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# UNDERSTANDING THE UTILITY OF IEC MATERIALS IN MATERNAL HEALTH COMMUNICATION: A LONGITUDINAL STUDY OF BAGESHWAR DISTRICT IN UTTARAKHAND

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**Abstract –**
The goal of the paper is to look into health communication in relation to maternal health. In health communication, health promotion and health education are frequently used interchangeably. When it comes to providing rural women with information on maternal health, health communicators are crucial. In addition, non-governmental health programs and state governments have a significant influence on the creation, planning, and dissemination of health education resources. Information, Education, and Communication (IEC) has been identified by studies as one of the most effective strategies for resolving inequities and problems related to maternal health. The intelligibility and understandability of the message are critical components of effective communication in the settings of Bageshwar district in Uttarakhand. In order to fill in the gaps in the readability, comprehension, and recognition of information, education, and communication (IEC) material, a longitudinal study was carried out in the Bageshwar district. The study discusses the functionability and organizational structure of primary health centres in context of Information, Education and Communication material.

**Keywords**: Health Communication, Health Education, Health Promotion, Maternal Health Communication, IEC Printed Material, Maternal Health Literacy

## INTRODUCTION

According to the World Bank collection of development indicators (2020), the Indian population was reported as 65.07% in rural areas. Rural population is comparatively higher than urban areas. Rural women face gender bias, disadvantages related to healthcare, malnutrition, and treatment of health issues when it comes to appropriate healthcare. Women in rural communities face higher life-threatening after childbirth than in urban cities. The majority of maternal deaths occur during labour, delivery, post-partum and obstetric hemorrhage. Maternal death is a major cause of concern as most of the deaths are preventable. Broadly, The National health portal (2015) mentioned India contributed to nearly 20 percent of all maternal deaths worldwide between 1992 and 2006. The aim was to address health disparities in healthcare at the grassroots level. The argument is that improvement in health outcomes could contribute to overall development. Mostafa (2019) in the study 'Rural Women at High Risk of Life-Threatening Complications' stated that "In rural areas where there is declining access to obstetric services, it is alarming that more and more people face maternal mortality and morbidity when giving birth" (Para-1). The study argued that geographic

disparities are also a responsible factor for putting rural women at risk in acquiring life-saving interventions. The research question arises on identifying states ahead in maternal health-associated risks due to geographical constraints?

Sahu and Kumar (2019) mentioned The Ministry of Health and Family Welfare, India established the Empowered Action Group (EAG) in 2001 to have a special focus on states which are demographically lagging in context to Maternal health. This accounts for Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Uttar Pradesh, and Uttarakhand as high Focus states contributing to 48% of the total Population by the government of India. Thus, among the six states, Uttarakhand lagged in achieving antenatal visits by Community health workers and Institutional delivery. Chinmaker and Sahoo (2011) in their study 'Factors influencing the utilization of Maternal Health Care services in Uttarakhand 'stated The National Family Health Survey (2005-2006) had a high proportion of maternal health risks in context to Uttarakhand. It argued that a large number of deliveries are conducted by traditional birth attendants (Dai). Typically, the traditional birth attendant was the primary health care provider during pregnancy in rural India. The survey conducted in 2006 mentioned 77 of the 159 women surveyed delivered at home. The report argued that preference for home delivery is due to factors including accessibility of care, community trust, and negative perceptions on government health facilities. Secondly, Dai is considered unskilled due to illiteracy and lack of formal training. Against this, to ensure safe health, the state government have launched several health schemes and educational material that educate women on maternal health. The Government started the process of re-orienting the family planning and MCH (Maternal and Child Health programmers) which paved way for the National Rural Health Mission (NRHM) 2005. Under NRHM, the ASHA project became a successful venture to improve the health of the rural people and provide a further thrust to reduce child and maternal mortality and fertility.

