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Health Literacy: A Catalyst for meeting health information need of BPL Community of Malda District

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Abstract:

Introduction: Health literacy is the characteristics of an individual as well as the social resources needed for the communities to retrieve, acquire, understand, evaluate and use the information and services to make decisions about their health. This paper seeks to explore the need and the impact of health literacy that causes a change in the lives of below poverty line communities and the way to improve health literacy to make the health information accessible, easily comprehensive and accumulate effective outcomes. Also, examine the significant role of libraries to inculcate health literacy among the community as well. The result of the study was based on the survey and the questionnaire to analyze and to find out the information seeking behaviors, attitude towards the health literacy and its different dimensions in their day-to-day life.

Methodology: A descriptive health literacy survey was conducted to examine the mixed-method paradigm in this study. The questionnaire was used for data collection from 385 respondents of the Below Poverty Line community and the data were analyzed and reviewed based on SWOT analysis. EHIL screening tools (Niemela et al. 2012) were used for measuring health literacy.

Originality/ Value: The study contributed to the scope of knowledge by providing a better understanding of the relationship between health literacy, education and awareness. Health literacy has a major part to play when it comes to sharing knowledge or information related to health and hygiene. Health literacy can provide ample scope on health awareness and sustainability both ends in this respect.

Keywords: *Health literacy, Below Poverty Line (BPL) community, SWOT Analysis, Role of library.*

Introduction: Health literacy is described as “the degree to which individuals can obtain, process, and understand basic health information and services needed to make appropriate health decisions” (IOM 2004). The thrust of the article is to portray health literacy’s impact on the metamorphosis of human life. The purpose of the paper is to reconnoiter the phenomena in the context of changing patterns of information seeking for health services through health literacy and try to demonstrate the importance of health literacy instruction. It also deals with an integrative approach that will delineate the competencies of health literacy which is changing the dimensions of health and hygiene and information services improved by health literacy. This is a case study of the BPL people living in Malda district, highlighting their awareness about government health schemes, health and sanitation, and their health hygiene. Health literacy can open up possibilities of transformation of the traditional concept of a health regimen into cognizant one, as it is just one piece in the puzzle of fostering community and culture towards awareness. Health literacy overhauls the sustainability of human life by using health information and knowledge which helps them to make the right decisions for better healthy living. The explosion of information and the rapid advancement in information communication technology have made it important for every human being to assess the information before utilizing it. Kickbusch (2008) stated that now-a-days health information from various sources like new media, peer reviewed literature, government health organizations, health institutions and organizations, books, media, friends and family and the internet. And most of the individuals have problems in understanding health information to assess. Developed countries faced new challenges in the 21st century, helping people understand and use health information (Medical Library Associations, 2005) similarly it is the same from the developing countries as well. With the rapid increase in the amount of information leading to abundance, managing the information became more difficult. Under these circumstances libraries can take steps to address this problem and also can play an important role to lighten people with health literacy. Also in public libraries, librarians can assist in finding significant and credible information (Butler, 2019).

The study aims to do a SWOT analysis of health literacy among the Below Poverty Line (BPL) community in Malda district to find out the strengths, weaknesses, opportunities and threats of health literacy and the scope for refinements and improvements that are needed to foster health literacy and consequently a better health.

Literature review: The review of literature focuses on three themes; (i) the general health literacy perspectives and their competencies, (ii) health information-seeking behavior and (iii) the effective way of SWOT analysis to improve the outcomes.

Hirvonen et al., (2020) in their study examined the applicability of multidimensional health literacy. He used the screening tool data from Finnish upper secondary school students, Finnish young men and adults. Kaur (2017) examined the importance of health information literacy for seeking preventive health, disease control and improving the well-being of citizens and empowered them with cognitive and social skills to access, understand, evaluate and use information appropriately to make decisions for better health. This study attempted to learn the awareness and attitude of medical college librarians towards health information literacy and also their perceptions of health information literacy promotions, strategies to the barriers of health information literacy. Ten medical colleges and institutes were taken from Punjab and Chandigarh and chosen as samples for this study.

Kaur and Harsh (2007) highlighted the effective way of finding out improvements are needed to foster health literacy and also examined the SWOT analysis on health literacy in India and also discussed the need for improvement in health literacy and its possibilities which made information accessible, easily understandable and provide effective outcomes. This study reviewed relevant literature using keywords, health literacy, SWOT, and used databases like PubMed Central, Medline, F1000, OviD, Scopus and ResearchGate. This study concluded that health literacy can be used as a tool for empowerment of the health.

Kickbusch (2001) presented health literacy as a separate and distinct form of literacy which is increasingly becoming essential for social, economic and health development and also emphasized the positive effects of education and general literacy on population health specially on women's health and had closer analysis of the HIV/AIDS epidemics. This study reviewed concepts, definitions, measurements and challenges of health literacy and also proposed to develop a set of indicators to health literacy using national literacy surveys around the world.

Kolesnyk et al., (2021) used four need-based research actions through SWOT analysis which led among citizens and healthcare professionals, based on multidimensional empowerment where SWOT analysis was likely to advise future state-based initiatives to complete the evidence-based implementation in Ukraine. This study concluded that the SWOT analysis of the implementation process allowed us to plan and optimize future steps towards the EBS program in Ukraine.

