Agency for International Development

USG Ultra sonogram

W.H.O World Health Organization

# **ABSTRACT**

The main objective of this study was to analyze the effect of mother's education on Antenatal practices. It was a descriptive study. Data collection tool and techniques were structured questionnaires and face to face interviews. Study was conducted at Manipal Teaching Hospital, Pokhara, Nepal. The study populations were women who had just delivered babies at Manipal Teaching Hospital. Due to Covid outbreak in the community, data collection period was limited from 1<sup>st</sup> Feb 2021 to 27th Feb 2021, during which 340 respondents were interviewed. Data were entered and analyzed using SPSS software. Descriptive results were presented in tabular or graphical form as number and percentages while association between dependent and independent variables were expressed in terms of p value and odd ratio using logistic regression.

About one-half (52.7%) of the women had sought 4 or more ANC visits, by age, about 7 in every 10 women (69.7%) in their 20s had 4 or more ANC visits in their last pregnancy. Women's education has strong effects on the utilization of 4 or more ANC visits. Women with higher level of education were 34 times more likely (95% C.I) to utilize at least 4 ANC than women with no education. The analysis result shows significant effect of education and ANC at secondary (OR 11.2; 95% CI) and primary (OR 6.2; 95% CI). The likelihood of taking ANC 4 services 2 times more and 6 times more respectively for women who listen to radio at least once a week (OR 2.6; 95% CI) and the women who watch TV at least once a week (OR 6.4; 95% CI). The strongest positive influence on ANC use was due to social media using habits. ANC utilization is 40.5 times more among women who had access to internet and social media. The result is significant at p<0.001. In this study mothers' education and ANC visit was statistically significant. Mass media played a central role in educating people about their health need. Further intensive research is needed aimed to examine the impact of mass media exposure to the ANC service utilization.

#### **CHAPTER I**

#### INTRODUCTION

# 1.1 Background

The aim of this study was to find the relationship of educational status of women and Antenatal Care Practices. It is now widely acknowledged that health is not just a medical issue but a product of complex interaction of individual social factors and processes. Health is thus product of the interaction between our biology, and the physical, socio-economic, cultural and political environment in which we live and act.ie. It is socially determined (Bromet, 2011). Thus differences in people's health status arise from biological differences and from differentials in socio-economic status as well.. Social class, race and ethnicity, gender and a range of other social determinants may influence health seeking behavior (Ravindran, 2001). Hence in this study the role of socio-demographic, and economic factors in utilization of Antenatal care practices were given special consideration to understand sociological influences of individual health seeking practices.

Though Pregnancy, is a physiological processes, but they are always socially and culturally shaped and managed (Ravindran, 2001). However women and men experiences many similar health challenges in life but pregnancies and childbirths are the challenge that are only faced by women which carry health risks and require health care (WHO, 2009). Care taken during pregnancy is termed as antenatal care (ANC). It is health assessment of mother and growing child inside womb (fetus) throughout her pregnancy at regular interval and at specific time particularly first visit within three months after conception, second and third visits after three months to ensure the outcome results into healthy baby and healthy mother. ANC services are provided by trained health workers like ANM, Nurses and Doctors to monitor fetus growth, and identification of mothers' health problems and provide essential health services to them .One of the most important component of antenatal care is to offer information and advices to women about pregnancy related complications and possible curative measures for early detection

and management of complications. Antenatal care can also play a critical role in preparing a woman and her family for birth by establishing confidence between the woman and her health care provider and by individualizing promotional health messages (WHO, 1996). Women can access antenatal care services either by visiting a health centre where such services are available or from health workers during their domiciliary visits. Ideally, this care should begin soon after conception and continue throughout the pregnancy.

In Nepal, ANC services are provided as a component of primary health-care services for pregnant women. ANC services are available from all public health facilities in Nepal including from community level female community health volunteers and Health Post and Primary Health-care Centers (PHCC), Similarly, FCHVs carry-out awareness raising activities and provide iron and folic acid at the community level. Furthermore, government of Nepal has initiated Aama program (free maternity care and transport incentives to promote four ANC.) since 2009 (DOHS, 2014). It is the first step to prevent not only the mother but also the child's health (Bloom, Lippeveld, 1999). Government of Nepal recommends antenatal visits at fourth, sixth, eighth, and ninth months of pregnancy (MOH & Population, 1998). Thus ANC offers pregnant women an entry point to the health care system, providing appropriate screening intervention and treatment throughout pregnancy, and encouraging women to seek a skilled birth attendant for their delivery (Zahr 2003).

Chan, 2004 stated that the initial visit is the most important visit for all pregnant women however it do not give information about the completeness and components of the care provided. World Health Organization (WHO) recommends that all women should have at least four antenatal visits for a normal pregnancy and at least eight visits for complicated cases, to avoid the health risk during pregnancy (WHO, 2016). The main purpose of the four visits in case of normal pregnancy is to identify the complications and treating them in addition to addressing behavioral factors of patients. Within this framework government of Nepal has also made a provision of Incentive for 4 ANC visits by providing cash payment of NRs. 400. The amount is given to women who made complete four ANC visits at the 4th, 6th, 8th and 9th month's interval (DOHS, 2018). Despite

this provision, still there are many cases that do not have adequate number of visits and the care may not be provided by skilled birth attendants. Mothers who had not received good quality ANC were found to be at more at risk of having low birth weight babies (DOHS, 2018). Studies have shown that health status of people is influenced by variety of factors which are outside the domain of public health system (Preda, 2015).

A number of factors like women's education, income, parity and mass media seeking habits effect a woman's likelihood of attending ANC contributing to enormous disparities in accessibility and utilization even if they are provided high quality services (WHO, 2003). Utilization of ANC differences exist within and among the countries. The proportion of women who attend ANC is low especially in developing countries which account for poorer ANC utilizations compared to the developed countries. Different socio-demographic factors have been found to be related with the use of antenatal health care visit (Ravindran, 2001). Education is among one of them. Awareness among mothers and their families on importance of ANC visit is one of the important factors for ANC utilization, which is possible only through education and other mass and social media seeking practices. Women's health seeking behavior is highly influenced by their educational status (Joshi et al., 2014). There is a significant association between mother's education and utilization of ANC services. Studies shows that preventive health care services are used to a greater extent by mothers with higher education than there less educated counterparts (Govindasamy, 1997). More educated women are more likely to receive antenatal care, during pregnancy, and to have their deliveries attended by trained personnel (Hobcarft, 1993). According to worldwide survey study, maternal mortality rate tend to be higher in countries where female literacy rate is lower than male counterparts (McAlister, 2006).

Previous studies have also shown women's education to be a powerful indicator of in reducing maternal mortality and women's education can provide the knowledge to demand and seek proper health care. As Caldwell (1979) stated that educated women are considered to have greater awareness of the existence of maternal health care services and benefits in using such services. They are likely to enjoy

more autonomy within and outside the household and the skill acquired from schooling enable women to communicate with the health professionals and demand health care services. Educated mothers are also likely to have improved knowledge and information on modern medical treatment and have greater capacity to recognize specific illness. As the health care seeking behavior is a complex phenomenon which can also be influenced by socio-cultural, socio-demographic and socio-economic settings, it needs a contextual thorough investigation.