Secondly, Low female health literacy is a major contributing factor in the rising maternal mortality rate. Corrarino (2013) in the study Health literacy and women's health: Challenges and Opportunities highlighted health literacy as a serious problem. Health Literacy affects women's knowledge, ability to properly follow clinical plans, and health outcomes for women. The field study depicted that the literacy of females is directly linked to their ability to read and grasp information. Similar study Mojoyinola (2011) stated "Literacy levels of the pregnant women help them to understand dangers signs in pregnancy, take adequate care of themselves and adhere to advice given by midwives and nurses, which help them experience safe and healthy pregnancy". Literacy plays an essential role in understanding and implementing information written in printed material. It also helps women to adhere to guidelines and awareness imparted by community health workers. Batool (2020) in the study 'Impact of female literacy on infant mortality and maternal mortality in Kashmir Valley: a district-level analysis argued that with a 1% increase in female literacy rate there is the decrease of 1.324maternal death per100,00 females. The level of literacy is directly linked with a decrease in maternal mortality. Khorasani et al., (2015) in the study 'Measuring maternal health literacy in pregnant women referred to the healthcare centres mentioned that women's health status and her level of health knowledge during pre-pregnancy,

pregnancy, and post-natal phases directly affect progeny. The argument is that coverage of life-saving interventions and practices remain low in rural areas. The reasons include firstly gaps in knowledge, secondly policies implementation, and thirdly, availability of resources. Gaps in knowledge are directly linked to the educational qualification of women. The fieldwork stated that women in the Bageshwar district have educational qualifications till class $10^{th}$-$12^{th}$. The paper examines the literacy of females in the Bageshwar district regarding readability, comprehension and recognition of the information of the printed Information, Education and Communication (IEC) material.

## STATEMENT OF PROBLEM

Uttarakhand has been identified as a low-performing state and the underlying reasons behind maternal deaths. The National Health Family Survey (NHFS-4) Report (2015-16) under the maternal health section, Bageshwar district is one of the low-performing districts of Uttarakhand. Firstly, antenatal care visits account for 23% in district Bageshwar, whereas Dehradun has the highest performing district accounting for 47%. Secondly, Institutional Delivery: The NHFS-4 Reports showed that Bageshwar has 56% of institutional delivery and is a low-performing district, whereas Dehradun has the highest number accounting for 84% of the delivery in the healthcare facility.

Secondly, the district census Handbook (2011) stated district Bageshwar low female literacy rate as compared to Nainital, Pauri, and Dehradun districts, Bageshwar is divided into four tehsils, Bageshwar, Kapkot, Kanada, and Garur. The overall literacy of the Bageshwar district is 80.01 percent. The males are 92.33 percent literate, whereas females are 69.33% literate. In this Milieu, Bageshwar District was chosen for conducting the fieldwork and investigating maternal mortality cases in the context of literacy.

### 2.1. Demographics of Bageshwar district in Uttarakhand

The terminology Uttarakhand is derived from the Sanskrit term ‘Uttara ‘means north and Khand means land. The demographics of Uttarakhand are such that 69.77% of the population lives in rural areas. This is quite a high number in comparison to the urban areas. The gender ratio as depicted is 963 females per 1000 males. The 2011 census data revealed that the total literacy of the state is 78.82%. The literacy rate of males is 87.4% whereas, female literacy is 70 %. The total fertility rate is 2.3, while the crude birth rate is 18.6. The maternal mortality is 188, infant mortality is 43 and the crude birth rate is 6.6.

There are 13 districts in Uttarakhand. This comprises of two divisions primarily, Kumaon and Garhwal. The NHS-4 Uttarakhand Data stated Bageshwar as one of the low-performing districts in context to Institutional delivery and Female Health Literacy. To carry out the study, villages from the Bageshwar District with the highest number of females were chosen based on the district census book comprising Mandalsera, Kathayatbara, and Bilonasera.

Uttarakhand is a state that showed imbalances in literacy concerning the rural regions. The below table shows how female literacy went upwards in the decades 1951 to 1961 from 4.8% to 7.8% but 1971 showed improvement and in 2001 female literacy stood 60%. The male literacy is

significantly higher in the same period 1951 to 2001, it improved from 32% to 84%. Female literacy has shown improvement from the year 1951 to 2001, from 04.78 to 60.26%. The census of India 2011 stated female literacy as 70.01%. Despite this, female literacy shows disparities in the achievement of better health dynamics. Women's literacy plays an essential role in maintaining better standards of health. Poor Literacy rates affect women's health and lead to complications during pregnancy.

