
Mediating the Relationship between Socioeconomic Status and Health Disparities: A Systematic review on Media Health Literacy

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Abstract

Media Health literacy is the skill that individuals gain to interpret health information and use their knowledge to impart health related information. In the global world of information spreading the proper understanding of messages are essential to attain health literacy. It is explained as the behavioural concept i.e. acquired by changing aspects of life. Media plays a special role as educator and social media itself as informants to users. Socio Economic conditions, communication aspect-language, message interpretation, cultural-beliefs, geographical conditions form the barrier. The message should flow from down to top as the target is individual and then from the public to society as a whole.

The paper tries to identify the gap in communicating health literacy in the information splendour world. Target is to identify the major disparities for Media health literacy. A systematic review was conducted to identify how social determinants are interrelated with health. The belief in traditional health care, communication gap, low economic living conditions etc. form the main reason for this disparity. Communication problems such as either language barriers or illiteracy are also the social determinants existing in the heterogeneous population where migration and immigration is taking place. Media can overcome this problem with more intervention among vulnerable sections. Communication can bridge gaps in balancing health literacy. Changing behavioural concepts and health beliefs has to be shaped according to the individual needs. Society with heterogeneous populations needs more care as individuals are the target group.

Key words: *Health literacy, media health literacy, socioeconomic status, health disparities, social determinants*

Introduction

Health literacy is the skill that individuals pertain to throughout from childhood to birth. In the global world of information spreading the proper understanding of messages are essential to attain health literate. To meet the public equity of a nation, communication and exchange of health information among health care and public health professionals are essential. Effective timely determinations and policies of health can only bring changes in the lives of the people. Health has its own goal, Sustainable Development Goal (SDG) 3 (ensure healthy lives and promote wellbeing for all at all ages) but health and its social determinants cut across all the goals. The Shanghai Declaration on health promotion, endorsed at the 9th Global Conference on Health Promotion to support the SDGs, identified health literacy as a key action area to

achieve the Agenda for Sustainable Development. It reinforced the notion that it is not only about communicating information and developing skills (health education), but also about taking actions to enable individuals to “gain access to, understand and use information in ways which promote and maintain good health” for themselves, their families and their communities. Kickbusch (2001) defines Health literacy as the skill to read, understand and act on health care information. Research on health literacy and its social aspects has emerged as the subject of development studies, medical science and public health and is interlinked with information and communication. Health literacy is having limited exposure even in developed countries. India is a developed country with a literacy rate of 74.04% (2011 census), but health literacy is still in its nascent stage. Research has been conducted by individual researchers and organizations among various communities for identifying determinants or barriers existing in the heterogeneous population.

Whereas Media health literacy derives from the two existing concepts of literacy as Media Literacy and Health Literacy. Health literacy (HL) is conceptualised as skills and competences enabling people to obtain and interpret health information and apply their knowledge to inform health-related decision-making. Shift from traditional media to digital and the change in the individuals access and to information generators and content developers, the dependency of media for health information has also changed.

(World Health Organization, 2015) Health literacy skills can be defined as ‘the personal characteristics and social resources needed for individuals and communities to access, understand, appraise and use information and services to make decisions about health’. The World Health Organisation, (2008) identifies certain determinants and constraints. Health disparities are associated with gradients in social determinants such as income, education and marginalization or disadvantage through race and gender.

Background of the Study

Health literacy is the skill that individuals gain to interpret health information and health information literacy focuses on their use of knowledge to impart health information. The concept of health literacy evolves from the history of defining and redefining the term literacy among the adult population. The conceptualization of health literacy is rooted in educational research concepts of adult learning and health communication. The definitions and concepts of health literacy undergo changes from growth and development of science and technology.

Media Health Literacy as the emerging branch of health communication focuses on the development of effective messages through different media. Serve as a critical platform for health literacy messaging. It quotes the history of America 1721, where religious and political leaders utilized pamphlets and speeches to promote inoculation during Boston ‘s serious smallpox epidemic. By the 19th century anti-alcohol reforms were taking place in various parts of the world and they arose the need to educate people on the hazardous effects of alcohol consumption. It was after world war it focused on the behavioral aspect of health. Persuading and educating people to attain better health is the most important thing. With the emergence of

mass media and technology, Over the years social scientists have been working for the improvement of public health.