#### 1.2 Statement of the Problem

Globally, some 550,000 pregnancy-related deaths occur every year, 90% of which are in developing countries. Twenty-five percent of maternal deaths occur during pregnancy (WHO, 2014). An estimate from United Nations International Children's Emergency Fund (UNICEF) in 2015, shows that 800 women and 2700 newborns died every day due to the complication of pregnancy and childbirth. ANC and delivery by the skilled attendant are vital to prevent such deaths (UNICEF, 2013). Maternal deaths are being increasingly concentrated in South Asian nations, the nations that lack quality services. Disparities exist all over the world in terms of access to service with poor, uneducated women coming from the lower wealth quintile having less access to much need ANC, there exists a large disparity between developed and the developing nations. The developing countries have 14 times higher maternal mortality ratio as compared to the developed countries (WHO, 2015). South Asia alone accounts for 66,000 maternal deaths a year, which is around 22% of the global total (WHO, 2015) and the disparity on access has not changed in the last 15 years. Hence, concrete and specific work addressing the issues related to inequality is needed to narrow this gap (UNICEF, 2013). The maternal mortality ratio (MMR: the number of deaths per 100,000 live births) is a measure of the risk of death once a woman becomes pregnant. Nepal is a country with a maternal mortality ratio of 239 per 100,000 live births, which is higher than its South Asian neighbors such as India (174), Bhutan (148), Bangladesh (176), Myanmar (178), Pakistan (178), and Sri Lanka (30) (WHO et al. 2015). With the formulation of the National Safe Motherhood Policy in 1998, safe motherhood has been a priority program in Nepal. Under the safe motherhood program, every woman is provided with essential maternal health care services until now through the four-tire district health care system. Due to the intense policy action, ANC coverage has increased from 2011 to 2016, 58 to 84% respectively (DHS, 2017). However, inequality, exclusion, and under- utilization in health care services continue in regions of Nepal (Mehata, 2017). Almost 15% of Nepalese women reported no ANC visits, and only half (50%) reported four or more ANC visits. The recommended number of visits is not always met (Joshi, 2014). A study conducted in Nepal revealed that educated women were more likely to attend four or more ANC and receive higher quality ANC (Neupane, 2014). Very few studies have focused on the quality of ANC services in low-income countries like Nepal, and most of them are community- based study. Hence the present study was conducted at tertiary-level hospital of Nepal to assess mother's knowledge and ANC seeking practices.

# 1.3 Objectives of the Study

#### **General objectives**

The general objective of the study is to explore mother's education and its associated social factors with the utilization of ANC practices in Pokhara Metropolitan city.

#### **Specific Objectives**

- 1. To explore mother's educational status and social factors effecting Antenatal practices.
- To find out relationship of ANC practices with some important social factors
  effecting women education i.e. age, occupation, employment, patty, children
  ever born.
- 3. To explore and find out association of women's mass and social-median seeking habits with ANC practices.

#### 1.4 Rational of the Study

Nepal is a signatory to the Sustainable Development Goals (SDGs), which have set ambitious targets for the country to reduce the MMR to 70 per 100,000 live births and neonatal mortality to 12 per 1,000 live births, and to achieve coverage of 90% for four ANC visits by 2030 (National Planning Commission, 2017). Nepal has been one of the few low- and middle-income countries that achieved several MDGs well before 2015 with an increase in the utilization of ANC by skilled health providers from 2011 to 2016, from 58% to 84% respectively (DHS, 2017). However, inequality, exclusion, and under-utilization in health care services continue in regions of Nepal (Mehata, 2017). Almost 15% of Nepalese women reported no ANC visits, and only half (50%) reported four or more ANC visits. The recommended number of visits is not always met (Joshi, 2017). In 2015, Maternal Mortality Rate (MMR) in developing countries was 239 pregnant women per 100,000 live births, compared with 12 per 100,000 in developed countries (WHO, 2016) while almost all pregnant women in high-income countries have had at least four prenatal visits, and only 40% of pregnant women in low-income countries have received more than four Antenatal care (MoH,2012). Currently, Sustainable Development Goals have high ambition to reduce maternal mortality to less than 70/100,000 live births by 2030, with an annual decline rate of at least 7.5% (MoH, 2012). Thus, there is a need for more focused intervention to save the lives of mothers and children. Hence, Antenatal care (ANC) is a key strategy to reducing maternal and neonatal morbidity and mortality. While the benefits of attending ANC are widely acknowledged, millions of women in developing countries are not receiving such care as per recommended standard of frequency and quality (MoH, 2017). The proportion of women who attend ANC is low especially in developing countries which account for poorer maternal health indices compared to the developed countries. In Nepal, it is about 69 percent of women who attended 4 or more ANC visits in the last 5 years preceding the survey (MoH, 2017). Still, there are 30 percent women left behind. In 2011, 58 percent of mothers received antenatal care from a skilled provider (a doctor, nurse, or midwife) for their most recent birth in the five years preceding the survey. Twentysix percent of mothers received antenatal care, Fifteen percent of women received

no antenatal care for births in the five years before the survey (MOHP, 2012). In addition, being a researcher I have a keen interest to know how likely the mother's education effect ANC utilization in Pokhara. Furthermore, this type of hospital based study is very rare in Nepal. In addition, women who visit in tertiary care hospital for seeking maternity care service have wide variations in terms of ecological regions, districts, social status, family backgrounds, place of residence, topography, culture, and diverse demographical characteristics would allow us an opportunity to get information from women with diverse sociological characteristics affecting Antenatal care seeking practices through this survey, especially to understand the linkage between women's education, affected by other social covariates in the utilization of ANC seeking practices in Nepal. Hence conducting this study may add greater significance value to our existing knowledge.

# 1.5 Limitation of the Study

- Since it was a hospital based study, and the respondents belonged to different districts, the results may not be generalized to population of Pokhara Metropolitan city only.
- Covid-19 outbreak had limited to spend adequate time for data collection.
- Since the aim of the study was to collect data with mothers recently delivered babies, many educated childbearing women came to seek regular ANC checkups during that period were excluded from the survey.

# 1.6 Organization of the Report

The contents presented in this dissertation are divided into six chapters in which first chapter included Background of the study that described concept and brief overview of ANC status worldwide and in Nepal followed by statement of problems, justification of study, research objectives and research questions followed by limitation of study. Second Chapter talks about literature review followed by explanation of conceptual framework. Third Chapter gives detailed information of Research Methodology used which consisted of rational of selecting

study Area, study designs used , data collection tools and techniques, sampling technique and sample size, data processing and analysis. Fourth Chapter presented descriptions of important socio-demographic and economic factors which .Fifth chapter presented association of ANC practices with educational status and mass media seeking habit expressed in terms of p value and odds ratio. Chapter six summarizes the study result, and providing conclusion .It was followed by list of References cited.

### **CHAPTER II**

#### LITERATURE REVIEW

# 2.1 Background

This chapter includes following topics theoretical review that include the behavioral model of health service use (Anderson 1995), predisposing, enabling, need factors, social factors on ANC utilization, women education, husband education, women's exposure to mass media, women autonomy in the family, women's employment, birth order, review of previous studies, exposure to media and ANC services and conceptual framework.