Laksham (2019) assessed that the application of drones in public health using SWOT analysis technique as this analysis would be useful to assess the feasibility of a drone's success or failure in public health. In his study article on drones searched by PUBMED and Google scholar and the strengths and weaknesses inherent to drones and its usage in public health were identified whereas the opportunities and threats of SWOT analysis might arise from the external environment were stated as they might be utilized or avoided respectively.

Levin-Zamir et al., (2007) explained the international and cultural perspective of health literacy. This study explored the significance of health literacy initiatives, interventions, practice and research and also addressed the health challenges in the global context. Emphasize the impact of health literacy among the children, elders in the family and in the community. The need of health literacy and the key role of it also stated in case of international trends like migration and immigration.

Luo (2018) examined the health information programs in public libraries, basically focused on health-related topics, how the public libraries reached out to their user communities, raising the awareness and interest in healthy lifestyle, fostering access to information about good health and strengthening health literacy among the citizens. This study approached a content analysis of the health information programs with a large urban public library system and how other libraries help to be understood better health information program planning and to implement them.

Mendez et al., (2019) explored the implementation and impact of health literacy among the youth from seasonal farmworker's families in rural eastern North Carolina with the support of a National Network of Libraries of Medicines Health Information outreach award they conducted a qualitative semi-structured interviews with middle and high school age participants. Their study

suggests the importance of ensuring equitable access to the internet as an effort to upgrade educational and health outcomes for seasonal farmworkers and their families.

Shi and Luo (2020) investigated the health information issues related to older adult's health needs of the Chinese older adults, and the role of the public libraries in China. Focus group interviews were conducted to investigate the health information needs, their seeking behavior and the role played by the public libraries to disseminate the health information in improving their health literacy. The study examined the challenges they encountered while seeking health information and their expectations of using the public libraries.

Objectives of the study:

1. To delineate health literacy and its competencies.
2. To investigate the level of health literacy of the Below Poverty Line (BPL) community of Malda district.
3. To measure the health literacy and the impact in day-to-day life of the Below Poverty Line (BPL) community of Malda district.
4. To find out the strengths, weaknesses and opportunities and threats of health literacy and its positive outcomes towards human sustainability.
5. To examine the role of the library in inculcating health literacy among the Below Poverty Line (BPL) community of Malda district.

Methodology: A questionnaire-based survey and interviews were conducted among the Below Poverty Line community of Malda districts comprising 15 blocks. The basic purpose of the survey and interview is to gather qualitative and quantitative data from the respondents about their awareness and basic knowledge of health information and govt. schemes related to health, their attitude towards health and hygiene and their information seeking behaviors. On the basis of SWOT analysis, the data was reviewed and results were presented. EHIL (Everyday Health Information Literacy) screening tool (Niemela et al. 2012) is used for measuring the health literacy of the Below Poverty Line (BPL) community of Malda district with challenges in accessing, understanding, evaluating and using the health information in everyday situations.

Health literacy and its competencies: According to Femi and Oyinade, (2017) health literacy is associated with the possession of knowledge about health, in which an individual identifies and transforms information into knowledge by using skill-based processes. It is a set of abilities to identify a health information need, recognize information sources and use them to access relevant information (The Medical Library Association, 2016). "The degree to which there is a fit between the health information processing demands of different situations and the skills of individuals in these situations" (Rootman ,2002). Health is a critical resource for day-to-day activities and living. Health literacy expands on the idea that health and literacy both are the resources for everyday living and the level of literacy influences one's potential to act on health information and take control over one's health as an individual, and consequently, one's family and community. "The degree to which people are able to access, understand, appraise and communicate information to engage with the demands of different health contexts in order to promote and maintain good health across the life-course" (Kwan, Frankish and Rootman, 2006).

Nutbeam asserted that health information and education initiatives are integral to improving health literacy and defined three distinct ‘levels’ of health literacy

- **functional:** basic skills in reading and writing necessary for effective functioning in a health context;
- **interactive:** more advanced cognitive literacy and social skills that enable active participation in health care; and
- **critical:** the ability to critically analyze and use information to participate in actions that overcome structural barriers to health. (Nutbeam, 2000)

Table 1: Demographic information of the respondents

Gender	Number	Percentage
Male	245	63.64
Female	140	36.36
Total	385	100
Age	Number	Percentage
15-20	112	29.09
21-26	119	30.91
27-32	99	25.71
32 and above	55	14.28
Total	385	100

Table 1 depicts the demographic information of the respondents. 245(63.64 %) of the respondents were male while 140 (36.36 %) were female. Also, 112 (29.09 %) respondents were between 15-20 age groups, 119 (30.91 %) were between 21-26 age groups, 99 (25.71%) were between 27-32 age groups while 55 (14.28 %) were between 32 and above.