Most widely cited subsequent definition focuses on the *goals* of being health literate, (Ratzan and Parker, 2000) “the capacity to obtain, process, and understand” in a health-related context, rather than the specific skills required to achieve those goals. Baker,(2006) acknowledged that there was a lack of shared meaning of the term “health literacy,” noting, “Ironically, as the field of health literacy has expanded in scope and depth, the term ‘health literacy’ itself has come to mean different things to various audiences and has become a source of confusion and debate”.

Perspective of the terms

Sorensen et.al.(2012) states that health literacy “entails people’s knowledge, motivation and competences to access, understand, appraise, and apply health information in order to make judgments and take decisions in everyday life concerning healthcare, disease prevention and health promotion to maintain or improve quality of life during the life course”. This definition explains the perceptiveness of health literacy in both medical and public health. The Center for disease control(CDC) defined health literacy as the degree to which an individual has the capacity to obtain, communicate, process, and understand basic health information and services needed to make appropriate health decisions. Limited health information literacy is an issue with patient -doctor relationships moreover in health improvement. Health care providers, care takers and patients play equal roles here. The ability to access information, the ability to understand and evaluate medical information

Rowlands (2015) states there are key factors in gathering, assessing and using information for health, and factors that influence the initiation and maintenance of behaviour change to achieve health and well-being. A linear model originating from ‘journey to health’ starting ‘family history’, ‘ethnicity’ and ‘culture’, with learning being reviewed in the context of social, community and work situations, and ending with ‘health’. ‘Reading’ and ‘understanding’ (functional health literacy skills) and the health information environment influence gathering knowledge, whilst the social determinants ‘money’ and ‘work’, together with ‘social activity’ and the ‘local community’ influence the translation of knowledge into health behaviours. Individual’s interest in health information and health information-seeking behaviour may depend upon many factors:low education levels, poor health and little interest to access and use health information. Hee Yun Lee et.al. (2014) established the importance of gender differences in health literacy and suggests gender-specific intervention may be warranted to reduce the existing gap. Improving education and health education

Since Health literacy is explained as the behavioural concept i.e. acquired by changing aspects of life. interactions, or reminder postcards from health care providers. Rosenstock (1974) states how the Health Belief Model (HBM) has attempted to assess the contribution of and ‘cue to predicting health actions’. Finally, it was assumed that diverse demographic, socio-psychological, and structural variables might, in any given instance, affect the individual’s perception and thus indirectly influence ‘health-related behaviour’.HBM can be used to know

how to communicate more effectively and to understand the best campaign measures. To understand the barriers and gaps existing in the health sector of individuals.

CL Jones et.al. (2014) The Health Belief Model (HBM) posits that messages will achieve optimal behaviour change if they successfully target perceived barriers, benefits, self-efficacy, and threat. While the model seems to be an ideal explanatory framework for communication research, theoretical limitations have limited its use in the field. NM Patterson (2018) Identify communication opportunity and subsequent communication campaigns by using HBM. Additionally, to learn how to communicate most effectively. Their findings indicate how messages should provide more information on the protective nature of the behaviours by promoting home maintenance and better hygiene. Communication campaigns should recognize and appeal to this pride as a motivator for behaviour.

Razmara et al. (2018) in their study Prediction of safe driving behaviourism based on HBM among the taxi drivers explain how HBM can be used to evaluate the beliefs, values and attitudes towards a wide range of health-related activities. They mention the construct 'cues to action' (external cues) -as the role of media. Media (radio, tv, newspaper, public relation campaign, advertisement whatever it is.) can motivate people to change behaviour.

On the other hand, Media plays a crucial role in disseminating health messages. Media can educate and social media itself as informants to users. As face to face communication requires more time and effort, mass media, especially TV and Radio plays the most important role. Health literacy is the joint venture of different sections of the society through which health information literacy can be attained. Government organizations, Media, Civil society, Community and Political leaders and even the academic and research organization can measure health literacy. Government can have a strong leadership role in developing and implementing health related strategies. Levy et.al. (2009)" health literacy is both a consumer and public health issue that exacts enormous societal costs. Low literacy affects a range of populations with critical health and financial implications, but society as a whole bears the financial burden of low health literacy. Additional stakeholders include the insurance industry, policy makers, and educational training institutions." The long-term solution lies in "improving the literacy of the population" at large through schools and other communities.