Pregnancy, birth and transition to motherhood are physiological processes, but they are always socially and culturally shaped and managed, forming a major event in the lives of individual women, families and communities. Health is not just a medical issue based on biological factors and medical intervention. Health is also a social Issue, and where we live, what we do, who we interact with, and the nature of these interaction and relationship, all effect our health. Health is thus product of the interaction between our biology, and the physical, socioeconomic, cultural and political environment in which we live and act i.e. It is socially determined. Thus differences in people's health status arise from biological differences and from differentials in socio-economic status. Social class, race and ethnicity, gender and a range of other social determinants may influence health seeking behavior (Ravindran ed., 2001). It is therefore important to consider the role of social, cultural, economic factors that impact on utilization of ANC services. A women's decision to seek ANC services could be affected by the influence of her partner or other family members, her education, her level of decision making power in the household, her access to income (Lule, Ramana & Rosen, 2005).

Antenatal Care (ANC) can be defined as the care provided by skilled health-care professionals (Nurses, Doctors, midwives) throughout her pregnancy period. ANC reduces maternal morbidity and mortality both through detection and treatment of

pregnancy related complications (WHO, 2009). Thus care during pregnancy i.e. antenatal care (ANC) is important for the survival and well-being of both mother and her child. According to WHO (2016) recommendation at least 4 ANC visits is required for normal pregnancies. The main purpose of the four visits is to identify the complication if any and treating them in addition to addressing behavioral factors. It is recommended that ANC be received as early as possible and that it be continued throughout the pregnancy. For high risk pregnancies at least eight ANC visit are recommended first ANC contact should take place in the first trimester, two contacts in the second trimester and five contacts in (WHO, 2016). Scholars one of them is Behavioral model of health trimester services use, which is mentioned below.

#### 2.2 Theoretical Review

There has been considerable research, particularly in developing countries, exploring the economic and socio-cultural barriers that deter women from seeking maternal health care services. Andersen (1995) has developed a behavioral model that portrays the multiple influences on health care services use and, subsequently, on health status (Figure 1). There are two important key elements described in this model, which can effect health care behavior and finally influence the health outcomes, namely environment and population characteristics. Health care system and external environment are grouped as environment factors. To understand the role of social factors on health seeking practices, various study Models or frameworks shave been proposed and formulated by scholars one of them is Behavioral model of health services use, which is mentioned below.

Anderson's behavioural framework is used in this study to explained analyzed the determinant of ANC utilisation. As shown described in Figure 1, the behavioral model developed by Anderson's classified independent factors into three categories namely predisposing and enabling and need factors that determine the dependent variables. In this study according to this model ANC visit was dependent variables and the predisposing variables were divided into socio demographic factor (Maternal age, Mother's education, Spouse education, Occupation, Children ever born) and then media habit factors included (reading newspaper, Listening to radio, Watching T.V, Using Social Media), enabling factors included (satisfaction towards health services,

attitude of health workers, time allocation and care given, women's autonomy, family support permission to visit health services) and need factors includes (desired pregnancy, Wantedness to have checkups with trained health care providers).

This model is an affective way to describe the linkage between social and health factors in the utilization of health services that why this model was used as a framework to understand complex social interaction on health care utilization.

**Predisposing Factors** Socio-demographic **Media Habits** -Maternal age Reading newspaper - Mother's education Listening to radio - Spouse education Watching T.V - Occupation Using Social -Media - Children ever born **Enabling Factors** Satisfaction towards Health services Attitude of health workers Independent Time allocation and care given Variable Facilities available Women's autonomy over decision Women's autonomy over money expenditure Family support **Need factors** Desired pregnancy. Wantedness to have checkup with trained

Figure 2.1: The Behavioral Model of Health Service Use

Source: Andersen 1995

Dependent Variable

health care providers

**ANC Visit** 

The brief description on predisposing, enabling, need factors are explained below:

#### 2.2.1 Predisposing Factors

Factors that present preceding the ill health and need for care, such as demographic factors, social structures and health beliefs. Demographic factors such as age and gender represent biological urges the likelihood that people will need health services. Social structure is measured by a broad array of factors that determine the status person in the community, his or her ability to cope with and command the resources to deal with these problems, and how healthy and unhealthy physical environment is likely to be (education, occupation, ethnicity, etc). Health beliefs are attitudes, values and knowledge that people have about health and health care services that might influence their subsequent perceptions of need and use of these services (Andersen1995).

#### 2.2.2 Enabling Factors

Enabling factors which provide patients with the means to make use of the services. Community and personal enabling resources must be available to use in anytime needed. For example, health personnel and facilities must be available and people must have the means and know how to get to those services and make use of them. Income, health insurance, a regular source of care, and travel and waiting times are some of the measures that can be important in this respect (Andersen 1995).

#### 2.2.3 Need Factors

It refers to health status, perceived by the individual or evaluated by the health providers. It is how people view their own general health and functional state, as well as how they experience the symptoms of illness, pain and worries about their health and whether or not they judge their problems to be of sufficient importance and magnitude to seek professional health care. Personal health services such as diet, exercise and self-care interacts with the use of formal health care services to influence health outcomes. The measures of health services' use in this model include those representing type, site, purpose and coordinated services received in an episode of illness. This model also consists of health status outcomes in order to extend the measures of access to include dimensions which are particularly

important for health policy and health reform. It also depicts feedback loops showing that outcome, in turn, affects subsequent predisposing factors and perceived need for services as well as health behavior (Andersen 1995).

Theoretical review of social factors as explain by health behaviour model (Anderson's 1995)

# 2.3 Social Factors on ANC Utilization Explained by Anderson's Model

#### 2.3.1 Women's Education

Amongst the maternal characteristics, education of women has been found to have the strongest association with the use of maternal health care services. In Peru for example, formal education of women influences the use of maternal health care services. Results from both the cross-sectional and fixed-effects model, controlling for service availability and the socioeconomic status of the household, confirmed the importance of maternal education on the utilization of both prenatal care and delivery assistance (Elo, 1992). Similarly, in Thailand, one analysis showed that maternal education exerts a significant influence on the use of maternal health care services; the odds of using prenatal care and formal delivery assistance is much greater for women with primary schooling, compared to women with zero years of schooling (Raghupathy, 1996).

Educated mothers are considered to have a greater awareness of the existence of maternal health care services and benefited in using such services. Educated mothers are likely to have better knowledge and information on modern medical treatment and have greater capacity to recognize specific illnesses. As education empowers women, they have greater confidence and capability to make decision to use modern health care services for themselves and for the children (Caldwell 1979, Schultz, 1984). Education also enables women to take personal responsibility for their own health and the health of their children. Finally, schooling reflects a higher standard of living and access to financial and other resources, because better educated women are more likely to marry wealthier men or their have increased earnings themselves (Schultz, 1984).

There is also evidence indicating that education alone may not be sufficient to improve health-care-seeking behavior. For example, Kyomuhendo 2003 found despite a favorable and enabling policy environment, universal primary education and decentralization of health services, there has not been an increase in the utilization of emergency obstetric care by women because women's care-seeking behavior was not the result of individual preferences or choices but it was conditioned by community poverty, norms and tradition.