**Table 1: Progress in Literacy in Uttarakhand**

| Year | Total | Male | Female |
|---|---|---|---|
| 1951 | 18.93 | 32.15 | 04.78 |
| 1961 | 18.05 | 28.17 | 07.78 |
| 1971 | 33.26 | 46.95 | 18.61 |
| 1981 | 46.06 | 63.35 | 25.00 |
| 1991 | 57.75 | 72.79 | 41.63 |
| 2001 | 72.28 | 84.01 | 60.26 |

**Source:** Literacy Rate: Department of School Education, Government of Uttarakhand, India (uk.gov.in)

Bageshwar district comprises 947 villages. The district covers a total area of 2,241 sq. km. As per the 2011 census of India, the population of males in the Bageshwar district is slightly higher than Females. The ratio is 1,090 females per 1000 males. The total literacy rate of Bageshwar Tehsil is 82.38%. The male Literacy is 80.36%, while the female Literacy is 63.7 %.

The data highlighted that the literacy of females is lower than males, despite the population size of males being higher than females. Kateja et al., (2007) mentioned that there is a strong correlation between women's Literacy and the use of maternal health services. Literacy is directly proportional to women's decision-making abilities and capability to use the sources of information for ensuring better reproductive health. Maternal Health Literacy ensures improvement in knowledge and awareness so that complications and factors from pregnancy can be managed effectively.

**FIELD STUDY (METHOD)**

Extensive fieldwork has been carried out to understand the utilization of Information, Communication, and Education (IEC) material in the context of maternal health education. The Printed Information, Education, and Communication materials (IEC) were found in community health centres (CHC) Baijnath and National Health Mission (NHM) in Bageshwar district. The Method chosen was: 1) Visual analysis of the printed material present in CHC and NHM, Bageshwar. The chosen sample size was 50 posters. 2) In-depth Interviews were recorded and focussed group discussions with community health workers, women (beneficiaries), and block coordinators under National Health Mission were conducted to explore and understand the issue. The sample size chosen was 150 village women,20 community health workers, 2 block coordinators, and 4 gynecologists to conduct the study.

**Maternal Health Communication in Uttarakhand**

The term Health Communication was used by the international communication Association for the first time in the year 1975. In 1997, The American Public Health Association recognized Health

Communication as the broader field of discipline of Public Health Education and Health Promotion. Kumar and GS (2012a) in their study 'The study Health Promotion: An Effective tool for Global Health' mentioned that health issues can be addressed by empowering individuals and communities by adopting a holistic approach to take action for their health by strengthening health conditions. Bernhardt (2004) in his study 'communication at the core of Effective Public Health' mentioned Healthy people (2010) as "the art and technique of informing, influencing and motiving individual, institutional and public audiences about important health issues". (p., 2051)

The above study emphasized Health is an important indicator that contributes to the well-being of an individual and community at large**.** Health communication plays an effective role in dealing with health issues through the dissemination of awareness and information to the masses.

Kumar and GS (2012b) in their study 'Health Promotion: An Effective tool for Global Health 'mentioned Health education is about providing knowledge and health information to communities and individuals by increasing their knowledge and influencing their attitude to improve health. Health promotion is built on the concept of national health programmes and the implementation is based on community participation. The government has tried to address the health disparities through Information, Education, and Communication (IEC) (p.6).

In this context, the paper examines the Information, Education, and Communication material in context to Maternal health literacy in the Bageshwar district. It analyses the Information, Education, and Communication (IEC) printed material used in the Bageshwar district context to its readability, understandability, and comprehension of the messages. It explores the effectiveness of health messages in the Bageshwar district through qualitative case studies.