Governments can take a strong leadership role in developing and implementing health literacy promotion policies by providing sustained funding, setting up special projects, coordinating action across sectors, and conducting health literacy surveillance regularly. Improving and measuring health literacy (both strengths and needs) is particularly important in poorer areas, such that vulnerable populations are empowered to engage in early and sustained health promoting actions, whether to prevent acute and chronic conditions or to promote active and curative treatments. The paper tries to identify the gap in communicating health information On the other hand this study is significant because it has introduced health information literacy as a complementary theoretical lens for consumer health information research. In this way it has provided an additional focus to another layer of understanding to this field to know the barrier or identifying the social determinants

3 Research Methodology

The study aims to identify the relationship between socioeconomic status and health disparities. Social determinants and behavioural aspects of individuals indicate the level of health literacy, it acts as a barrier or forms a gap in health communication.

3.1 Systematic Reviews (PRISMA) approach.

The systematic literature review was undertaken in accordance with the Preferred Reporting Items for Systematic Reviews (PRISMA) approach. The objective of using the PRISMA approach is to systematically list down the process of identification, screening and eligibility criteria for selection of literature, which precedes the final inclusion criteria that has been adopted to select relevant academic literature for this study.

3.2 Search Keywords

The search process was conducted using keywords in databases. *JStore*, *Research gate* and *Pubmed -NCBI* were the databases used for search. The specific keywords include- search operators to narrow down the search. For the preliminary search in the database 'Health literacy', 'Health information' 'Media Health literacy', forms the generic terms. 'Socio economic disparities', 'education', 'age', 'gender', 'barriers', 'access to information', 'skills in accessing information' are used in specific searches to meet the need.

3.2.1 Selection criteria- Inclusion and Exclusion

Selecting articles with academic journals was the prior in the selection process. Research on Health literacy is common as they are more spoken and outraged, but Media health literacy is the upcoming branch, focusing on how people 'experience different ways of using information to learn'(Bruce,2008). As most of the study was conducted by the library and information department on using patterns of information and in medical perspectives, research was to identify the ability of the people to recognize the health conditions, read and analyse medical concepts and medicines.

So in this research, the inclusion criteria were based on two criteria- research studies during the time frame 2012-2022. Secondly, research on media health literacy- the ability of people to seek information, Motivating to health information seeking. The selection also focuses on articles on the health information seeking of divergent populations that were not confined to geographical boundaries. The study also included articles to know the barriers or social determinants in health information seeking process among marginalised populations. The study selection was extensively carried out by the title, which 'media health literacy' forms the basic criterion to be included. Furthermore the selection was based on reading the abstract.. The studies from both developing and developed nations were included to evaluate the similarities and differences in information seeking.