#### 2.3.2 Husband's Education

Husband's education also reflects tastes and preferences for health-care utilization. The husband's attitudes towards modern care could, for example, influence the wife's decision of whether or not to seek modern health-care services. Caldwell has suggested that men with higher educational attainment may play a more important role in child- care decisions than men with less schooling (Caldwell 1990). A study in India reported that matriculate education has the largest and statistically significant impact on the probability of health care use. It increases the probability of pre and post-natal care use by 10 percent and 8 percent respectively and the probability of the use of trained help at the time of delivery by 7 percent (Shariff, 2002).

#### 2.3.3 Women's Exposure to Mass Media

Existing research on health outcomes in developing countries has shown the important role of the media in disseminating information on health related issues. Three sources of information are usually used: radio, television and newspapers and magazines. Women's exposure to information through the radio, television and newspaper significantly increases the utilization rates for all services in India (Shariff, 2002). There is a 5 percent increase in the probability of the use of natal care for a woman who frequently listens to the radio compared to a woman who does not. Moreover, a study by (Obermeyer, 1993) in Morocco and Tunisia indicated that watching television weekly is associated with an increase in the likelihood of both prenatal care and hospital delivery.

#### 2.3.4 Women's Autonomy in the family

Autonomy has been defined as the capacity to manipulate one's personal environment through control over resources and information in order to make decisions about one's own concerns or about close family members. Women's autonomy thus can be conceptualized as their ability to determine events in their lives, even though men and other women may be opposed to their wishes (Bloom et.al, 2001). The influence of women's autonomy on the use of health care appears to be as important as other known Determinants such as education. Dimensions of autonomy such as freedom of movement, decision making power and control over finance can exert a strong influence over service use and service choice in South Asian setting (Bloom et. al 1998 cited in Kausar et. al 1999). In a North Indian City, women's autonomy, as measured by the extent of a women's freedom of movement, appears to be a major determinant of maternal health care utilization among the poor to middle income women (Bloom et.al, 2001).

#### 2.3.5 Women's Employment Status

Dependence on men for economic survival has been a principal barrier to women's control over their reproductive behavior in developing countries. Empowering women with more economic participation and control in their households and communities might be the key to their achieving control over their own reproductive health. Employment can increase women's economic autonomy and reproductive health status because it raises awareness and provides new ideas, behavior and opportunities through interaction with other people outside the home and community (Sharma et.al 2007) One study in Kenya (Magadi et. al., 2000) reported that the antenatal care visits tend to start earlier for women in paid employment. They are likely to have greater knowledge about pregnancy and childbirth due to freedom of movement outside household. They also tend to seek information on services available for pregnancy care during work. However, employment may not necessarily be associated with greater use of maternal health care, like in Nepal (Sharma et. al., 2007), because non- workingwomen may be better off than working women. In the context of developing countries, women's work is largely poverty induced and is likely to have a negative impact on utilization of maternal health services.

#### 2.3.6 Maternal Age

Since older and younger women have different experience and influence, their behavior on seeking health care are also vary. Commonly, younger women are more likely to utilize modern health care facilities than older women, as they are likely to have greater exposure and knowledge to modern healthcare, also more access to education. Older women, on the other hand, have accumulated knowledge on maternal health care and therefore likely to have more confidence about pregnancy and childbirth or they may be less comfortable with modern medicine and more reluctant to take advantage of available services; consequently, they may give less importance to obtain institutional care (Raghupathy, 1996). In contrast, experience and skills acquired by older women should have a positive influence on the use of health services. One study in Nepal (Sharma et.al 2007) gave result that women over the age35 are less likely to utilize prenatal care but more likely to utilize delivery and postnatal care. However, a study in Bangladesh indicated that type of assistance utilized at delivery does not differ significantly with the age of the mother (Paul & Rumsey, 2002). In Philippines, older women tend to have fewer traditional visits both in urban and rural areas and to increase their private visits in urban areas (Wong et al., 1987).

#### 2.3.7 Birth Order

With respect to birth order, several studies show a strong negative association between birth order and the use of health care services. One study in Turkey (Celik & Hotchkiss 2000) showed that women who delivered their first child were found to be significantly more likely to use prenatal care and trained assistance during the birth delivery than women in the higher order. Another study in urban areas Philippines appeared that the probability of choosing as most frequent either public or private modern care instead of traditional care decreases as the number of children aged zero to six years old increases(Wong et al., 1987). There are perhaps, three possible explanations for this. Firstly, women with first child pregnancy were more cautious about their pregnancies and therefore sought out trained professional. Secondly, as the number of children has borne increases, women may tend to believe that modern health care is not as necessary and tend to rely more on her past experiences and knowledge from the accumulated previous. Thirdly, a higher birth

order suggests a greater family size and hence lower resources (both time and money) available to seek formal healthcare.

#### 2.4 Review of Previous Studies

This study found that half of the Nepalese women who had given birth during the five year study period 2007 to 2011, had four or more ANC visits compared with only 29% during the previous survey (Ministry of Health and Population Nepal, New ERA, 2004). However, fewer than a quarter of these women (24%) received good quality ANC. We found that receipt of four or more ANC visits and the quality of ANC were associated with a number of factors ranging from socio-economic to demographic factors and women's empowerment. Four or more ANC visits Women with higher levels of educational attainment were more likely to have four or more ANC visits.

A study in Nepal on women's empowerment and maternal health utilization, analyzing the 2001 DHS, also found that women's education was strongly associated with greater use of maternal health care. Female education improves wealth, reduces gender disparity and empowers women. Previous studies in South Asia suggest that education fosters new values and attitudes that are favorable to the use of modern health care, increase the chances of women desiring skilled care and empowers them to access such care (Furuta & Salway, 2006) therefore, policies aimed at improving female education are likely to also improve ANC use. This is particularly important in Nepal, where only a very small proportion of Nepalese girls (6%) complete secondary school (WHO, 2014), only 18% of Nepalese women have a secondary education and the adult female literacy rate is 47% (Chaudhary, 2005). Educational levels of the husbands also showed a similar effect on the receipt of four or more ANC visits. This is similar to the results of a systematic review undertaken in low-income countries. A randomized controlled trial on ANC in urban Nepal found that educating women and their husbands together resulted in women retaining more maternal health knowledge than if they attended alone, concluding that educational strategies become more effective when men are incorporated. Women from higher income households had better odds of attending four or more ANC visits. This is similar to another study analyzing data from 2006 Nepal DHS

which found that women from higher wealth index household used ANC earlier during pregnancy and more frequently than those from lower wealth index households.

Women whose husbands were involved in agriculture had lower odds of four or more ANC visits than those whose husbands were involved in other occupations. In a study in rural Nepal, women whose husbands were involved in farming were less likely to have ANC than those who had any other jobs, linking farming with poverty and lack of disposable income (Dhakal, et al. 2011).

The finding from this study that porous women have decreased odds of attending four or more ANC visits is consistent with findings from similar studies The second or later pregnancy carries lower risks for complications if the first pregnancy and birth were uncomplicated. The experience of a previous pregnancy without complications might influence the perception of women about the need to seek care during pregnancy. Some women might be occupied with the responsibilities of other children and hence find it difficult to attend ANC (Simkhada, et al, 2008).