The Uttarakhand Family and Health Welfare Society stated that to address the maternal health issues, there is a functional Information and Communication cell under the Director-General. The implementation of IEC involves a systematic and integrated approach that includes firstly, development of action plan focussed to need to be based and area-specific, secondly, message designing by the professional media agencies, thirdly pre-testing of the material and dissemination, fourth formulation and designing of media plans and lastly evaluating the impact of IEC Materials. The IEC includes electronic media: Radio and TV commercials in context to antenatal care, promotion of breastfeeding, vasectomy, adolescent reproductive health, and different issues under NRHM. Print media includes; posters, leaflets, brochures, folders, flipbooks, calendars in context to Maternal health. Outdoor media includes – hoardings, glow signs, video vans and buses on issues related to female foeticide, interpersonal communication: population education programmes for higher secondary schools, orientation training camps for service providers and ICDS workers, workshops on RCH and NHRM.

Chapter 17$^{th}$ of the Ministry of Health and Family Welfare focuses on Information, Education, and Communication. The aim is to create awareness and disseminate knowledge regarding various schemes under the ministry and guide citizens on assessing them. The objective is to encourage health-seeking behavior in context to preventive and Promotive health. The IEC has catered to the rural masses through the use of tools of communication.

The Ministry has designed a framework for IEC activities encompassing media and interpersonal activities to disseminate health scheme information to the masses. The IEC activities have a print media component along with TV, radio, social media, and outdoor plans. The initiative involves the Ministry partnering with the Directorate of Field Publicity and Broadcasting to create awareness about RMNCH+A initiatives and schemes in High Priority Districts. It includes spreading information on promotive and preventive healthcare, feeding mothers, expectant mothers, feeding mothers, etc.

Halliday &Agnes (2020) mentioned "Information, Education, and Communication has been considered a very important means of imparting health information and positively modifying health attitude and behaviors. Printed materials such as newspapers, leaflets, handouts, and write-ups pose greater problems for illiterate audiences. Therefore, more emphasis needs to be put upon age, literacy level, location of the target audience. moreover, the paper argues on the use of video-visual material over the printed educational one.

According to World Health Organization (2001) IEC involves many processes for the achievement of behavior change. The stages are as follows receiving information, secondly changing health behavior, thirdly modifying behavior, and lastly, maintaining it.

According to the Ministry of Child and Family Welfare (1998), IEC intervention programmes tend to provide and increase awareness and disseminate information in a way that is culturally acceptable and sensitive to a group of people via media use. It gives people the opportunity to develop their knowledge, skill, persuade and motivate individuals to change their behavior.

Birhanu et al. (2011) in the study 'The study Assessment of Production and Distribution of Printed Information Education Communication (IEC) Materials in Ethiopia and Utilization in Jimma Zone, Oromia National Regional state' stated that "Health Education and Health Promotion activities rely on well-designed and effective Printed Information Education and Communication materials to ensure success." Printed materials are the heart of IEC strategies. Printed IEC materials reinforce messages and enhance learning as it carries information and instruction. It plays an important role in motivating and reminding for action. It also argued that studies are limited in context to IEC material production, distribution, and utilization of printed IEC Material. In India one study revealed that Printed IEC material received by the district health office was 72.5%, majorly pamphlets and IEC material used by health personnel accounted for 14.4% (pp.77-83).

In this context, the printed information, Education and Communication (IEC) material is available in community health centres, Baijnath, and the National Health Mission centre. The Information, Education and Communication included posters, brochures, mother and child handbook, Wall writings, under the Ministry of Health and Family Welfare was analyzed.


**Appendix 1: Posters as Information, Education and Communication Material in Community Health Centre, Baijnath published under Ministry of Health and Family Welfare Department, Uttarakhand.**

**Examining Printed Information, Education, and Communication Material**

**1. Language of Printed Information, Education and Communication Material**

Thakur et al. (2017) in their study mentioned that a community-based survey was conducted in select villages of Punjab and Haryana. Exit interviews were conducted with patients visiting health facilities to study the availability and accessibility of IEC Materials like pamphlets, posters, and wall paintings. It argued that IEC Material is not disturbed and maintained. Only a Few posters were available in the local language. Pathfinder International series (2018) 'Evaluation of IEC Materials' in their study stated text-heaviness as an important criterion that emphasized if something is publicly posted and intended to be read and should not have a lot of text that cannot be read quickly.