3.2.2 Prisma Flow Chart

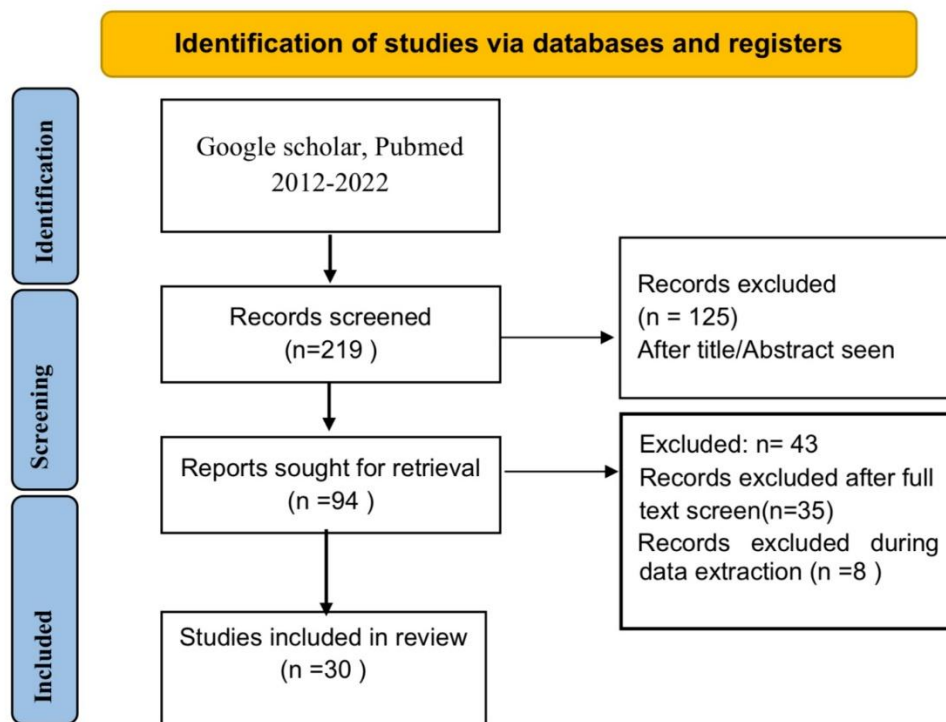


Figure:3.1 Prisma Flow Chart

3.24 Research Question

- R1 Identify the social determinants of media health information literacy
- R2 To explore the role of media in health literacy.
- R3 To examine gender disparity in acquiring media health literacy.
- R4 To identify the link between communication and health literacy.

4 Analysis

The data selected were analysed on the basis of four categories.

4.1 Methods and Samples

After inclusion and extraction of existing reviews 30 articles have been finally selected for data analysis. The study includes both qualitative and quantitative methods. The articles consist of heterogeneous samples. *Table 1* represents all the characteristics of samples included in the study.

<i>Method/Study Size</i>	<i>Type</i>	<i>No of Studies</i>	<i>Sample</i>
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Questionnaire Survey	1	281 old-aged
Cross Sectional Interview	2	
Cross Sectional study	1	1,132Participants
Semi structured	1	23 Middle aged people
Interview	1	45 Rural community
Web based survey	1	301 Health administers
Secondary Review	2	
Cohort Study	1	400 Students
Mixed Method	2	

Samples Included for the study No of Samples Appeared in the studies

Old Age People	1
Tribals	2
Health care providers	1
Middle aged People	1
Students	2
Journalists	1

Table 1 Study Characteristics

4.2 Study Concepts

The basic strategy of MHL and its further disparities- related to age, gender, education, attitude and skills are Summarised within *Table 2*. Health information seeking relates to the ways in which an individual obtains information about health, illness, health promotion activities and risks to health (Lambert & Loiselle, 2007). Research attending to the concept of health information seeking first emerged in the late 1980s (e.g. Lenz, 1984; Miller, 1987), however during the mid 1990s research attention escalated exponentially as a result of various forces of change. These forces included: the arrival of the information age and its resulting increase in potential information availability; a growing focus on self-monitoring and self-care

in the context of consumer health; and a revival of interest in health promotion and illness or disease prevention activities (Case, 2007; Lambert & Loiselle, 2007). People with Lower levels of education and poor living conditions cannot seek health information actively. Even those who can recognise the positive role of health related information in health promotion their abilities to seek information remain weak. These form the major barriers in health information seeking. Media can act as a source of information, by reducing the pressure on readers and also the source of information. ie those who give information and those who reconstruct it. Aside from reporting the news, the media can educate as it needs more evidence based practising. This is more true in the case of the internet, where students and young professionals have more access to vast numbers of documents, and where credibility of websites and trustworthiness is the question. Skill and competence of health education and information may vary, within the age, gender. To become savvy information consumers, young people may need assistance in understanding the various health media, building awareness of their own skill sets and improving their ability to make evidence based decisions. (Ivanitskaya & Boyle)

Themes No of Articles (n=30)

Media	5
Education	2
Information source	3
Age	4
Gender	4
Attitude	2
Barriers in information seeking	3
Quality in seeking health information	3
Skills/competences	4

Table 2: Themes Identified

4.3 Study Focus

The study reviewed in the research focussed on the Media Health Literacy - New learning approaches, information sources used, skills and abilities of information seekers, barriers in information seeking, role of media in generating information, need and importance of evidence based practice and Measuring MHL in the the context of various sections of people. *Table 3*, summarises the basic concepts and how they are defined through the studies. Studies more

specifically from Developed nations, where HL and MHL is part of their life index, with high standard of living. The countries, which have been researched include Australia(n=2), Finland(n=2), US(n=2), Germany(n=1), Canada(n=1), China(n=1), Bangladesh(n=1), Nigeria(n=1), Middle and Eastern country(n=1)