#### 2.4.1 Education and ANC Services

The use of antenatal care services gradually increases with an increase in mother's level of education. Women with higher education were twice more likely to receive antenatal care than women with no education. This means that education is a determining factor in the utilization of ANC services which is in contrast with the findings of Simkhada et al. As compared to those with higher education, women with lower education were more likely to attend irregular ANC services. Previous studies also have reported low maternal education as a predictor of ANC services.

#### 2.4.2 Occupation and ANC Services

There was a significant difference in the utilization of antenatal care services between the women engaged in service and the women in agriculture. Nearly 81% women involved in service received antenatal care, compared with only 34.7% of women in agriculture. Women in waged labor and in service were more likely to attend regular ANC services than any other occupation which contrasts with the

study result provided by Gubhaju and Gill et al, to the study by Islam et al. and Gebreselassie, in this study also significant association was observed when looking at the percentage of women receiving ANC service according to husband's occupation. Women in families with high income were three times more likely to receive ANC services than the women in the families with low income. Similar findings have been reported in previous studies (Gubhaju & Gill et al.) that women from less income are less ANC attendants than those of more income.

#### 2.4.3 Parity and ANC Services

The relationship between age at first pregnancy and the utilization of ANC services was also found to be statistically significant. As the age at first pregnancy increases, the chances of receiving ANC services also increase. The proportion of women receiving ANC services among women with low age at first pregnancy was 16.7%. That figure increased to 85.7% when the age at first pregnancy increased to 31 years and above. Antenatal care is particularly related to birth order. Similarly, in this study also women with lower parity are more likely to receive ANC services in contrast to women with higher parity which is similar with the findings of various studies that parity had a statistically significant effect on adequate attendance. This study results contradicts the findings by Onasoga et al.

#### 2.4.4 Exposure to Media and ANC Services

The relation between mass media exposure to the utilization of ANC services was found to be statistically significant. As the exposure to mass media increases the chances of attending ANC services also increases. Nearly two-third of women who are exposed to mass media used ANC services more often than did women with no exposure.

The women who were exposed to television about messages on prenatal care were 3.35 times more likely to use antenatal care than women who were not exposed to the message on television. The women who heard messages on radio about prenatal care were 2.38 times more likely to use antenatal care than women not exposed to radio, while women exposed to newspaper who read messages about prenatal care were 4.37 times more likely to use antenatal care than women not read messages

about prenatal care in the newspaper. Overall, the analysis of logistic regression reveals women's education, religion, quality of care, exposure to radio, and parity of women were emerged as independent and most significant factors influencing the use of ANC (Kulkarni & Nimbalkar, 2008).

#### 2.5 Conceptual Framework of Study

Figure 2.2: Conceptual Framework

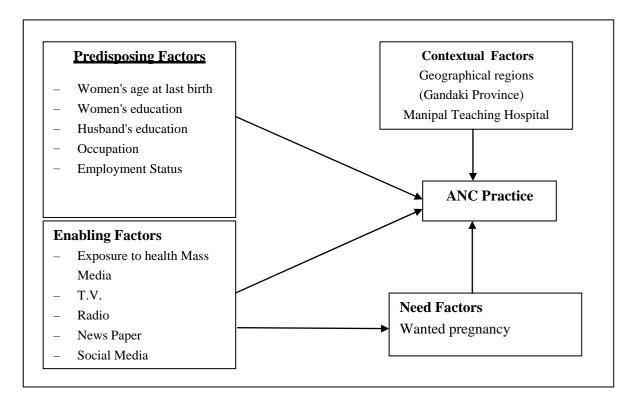


Fig 2.2 present conceptual framework of study showing the relationship of independent and dependent variables effecting ANC practices. Independent variables are listed under predisposing factors that are mostly socio-demographic and economic in nature like education, occupation, employment status, no. of children etc. effecting dependent variable (ANC use) some independent variables are listed under enabling factors that includes factors like exposure to mass and social media (Newspaper, radio, T.V. internet) influencing ANC practices. .Similarly geographical locations are listed under contextual factors which is linked with dependent variables. Need factor literally means reasons behind being pregnant and utilizing hospital for safe delivery which may include, wanted pregnancy, desire to have one more child, likely to health child after previous miscarriage.

### **CHAPTER III**

### RESEARCH METHODOLOGY

This chapter comprises of research design, nature and sources of data, data collection procedure, data processing and data Analysis.

# 3.1 Justification of Study Area

This study was conducted at Manipal Teaching Hospital, Pokhara, Nepal. It is one of the Tertiary level and also referral hospitals of Nepal situated in Gandaki province. This province has 11 districts namely Kaski, Lamjung, Manang, Mustang Myagdi, Nawalpur, Parbat, Syanja and Tanhun. Manipal Teaching Hospital serves both as treatment and referral hospital for people of these districts and almost every parts of Nepal. There are mainly two reasons for selecting Manipal hospital as a study area. Firstly due to restrictions led by government of Nepal to have minimum exposure with the people due to corona outbreak, prevented mobility in field to find adequate number of sample size. Hence it was almost impossible to collect data in the community that's why the study area was purposively chosen as Manipal Teaching Hospital. The second reason of choosing Manipal Hospital was due to the fact of being one of the tertiary hospitals of Nepal, having maximum patient flow in the region. That added advantage of getting adequate study population even at the time of corona outbreak.

# 3.2 Research Design

It was a descriptive study. The study aims was to assess the effect of demographic variables and ANC practices by mothers particularly focusing on their educational status. Hence data were collected to describe women's demographic factors and their ANC visit practices at certain cross-sectional point of time.

#### 3.3 Sources and Nature of Data

Mainly Primary data were collected by interviewing mothers having delivered a child in the hospital during data collection period. Mainly quantitative data were collected through interview guidelines.

# 3.4 Universe, Population and Sample

Universe was total childbearing women admitted at Manipal Teaching Hospital. Sampling Technique: Purposive sampling was used as the sampling universe was unknown. During the time of corona outbreak it was difficult to predict the number of eligible women in advance who could come for delivery. During that time, the numbers of cases for delivery were around 12-15 per day.

# 3.5 Sample size

Having restrictions imposed to have less exposure with the people due to Corona epidemic. Data collection period was limited to one month duration from 1<sup>st</sup> February 2021 to 25 Feb, 2021. During this period total 340 mothers were interviewed. Hence sample size became 340.

# 3.6 Data Collection Tools and Techniques

Structured questionnaires were used as data collection tool. Face to face Interviews were conducted to collect ANC related data with eligible mothers of reproductive age groups. For validity and reliability, a sample of questionnaire was pretested.

# 3.7 Data Processing and Analysis

Data were collected during day time in the hospital ward using pretested questionnaire by face to face interviews with mothers who had delivered a baby at Manipal Teaching Hospital. Data were entered and analyzed in SPSS version 20. Data were presented into frequency distribution table as percentages in tabular or figure form. Chi-square test was done to find the association and logistic regression analysis were performed to study the effect of dependent and independent variables controlling confounding. The result were interpreted in terms of p value, confidence interval, and ODD ratio.

### **CHAPTER IV**

#### DEMOGRAPHIC AND SOCIO-ECONOMIC

#### CHARACTERISTIC OF STUDY POPULATION

This chapter presents background characteristics of women aged 15-49 who had delivered babies at Manipal Teaching Hospital. The chapter begins with a brief description of study population characteristics. That is followed by presentation of description of demographic, social and economic characteristics of women. The chapter also includes media habits of the respondents in terms of listening to radio, watching TV and reading newspaper and magazines. Evidence indicates influence of mass media like newspaper, television and radio have strong impact on changing person's knowledge and behavior. In addition rapid growth in IT sectors has provided easy access to high speed internet, Wi-Fi, and mobile phones.