In the Bageshwar district, firstly, the printed Material in the Community health centre was in the mother tongue. Not even a single poster was in Kumauni Language. The rural women addressed

this as an issue in context to their readability of the posters. Secondly, most of the posters were heavy in text and represented readability concerns. Only a few had less text and more illustrations.

**2. Use of Graphics and Illustrations in Printed Material**

Jahan et al. (2014) in their study mentioned layout and design should be integrated in a manner that suits its audience. The printed material should be well-formatted and visually appealing. Arnold et al., in their study, stated that many printed materials contain too much information under subheadings. Adebimpe (2015) in his study 'IEC Materials Development and Adaptation including Fieldwork and Group Practical sessions' stated that visuals should complement and not compete with the text. Drawings and Photographs should be easy to understand and appropriate with cultural, social, and economic settings.

In context to District Bageshwar, The IEC printed material contained illustrations in a few of the posters, whereas the majority of them were loaded with information that rural women find difficult to read. Secondly, the use of graphics does not complement the cultural settings of the district Bageshwar. The inappropriateness of content in context to cultural settings makes the IEC printed material less interesting to understand and grasp.

**3. Pretesting of Information, Education, and Communication Material**

Devine (2007) in his study Pre-testing Communication Materials: Some quick tips stated that Pretesting is essential as it allows to ensure that campaign is understood well and identifiable with your target audience. Pre-testing explores 1) comprehension, 2) attractiveness, 3) acceptability, 4) identification, 5) persuasion.

SBCC for Emergency Preparedness Implementation Kit in the section pre-test messages and materials argued that no matter how interesting materials and messages are, they need to be always pretested. The aspects of pretesting are based upon 1) Attractiveness: Test that messages and material should command attention, 2) Comprehension measures whether the information is understood as intended, 3) Acceptance: whether the material is suitable in context to the social and cultural environment, 4) Relevance: The evaluation whether the audience is interested in reading the information, 5) Persuasion: whether the message is appealing to the targeted audience, 6) Improvement: The last aspect and the measurement that materials need to be improved and should be revised after being pretested.

In this context, IEC printed material in the Bageshwar district revealed that the government and non-government agencies that made the posters reflected the gap in context to literacy level. The majority of the rural women do not read communication material and depend upon community health workers for maternal health information. The low level of literacy in context to IEC material is seen as a gap and led to further investigation.

**Case studies (Analysis)**

**CASE 1**: **Educational Qualification of the community women in context to reading skills**

Sarah (1990) stated educators have been providing reading material since the 1940s. Studies have depicted how patient literacy was analyzed using the educational material and decoding levels to measure literacy. Patient comprehension is a necessity with compliance to educational material. It

has been observed that illiterate patients rarely admit their reading deficiency and try to conceal their illiteracy. Secondly, medical jargon is difficult to understand and interferes in enhancing their understanding of concepts.

WHO (2001) mentioned IEC driven projects create awareness by increasing knowledge and bringing about necessary change in attitude to adopt a behavior or innovation, particularly on Mother and Child Health (MCH) programmes.

The fieldwork in the three villages Kathayatbara, Mandalsera, and Bilonasera depicted that majority of the women have an access to Printed Information, Education, and Communication material. However, they cannot read and comprehend the information written in it. do not read the educational material distributed to them by the community health worker. The majority of women have either done schooling till class $10^{th}$ or $12^{th}$ standard or dropped out. They lack the basic knowledge about maternal health and showed negligence towards the reading material distributed to them.

World Bank (2012) stated that poor reading and writing skills make women more vulnerable to social inclusion, poverty, attain fundamental needs, upload basic human rights and advance better quality of life.

The women in district Bageshwar cannot participate in community gatherings and meetings. They are an active listener however they do not voice their opinions on pertinent maternal health issues being discussed. For active participation in the community ability to read and write is an essential requirement.