Major Concepts

1	Media Health literacy information	New approach for learning Role of media in disseminating health
2	Health Information Source Seeking.	Emphasizes the relationship between users and information. Internet as a source of information seeking Mobile phones as health information source Usage patterns for health information literacy Digital disparities in Health Information
3	Health information resources	Curriculum based education improve hospital administers & health care providers
4	Attitude and behaviour of	Need for enhancing health information skills public
5	Health information seeking skills measure	Performance-based indicators used to Health information Information Seeking behaviour. Competence in MHL seeking
6	Evidence based practice (EBP)	Quality information through EBP.

7	Consumer Health information Research health-	New agenda for the generation of public health-
	conducting	Identifying social determinants and population intervention programmes
		Success of consumer health information movement from down to bottom.
8	Barriers in seeking Health information	Alternate health belief(superstitious belief)
		Cultural and linguistic barriers
9	Barriers of online seeking Lack of information.	Low Access to information technology, Skills, Low readability of online

Table 3: Defining the concepts

4 Interpretation and Discussion

4.1 Social Disparities

Social determinants of health variables interact in a complex web, where each pre-existing variable has a direct relationship with specific health behaviors/outcomes and mediating/moderating relationships with other variables (HSS, 2022). This means that a change in one aspect can significantly impact other areas, creating a cascading effect. For example, it is known that the disparities to access to information is directly related to the health behavior of vaccination, whereas other disparities such as Low socio-economic conditions, unemployment discrimination on race, gender and ML—can moderate the relationship. Education or literacy, cultural beliefs, socio economic status, communication strategy all form the social disparities. Ethnic groups with poor living conditions show low health literacy. Family culture, low income, inability to access information sources all form the determinants of health literacy.

4.2 Role of Media

Media literacy's role in promoting empowerment, social capital (Jakubowicz, 2007), and civic engagement (Livingstone, Couvering, & Thummim, 2005; Martens & Hobbs, 2015) through practices such as labour, are key attributes of an informed and healthy citizens. ML plays the

role in the health . Health information is spreading and the media itself sharpens the information. In the modern world, social media, Social media is the interactive media for health professionals and easily share their information. Even though educated people are depending more on the internet, health literacy is very low among them, so social media content needs to be maintained according to people's access. Mobile phones are the most supportive in communicating health literacy and information and Cost effective medium for message transmission and information.

Felisbela et al (2018) in their study ‘power to press’ explained how the media tried to help people overcome the pressure during the outbreak of Legionnaires’ disease by giving them quality reporting that resulted in the promotion of health literacy.

4.3 Gender Disparity in Media Health Information Literacy

Gender is a prominent issue in health. Since it forms one of the major social determinants of health literacy, health care and workers should try to communicate accordingly with gender differences. But the studies also implicate even though gender disparity is there people with high standard of living are showing high MHL. *Stephan et al(2012)* in their study about old age people pointed out that Gender was only connected to confidence in the ability to use obtained information in order to take care of one's own health and the disparity is very low.

4.4 Language and Literacy in the Health

Language forms the major barrier. Language and literacy are the inseparable concepts which determines one's efficiency in communication. While applying health information in various contexts the major barriers were lack of education, Health literacy can be should be measured as literacy is measured. Moreover, health literacy should be enhanced according to the needs of the public, eg. a grass root level intervention programme is needed as good individuals are information providers or consumers. Health literacy is community-based education and intervention, along with personal forms of communication. Its form of empowerment focuses on eliminating all barriers or determinants. Linking health education and health literacy can lead to better individual health and public health where society is beneficialCommunity workers can be employed for educating the rural population.

Education intervention programmes among school going students show an increase in health literacy rates. Even though education is a powerful tool for social mobilizations and change, ever since 100% literacy is not acquired globally, health information literacy is also a challenge. Low health literate people are more likely to make mistakes with health information and messages. In Indian context 60% of people in rural India are illiterate. The relationship between doctors and patients is always a challenge in rural India. This is an underlying problem among the marginalised and vulnerable sections also.