The wide scale use of social media like Facebook, YouTube, and google has emerged as an effective means to acquire knowledge. Women's Knowledge is also highly influenced by social media. Hence this chapter includes social media using habits of the respondents Antenatal practices of mothers is summarized in terms of total number of antenatal visits she performed during her last pregnancy. This chapter also presented association of mothers" educational status and different types of media seeking habits with number of ANC visits.

# 4.1 Demographic Characteristics of the Respondents

#### **4.1.1** Age Distribution of Mothers

Results from various studies have found mixed evidence of an association between age and utilization of ANC services. In some studies, young age of women has been identified as a predisposing determinant for utilization of ANC services (Nketiah- Amponsah E, 2013). However, few studies suggest contrary to these studies, that increased age is associated with more utilization of ANC services (Efendi, 2016) Younger women (≤25 years) are more likely to receive antenatal care than older women. The relationship between age and the utilization of ANC services was found to be statistically significant. Women in lower age group were

more likely to have ANC services for more than four times than the women in higher age group .As in a study by (Swenson IE. et al. 1993) women who were under the age of 30 were more likely to receive ANC services than were those over 30 yea of age.

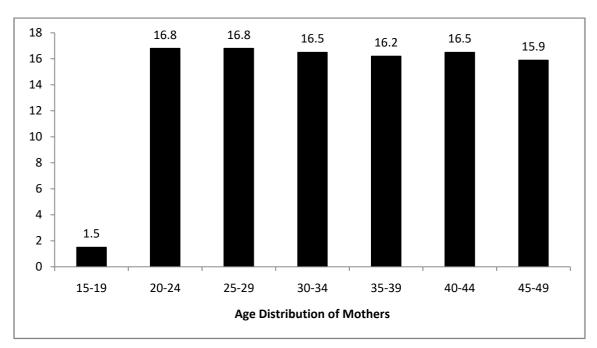


Figure 4.1: Age Distribution of Mothers

Source: Field Survey, 2021

In figure 4.1, age distribution of the women shows that 1.5% percent of the respondents were in 15-19 age groups. Almost equal percentage of women were distributed from 20-24 (16.8%), 25-29(16.8%) and so on till 45-49 age group with class interval of each age-group had 5 years of gap (Table 4.1).

### **4.1.2** Age of Mothers at First Child Birth (Parity)

Child bearing in Nepal starts at very early age. Childbearing age determines the risk and need of ANC visit. Studies have suggested that parity influences initiation of ANC, as parity increases, the experience of timely initiation of ANC decreases (Tran, 2012). High parity women might tend to rely on their experiences from previous pregnancies and not feel the need for antenatal care (Zhao, 2012). Women's with higher age may have greater level of experience, these women might feel more confident during pregnancy and consider antenatal care to be less

important this was evidenced by findings in different studies in which respondents with first pregnancy were about two times more likely to book early than those with more children (Gross, 2012)

60 51.2% 50 39.4% 40 Percentage 30 20 10 6.2% 2.1% 1.2% 0 10-14 15-19 20-24 25-29 30+ Age of Mothers at First Child Birth

Figure 4.2: Age of mothers at first child birth

Source: Field Survey, 2021

Over half of the respondents (51 percent) reported their ages between 10-14 years when they delivered their first child. Similarly, nearly 39 percent respondent had their first child when they were in 15-19 year age group. In this way, about 90 percent of women had their first child in their young ages.

#### **4.1.3** Employment status of respondents

This variables were assessed to know that at present time how many women were earning and how many were not. Because income will enable them to take their decision independently. Hence this question was a part to assess women autonomy in finance decision making. Women in families with high income were three times more likely to receive ANC services than the women in the families with low income. Similar findings have been reported in previous studies (Gubhaju & Gill et al.) that women from less income are less ANC attendants than those of more income.

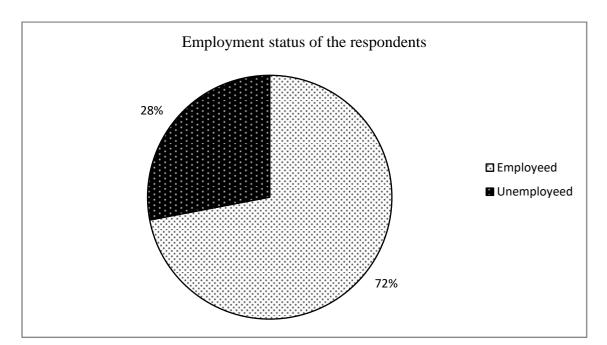


Figure 4.3 Employment status of the respondents

Source: Field Survey, 2021

Figure 4.3 shows the employment status of the respondent. In this study around 72 percent of respondent were involved sometime of income generating activities while rest of the respondent were just house wives. Income enhance women autonomy over financial decision making towards her health benefits.

#### 4.2 Children ever born to Mothers

This study shows 70% of mothers had either 1 or 2 children ever born, hence giving total fertility rate of around two (Table 4.1).

**Table 4.1: Children ever born to Mothers (TFR)** 

Children	Frequency	Percentage
1	35	35
2	25	25
3	20	20
4	10	10
5	10	10
Total	100	100.00

Source: Field Survey, 2021

The above table shows that majority of women (35%) had their first child at the younger age 15-19 followed by 20-24 (25%) rest above 25+ years women had their first child had to or more child during their younger age period.

#### **CHAPTER V**

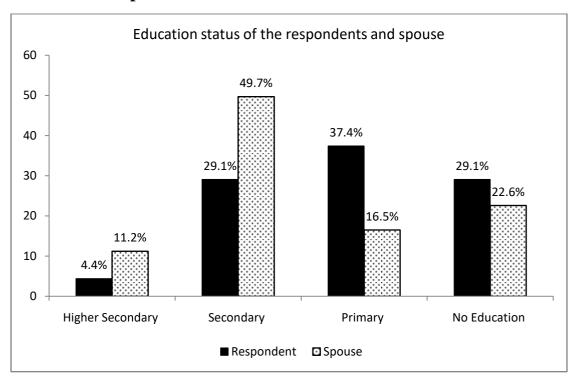
# ASSOCIATION OF EDUCATIONAL AND MEDIA HABITS WITH ANC UTILIZATION

This chapter describes the association between ANC visit on educational status of respondents and her spouse, mass media seeking habit of respondents (news paper, radio, television) with ANC visit, and social media (youtube and facebook) of respondents with ANC utilization. The association was analyzed by using chi squire test and expressed interms of percentage and P value.

# **5.1** ANC utilization with Education status of the respondents and spouse

Husband's education also reflects tastes and preferences for health-care utilization. the husband's attitudes towards modern care could, for example, influence the wife's decision of whether or not to seek modern health-care services. Caldwell has suggested that men with higher educational attainment may play a more important role in child-care decisions than men with less schooling (Caldwell, 1990). Women's health seeking behavior is highly influenced by their educational status. There is positive relationship between mother's education and utilization of MCH services. It further shows that preventive health care services are used to a greater extent by mothers with higher education than there less educated counterparts (Govindasamy & Ramesh, 1997). More educated women are more likely to receive prenatal care, to have been immunized with tetanus toxoid during pregnancy, and to have their deliveries attended by trained personnel (Hobcarft, 1993).