**CASE 2: Traditional norm of early Marriage and Child at an early age**

Asadullah & Wahhaj (2017) The statistics state that in developing countries one-third of the women marry before the age of 18 and one-ninth before the age of 15. International development agencies, national government, and NGOs have made the effort to lower marriages through legislation and enforcement of existing laws aimed at adolescents.

The early marriages in district Bageshwar highlighted that women tend to adapt to cultural settings. women prefer doing household chores and agricultural work to support their family income. Even undergraduate women, those who are studying after their marriages do not work outside. Some of the women have been working under Self-help groups and earning wages. The women are married by the age of 18 -22 years. Women have children and responsibilities to perform. Early marriage and child-bearing raise an alarm on their maternal health literacy and the risks associated. Many women face maternal health issues due to a lack of health education and understanding of their health.

Fafchamphs (2011) stated that early female marriages in developing countries involve the early termination of schooling resulting in taking on a new role within their households.

In Mandelsera, Rekha, a 22-year-old woman told in the interview that she is a school dropped-out while studying her marriage was fixed. Due to this she couldn't continue her studies. She has a two -year child too. She is managing her household activities and does not look forward to studying further. When asked about her early marriage, she mentioned that this is a norm in villages. Girls

get married early and bear children by the age of 18-23. She informed that the reason behind this is poverty, ignorance, and illiteracy due to which the majority of the girls suffer.

UNICEF also identified that reducing early marriages would curtail the trajectory of adverse consequences such as lack of freedom of choice and opportunities and early childbearing resulting in harmful health outcomes such as high maternal and infant mortality.

Evidence also suggests that before the women attain the legal age, 30% of them aged 20-24 years are married. This results in her inability to attain an education that led to her overall development.

The fieldwork stated that women in the villages of Uttarakhand exhibited similar characteristics in context to educational qualification and marital age. The community structure is close-knitted and they prefer doing household and agricultural chores for handling the house expenses. The traditional structure has made women adjust to the norms and traditions. They don't stand for their right to education and freedom of choice. Hence, the situation persists even when the government has been doing efforts towards educating the Girl Child.

**CASE 3: Low status of women and empowerment issues**

Kapur (2019) stated that the status of women remains unrecognized. In comparison to their male counterparts, they experience discriminatory treatments. Women dedicate themselves wholeheartedly to household activities and support the families in household responsibilities. Some programs and schemes have come up in context to the acquisition of education and employment. The statistics depict that quarter of the world population comprises rural women. Women face constraints in economic activities engagement. Rural women are often engaged in low productivity, low-skilled, and unpaid jobs for long working hours.

The field study depicted that in district Bageshwar, there is gender-based discrimination and social norms that make women unrecognized, unseen, and undervalued. Rural women face inequalities in context to lack of voice and representation. Most of the women are shy and suppressed in their families. The argument is that the confidence of the working educated women is higher over those who only pursued basic education.

ILO convention (1958) mentioned that equal opportunities and treatment shall go hand in hand. Both are essential to ensure empowerment in the context of sustainable development.

The 2030 agenda for sustainable development mentioned that decent jobs, entrepreneurship, infrastructure, finance, and access to education are key to protecting women's rights and ensuring the gaps in representation and transformative action.

Rural women shall be promoted as agents of change and bridge the gap by providing equal opportunities for sustainable development. District Bageshwar should make attempts to empower women and proper measures shall be taken to ensure their educational rights. This would lead to their progress in context to health.

**CASE 5: The majority of the women prefer the local language over any other language**

Mohanty and Panda (2017) in their study 'Language Policy and Education in the Indian Sub-continent stated that educational systems in linguistic minorities are disadvantaged and schools do not use Hindi as a medium of language for instruction.

In district Bageshwar, the Kumaoni language is spoken. They prefer their cultural language over their mother tongue. Even in, schools' teachers and headmasters speak in their traditional language and communicate with students. The printed health information material uses the mother tongue over the traditional language. The women and health workers also communicate in their local language. The gap is reflected in understanding the message of the content and educating women towards maternal health.