4.5 Information Access and Communication.

Information access verily depends upon communication in modern society. We need information to communicate with each other, work, conduct business, interact with government agencies, and to manage our social lives. Information and technology are increasing day by day, but what strength of information and quality of information is still in a debate. Evidence based Practice, Public awareness, is the best way to ascertain it. Government initiative to training and library as training to access the information to health workers and caretakers is essential in the information splendour world. The competence and skill of these people can only assure better health in the society.

4.6 Culture and belief

Health belief, disease attribution to health behaviour and alternative health measures are followed by migrants which indicated low health literacy. Social cultural disparity beliefs in spiritual skills are shaping healthy. Access to healthcare is still in a deprived condition, due to the cultural backwardness, belief system prevailed within them. They are linked with culture, language and facets of life that vary widely between socio-economic conditions.

Above all 'age' is significant in all research, as the ability to seek information, livelihood, access, education level, and employability all these factors are interdependent. Wang Fuzhi et al in their study about 'digital immigrants' in Rural China argues that digital immigrants are people who were not born in the age of digital technology and were not introduced to digital technology tools early in life (Diane & Laeunda, 2010). Their study result, observed as MHL, was associated with an individual's interest in health information and health information seeking behaviour where age forms a significant behavior.

5 Conclusion

This study detailed the concept of MHL, with its approaches in different contexts. It is the discrete form of literacy and is important in social economic and health development. Even though illiteracy is the major problem of accessing health information the socio economic status and living conditions are a major issue for low education. For vulnerable sections in the society especially in remote areas and immigrant population access to modern media and information is still far for them.

Social disparities continue to be norms and parallel hindrance for seeking health information. Health literacy is the skill that attained through cognitive approach, the behaviour attitude and skill attained by a person is different to others. It is here that social determinants exist as in one form or other. Each of the above reviews explains the different strategies and methods. Education and basic skills form the fundamental criterion for obtaining health information but the lack of education and illiteracy is still existing. Social determinants - Gender, age disparity is the major issue faced in society. Communication problem-barrier in information seeking and access, Language, age, gender, socioeconomic conditions etc., is still prevailing in the society. Health related quality of life depends upon many socioeconomic

determinants. From the origin and development of concept to a new branch 'Meda Health literacy' to the measurement and analysis among vulnerable population has undergone through many peer reviews. Vulnerable section needs more communication intervention programmes. Understanding the need and barrier and imparting practice and policy to ensure information to all sections of the society, as well as quality of information is to be checked. For vulnerable sections in the society especially in remote areas and immigrant population access to modern media and information is still far for them. Media can make sure of these, as partners with health care takers and policy makers. Easy access and identifying the competence to reach healthy information can only create a skilled mind to healthy people.

5.1 Recommendations & Limitations

Even though this study identified the major disparities existing, furthermore research has to be conducted among various sections of the society. The studies included were heterogeneous in nature and the study identifies the need to focus more on the methodology aspects i.e. both qualitative and quantitative data collection should be adopted-Vulnerable section needs more communication intervention programmes.

Furthermore future research should explore methodology and setting research questions. Selecting the model for research on health literacy is also of concern as many models fail to meet the specific target. The existing gap of media health literacy should be filled by global participation of people, government and organisation to meet the changes.

The future studies and research concerning MHL needs to consider whether the instruments and methodology used are able to reflect the breakthrough. The studies used extensive tools developed by them to measure, and most focus on the readability assessment and ability of information seeking through the internet. Measuring the challenges in accessing the information also needs to be considered with technological barriers.

Several limitations can be acknowledged in the context of this study. Firstly, the relationships among media contact, perceived social support, self-efficacy, and health literacy are impelled by the cross-sectional nature of the study design. As the studies selected here are scattered across the world, research in developing countries is focused on intervention and education through curriculum, where there is high access and availability. Sparingly in the developing nations and marginalized communities modern media and technologies is still in paving condition. Developed countries have more adhesive MHL outreach, which cannot be generalized to the same group of people where education is not in reach.

The studies followed different methods and approaches, so generalising the result with heterogeneous population is a major limitation of the study.

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