Figure 5.1: ANC utilization with Education status of the respondents and spouse



#### p < 0.05 at 95% CI

Source: Field Survey, 2021

Figure 5.1 compare the educational status of respondents and her spouse both. It reveals that respondent's spouse had comparatively more percentage of higher secondary (11.2%) and secondary education (49.7%) than his wife while wives had comparatively high percentage of primary level of (37.4%) education than their spouses.

## 5.2 Media seeking habits of Respondents

This study had taken under consider, Four types of media seeking habits and effect in women education, viz i) Newspaper reading habits ii) Radio listening habits iii) television watching habits and last but most powerful tools termed as iv) Social – Media, For last few decades, people had choices from three mass-media to receive information on various aspects including health services as well. It well know that Gorkhapatra was the one of oldest newspaper, used since Rana regime until today before the introduction of radio and television in Nepal. Around 4 decades ago Radio Nepal was started in the view to disseminate news and message that could be

reached and listened to almost every part of Nepal. Ii had been an effective first mass media that could reach to every individual houses and still it is used as an efficient, cost effective and feasible method to get information even to most inaccessible and hilly region and in places of Nepal, and where there is no electricity and power cut. Similarly Television has also been used in Nepal since decades which is one of the effective form of audio-visual aid to convey knowledge to people. It can be affordable by almost every Nepalese.

Mass media are critical tools in promoting health through two key strategies: their widespread penetration promotes broad reach to key audiences across boundaries, exposure to specific messages in the media is known to shape public knowledge, attitudes, beliefs and behaviours. Routine use of media can influence both prohealthy and antihealthy behaviours. These PSAs have prompted pregnant women and their family members to seek ANC during pregnancy, informed them about the benefits of these visits and highlighted that these visits will be free inadequate ANC and inadequate breastfeeding. Mass media campaigns have been used to spread awareness and educate populations about each of these causes and have resulted in mixed evidence for success. Television and radio are the most popular media for creating awareness among large audiences. However, print media, such as magazines and newspapers, and outdoor media, such as billboards and posters, have also proven effective. In India, 65.2% of households own a television and 8.1% of households own a radio. Moreover, 66% of women in rural India and 92% women in urban India have regular exposure to some kind of mass media. Broadcasting important messages related to ANC through mass media may help in increasing awareness at the population level.

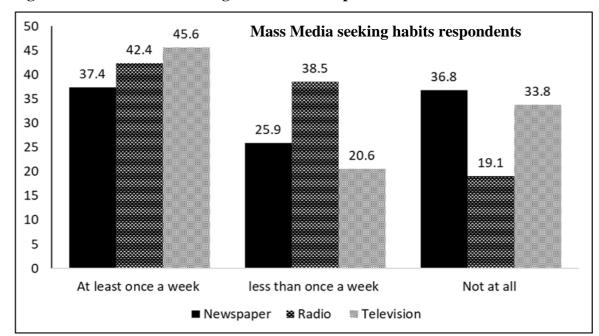


Figure 5.2: Mass Media seeking habits of the respondents

p < 0.05 at 95% CI

Source: Field Survey, 2021

Figure 5.2 shows that majority of respondents (37%) do not read newspaper at all. This is more likely scenario since only 29 percent women were recorded as literate. So, most respondents could not be expected to read newspapers even if they have access to this media channel. Similarly, (26%) read newspapers less than once in a week. And 37% respondents read newspapers at least once in a week. further shows that more respondents use radio more frequently than newspaper, Radio listening habits of the mothers. Around 42% percent and another 39% respectively listen to radio at least once a week and less than once a week. Television is used by 46% of respondents at least once a week or more Social Media seeking habits (Facebook, YouTube, and google) by the respondents.

## **5.3** Social Media Using practices of Respondents

Nowadays knowledge is easily shared with the utilization of social media. Social media can be described as a group of Internet-based applications that based on the ideological and innovative foundations of Web 2.0. Web 2.0 is the extension of Web 1.0 where it emphasizes on its main feature of allowing the formulation and exchange of user-generated content. This new generation of web consists of variety

of services such as wikis, weblogs, social networking sites (e.g. Facebook and Twitter) and hosting services (e.g. Flickr and Youtube) The utilization of social media such as wikis and social networking sites has expanded exponentially, where this advancement are ceaselessly turning out to be more coordinated into our daily lives. In addition, there are many researches done previously to study the influence of social media towards knowledge sharing in specific organizations. For example, research by emphasized on the creation of a specific network that could enhance the way information is shared via online Knowledge Management Systems (KMS) in healthcare industry. Besides that, research done

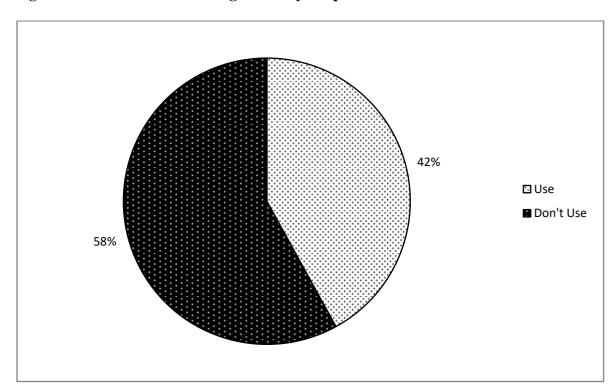


Figure 5.3: Social Media seeking habits by Respondents

p < 0.05 at 95% CI

Source: Field Survey, 2021

Figure 5.3 shows that the 42% of respondent use social- Media that accounts 143 women of total 340 respondents.

#### **CHAPTER VI**

# ANC SEEKING PRACTICES AND STRENGTHEN OF ASSOCIATION WITH SOCIAL FACTORS

Firstly, this chapter present number of ANC visits performed by the respondents they during their last pregnancy. As per WHO recommendation, they were divided into two categories, one who had performed at least 4 or more ANC Visits and other less than or No ANC visit at all. Secondly, to find the association between ANC visits with demographic factors particularly, educational status, mass media seeking habits to see the effect of these variable on ANC visits. Chi-Square test and logistic regression analysis was performed and expressed the outcomes in terms of P value and ODDs ratio.

## 6.1 Number of ANC visits performed by mothers during her last Pregnancy

WHO has recommended for at least 4 or more ANC visits should be performed by women, for normal pregnancy to avoid any complications and to address any health problem to fetus and mothers timely.

percentage of ANC visits by respondents

53

52.1

Figure 6.1: Number of ANC visits performed during her last pregnancy

Source: Field Survey, 2021

less than 4 or No ANC

46 45

4 or more visit

In normal pregnancy, WHO recommends that every woman must take ANC services at least 4 times immediately after conception to the time of delivery .In this study, total 177 women i.e (52.1%) had utilized 4 or more ANC in their last pregnancy. The rest 47 percent (163) either took ANC services less than 4 times or did not take at all. (Figure 5.1)

#### 6.2 Association of Mass media seeking habit with ANC visits

#### 6.2.1 Newspaper reading habit and number of ANC visits

Women's exposure to mass media (e.g., watching TV, listening to the radio, and reading newspapers) can promote their utilization of maternal healthcare services. Mass media includes written, broadcast, or spoken communication that reaches public audiences and serves as an important mechanism for integration into a society (Katz et al., 1973; Viswanath et al., 2007). Media can disseminate information to large audiences in the form of public service announcements, entertainment, advertisement, or short drama quickly and at relatively low costs (Sarrassat et al., 2015).