Birhanu (2011) stated that Health promotion and Health education are based upon printed information material. Based on census data mentioned that 25% of students face difficulties in learning due to their cultural backgrounds. While many scholars have argued that education in the mother tongue is essential in context to problems in effectively implementing models and lack of community support (2005, p.3).

According to Dhir (2005) in context to educational interventions, there is a need for in-depth knowledge on the proficiency of language use and preferences to make informed decisions (p.27)

In district Bageshwar, Hindi Language use is a hindrance. The women tend to understand and grasp information delivered in their traditional language over any other language. The use of the mother tongue is reflected in the printed communication material. however, the effectiveness and reach in context to decoding the information in the Hindi language show poor results.

Groff (2010) in her study 'Language, Education and Empowerment: Voices of Kumauni young women in Multilingual India' mentioned that in Kumaoni people tend to speak in the kumaoni language over the mother tongue.

The fieldwork stated that kumaoni people use the kumaoni language while conversing with other community workers. The Printed information material is in Hindi language and the village women showed negligence towards the reading material. The community Health worker communicates in the local dialect and explain to them maternal health. ASHA workers enable them to understand maternal health education by using human language and for effectiveness in the delivery of messages.

## CONCLUSION

The paper argued that the Printed Information, Education and Communication Material fails to reach the women in the Bageshwar district. The effectiveness of the message in the context of readability, understandability, and comprehension lags behind female health Literacy. The lack of Literacy renders the women in district Bageshwar from reading health educational material. They showed apathy towards gaining knowledge in context to maternal Health.

The mother and child health books are distributed by the community health centers to the women under the Ministry of Health and Family Welfare. It records antenatal and post-natal information of the women. The field notes mentioned that the majority of the women do not read the maternal health information in the booklet.

They are dependent upon the community Health work for maternal health information and awareness. Community health workers with the women using Kumauni language. The field notes also mentioned that health workers do not use instructional printed material to explain maternal

health information. They also do not instruct the women to read from posters, pamphlets, and booklets provided to them and in community health centers.

The paper argued that language used in the printed educational material is in the mother tongue and none of the printed Information, Education, and Communication (IEC) material was in the local dialect. The Graphical representation also does not reflect cultural significance in context to the health issue. The Posters and wall writings in context to maternal health awareness were found in the community health center, Baijnath. The graphical representation however does not reflect cultural significance. Culturally significant Posters and wall paintings would create a sense of belongingness and interest towards understanding the diagrams.

The women are married by 18-23 years of age and are child bearers. They showed a lack of confidence in answering the interview questions and were constantly guided by the community health workers during field investigations. Poor Literacy was found to be a very important issue among women. They are handling their household responsibilities and looking after their families. They cannot read and comprehend the information from the printed information material.

Some of the recommendations to reduce the identified gap are as follows:

1) Community Health workers and health professionals need to have the necessary information in context to educational qualification and marital status of the community they serve.
2) Efforts should be made in disseminating health information in the local dialect and supporting it with graphical representation
3) The atmosphere shall be neutral and friendly in its approach such that it provides women an increase in the level of understanding and communication.
4) It is essential to train and educate the healthcare providers and community health workers in context to effective health communication and health literacy. It plays a very vital role.
5) This can be achieved by reviewing of the materials periodically and processes used by the stakeholders and in training them in context to verbal and written communication skills.'
6) When developing interventions, it is essential to consider cultural beliefs and customs to improve health literacy among communities.
7) Current Programmes can be adapted and redesigned based on the recommendations made by evaluating and monitoring projects and their outcomes.
8) Existing policies at the national, local, and state levels can be redesigned and modified to improve health literacy outcomes.
9) Health Literacy is a valuable tool in empowering women to achieve sustainable goals and improve their health status by fulfilling the Millennium Development Goals indicator 1-5

Hence, these recommendations can act as a catalyst in improving maternal health Literacy in district Bageshwar of Uttarakhand. The state government programmes must ensure their applicability in context to the effectiveness of the message reaching the women. This would result in better outcomes and achieving goals of the policies designed under the maternal health section of the ministry of health and family welfare, Uttarakhand.

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