In table 5.1 Among the total women having utilized at least 4 ANC visits about 4 in 10 women who do not read newspaper at all had utilized ANC services 4 or more times. The percentage of women using ANC 4 or more times was high among those who read newspaper at least once a week or less than once a week. (Newspaper)

# 6.2.2 Association of education and media seeking habits of mothers on utilization of four or more ANC visits

Table 6.1 : Effects of education and media seeking habits of others on utilization of four or more ANC visits

Description	Odds ratio (OR)	95%	P value
		Confidence	
		interval (CI)	
	Respondents, Ed	` ,	
Higher	34.0	15.4-74.8	0.000
Secondary	11.2	3.3-37.4	0.000
Primary	6.2	3.212	0.000
No education	Ref.		-
<b>Husbands, Education</b>			
Higher	13.2	5.1-34.1	0.000
Secondary	5.7	3.1-10.7	0.000
Primary	2.8	1.3 -6	0.000
No education	Ref.		
Media Habits			
Newspaper			
At least once a week	8	7.1-14	0.000
Less than once a week	3.1	3-3.9	0.000
Not at all	Ref.		
Radio			
At least once a week	2.6	1.3-4.9	0.000
Less than once a week	0.3	0.1-0.6	0.000
Not at all	Ref.		
Television			
At least once a week	6.4	3.3-12.5	0.000
Less than once a week	4.1	2.4-7	0.000
Not at all	Ref.		
social media habits			
Yes	40.5	20.1- 11.7	0.000
No	Ref.		

Source: Field Survey, 2021

The logistic regression analysis shows strong effect of selected social variable on the use of at least 4 ANC visits

#### 6.2.3 Women's education and ANC visit

the analysis result shows highly significant effect of women's education on ANC use. Women with higher level of education are 34 times more likely (95% C.I) to utilize at least 4 ANC than women with no education. The analysis result shows significant effect of education and ANC at secondary (OR 11.2; 95% CI) and primary (OR 6.2; 95% CI). Husband higher education has also positive influence on the use of ANC (Table 5.6).

#### 6.2.4 Newspaper habit and ANC utilization

Media habits has positive influence on ANC use .Women who read newspaper at least once a week are 8 times more likely to utilized ANC 4 services than those who have less access or no access to newspapers.

#### 6.2.5 Radio /TV habits and ANC utilization

The likelihood of taking ANC 4 services 2 times more and 6 times more respectively for women who listen to radio at least once a week (OR 2.6; 95% CI) and the women who watch TV at least once a week (OR 6.4; 95% CI).

#### 6.3 Social Media and ANC utilization

The strongest positive influence on ANC use was due to social media using habits. Above table shows that ANC 4 or more visit utilization is 40.5 times more among women who have no access to internet and social media. The result is significant at p<0.001.

In order to ensure better health of pregnant women and delivery of a healthy baby as well, it is necessary to have at least four antenatal care visits (ANC) for uncomplicated pregnancies and more are necessary only in cases of complications shown by empirical evidence (Villar et al. 2001). According to a worldwide survey study, maternal education is found to play a vital role on maternal mortality. Moreover, maternal mortality rate tends to be higher in countries where female literacy rate is lower than their male counterparts (McAlister and Baskett 2006). This is because mother's health care seeking behavior is highly influenced

by her education and mothers with higher education use health care services to a greater extent than the mothers with lower education. Education makes women aware of the effects of poor health and makes them understand the demand and utilization of health care (Rahman et al. 2008). Mass media particularly internet use had positive impact on the utilization of ANC as frequency of antenatal visits.

#### **CHAPTER VII**

#### SUMMARY AND CONCLUSION

#### 7.1 Summary

Over half of the respondents (51.2 percent) were between 10-14 years at the first birth. Nearly 40 percent had their first child in 15-19 year age group. Majority of the respondents were having primary (37%) and secondary (29%) education. On media habits, majority of respondents (37%) do not read newspaper at all. About 80 percent respondents respectively listen to radio and 19 % do not use radio. About (46%) of respondents watch TV at least once in a week. And 33% did not watch TV at all. About 28 percent respondents were not working. Of the working respondents over one-half (72.4%) were currently employed. Slightly over one-half (52%) of the respondents had utilized at least 4 ANC in their last pregnancy and the rest of (48%) percent either took ANC services less than 4 times or did not take at all.

#### 7.2 Conclusion

In this study mothers' education and ANC visit was statistically significant. Mass media played a central role in informing and educating people about their health need and available health care facilities. There is lack of literature on the impact of social media on the utilization of ANC in Nepal. In the current study setting, where 80 % of women attend four ANC, and 70 % are literate, mass media such as radio and television may be effective means to disseminating message to increase the utilization of maternal health services (Kulkarni M, 2008). However, there is lack of evidence to support this argument. Increasing evidence on such factors would enable policy makers to design evidence based communication program to improve the uptake of ANC and other maternal health services. Further intensive research is needed aimed to examine the impact of mass media exposure to the ANC service utilization.

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#### **APPENDIX**

### **Survey Questionnaire**

Mother's Education and Antenatal care practices: A case study form Manipal Teaching Hospital, Pokhara, Nepal

Namaste! I am Meraj Ahmad , For my Academic requirement I am conducting a research entitled — Mother's Education and Antenatal care practices : A case study form Manipal Teaching Hospital ,Pechora, Nepal. For this I am collecting data with mothers about their ANC experiences I will ask you few questions on antenatal care practices. The data given by you will be confidential, so you are free to participate or reject to answer. Without your consent, I will not proceed forward. Would you be willing to participate in this survey?

1.	Yes.	2.No

If yes, proceed, if no leave that house and go to next house

#### **Section A**

#### Socio- demographic characteristics of the respondent

1	Respondent's Name				
2.	Respondent's Age (In completed years)				
3.	Age at marriage(in years)				
4	No. of children Son Daughter				
5.	Mothers age at the time of first child birth (years)				
6.	Total no of children ever born (both live + dead) in lifetime				
7.	Employment status of mothers 1) employed 2) unemployed				
8.	Types of occupation involved in				
1)	Agriculture 2	2) Service/trade	3) Manual	4) not working	
9.	Education status of Respondent				
	a) Higher	2) Secondary	3) Primary	4) No education	
			15		

10.	Mass	Media	seeking	Habits
10.	wass	Micuia	SCCKING	Hauns

SN	Types of Mass	At least once a weak	Less than once	Not at all
	Media used		a weak	
1	Newspaper			
2	Radio			
3	Television			

10	Casial	Madia	coalzina	habita
10	Social	Media	seeking	naons.

- 1) Yes
- 2) No

ANC seeking practices during her last pregnancy:

- 11. No of ANC visit performed during her last pregnancy
  - 1) Less than 4 visit 2) 4 or more visits