Table 2: Level of Functional Health Literacy

Level of Functional Health Literacy	YES	%	NO	%
Able to read and understand medical appointment slips	143	37.15	242	62.85
Able to read and fill medical consents form correctly	129	33.51	256	66.49
Able to read and understand written medical labels and health information	132	34.29	253	65.71
Able to understand verbal and written instructions given by the physicians/nurses/pharmacists/health care professionals and follow them accurately	171	44.42	214	55.58
Have knowledge adhering to self-care at home and follow up the appointment schedules properly	197	47.05	188	52.95
Know how to take medicine as per the instructions given by the health care professional	292	75.85	93	24.15

Table 2 shows that the respondents were not functionally health literate. It is evident that the serial low level of responses from the respondents regarding all the items on the functional health literacy list. Majority (66.49%) of the respondents could not confidently fill out medical forms and they could not read and understand written medical labels and health information (65.71%). They also stated that they could not read and understand medical appointment slips as well as understand the verbal and written instructions given by the health care professionals (62.85%), (55.58%) respectively.

Table 3: Level of Interactive Health Literacy

Level of Interactive Health Literacy	YES	%	NO	%
Able to communicate with medical personnel about my health problems	299	77.67	86	22.33
Able to understand information relating to my health problems	275	71.43	110	28.57
Have trust in that information which I get from the medical personnel about my health problems	267	69.36	118	30.64
Can freely talk to medical personnel and give them all the information related to my health when they need to help me.	235	61.04	150	38.96
Can inquire all the questions related to my health issues	235	61.04	150	38.96

The result in table 3 displayed the higher level of interactive health literacy of the respondents. In Malda district, the majority of the respondent's response indicated that they were able to communicate with medical personnel about their health problems (77.67%). Also, able to understand information relating to their health problems (71.43%). More than half of the respondents (69.36%) responded that they had trust in that information which they get from the medical personnel about their health problems. Respondents could freely talk to medical personnel and give them all the information related to their health when they need to help them (61.04%) and could inquire all the questions related to their health issues.

Table 4: Level of Critical Health Literacy

Level of Interactive Health Literacy	YES	%	NO	%
Concern about my health issues and like to find out lots of information related to my health	246	63.09	139	36.91
Within a regular interval have followed a routine check-up	46	11.95	339	88.05
Critically analyze and use information to overcome structural barriers to health issues.	115	29.88	270	70.12

Table 4 reveals the critical health literacy level of the respondents is high only when the it was their health concern and they also liked to find out lots of information related to their health (63.09%) but it worrisome when it is their response concerning their understanding of the importance of having routine check-up within a regular interval (11.95%) It is seen that only 29.88% of the respondents critically analyzed and use information to overcome structural barriers to health.

Table 5: Measuring the health literacy and the impact in day-to day life with EHIL screening tool with three factor structures

Factors	Test Areas	Mean score (Max=5)	Decision
Awareness	Health information is important and essential to be informed about health issues.	4.84	High
	Know where to seek health information	2.35	Average
	Seek and prefer various sources to get information	2.05	Low
	Apply health related information for your own health and closed one.	2.15	Low
Access	Face difficulties to understand the health-related terminologies	3.98	High
	Face difficulties to recognize and believe the authorities in health issues	3.92	High
	Face difficulties to find information from printed sources i.e., books, magazines, newspapers etc.	3.56	High
	Face difficulties to find information from the internet	4.02	High
Assessment	It is easy to assess the reliability of information from printed sources i.e., books, magazines, newspapers etc.	1.98	Low
	It is easy to assess the reliability of information from the internet	1.76	Low

Mean score of the test area of health literacy is 4.84 on 1= (never) to 5 = (always) scale with EHIL screening tool with three factor structures health information literacy where the test areas were on 'awareness', 'access', 'assessment'. Table 4 demonstrates that respondents had high, average and low scores in 'awareness' test areas whereas high scores in 'access' and low in 'assessment' test areas.

SWOT analysis of the health literacy:

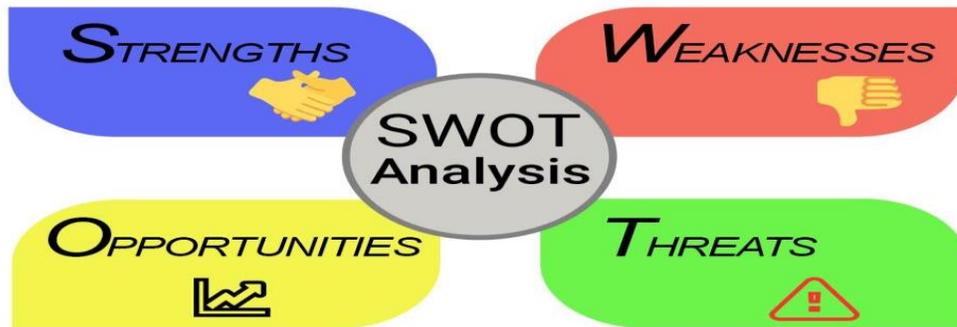


Figure 1: With SWOT analysis it would be possible to assess the strengths, weaknesses, opportunities and critical threats and examine how to evolve and what implications that evolution has for the threats and opportunities the community is facing. SWOT analysis would show the link between all aspects of health literacy.

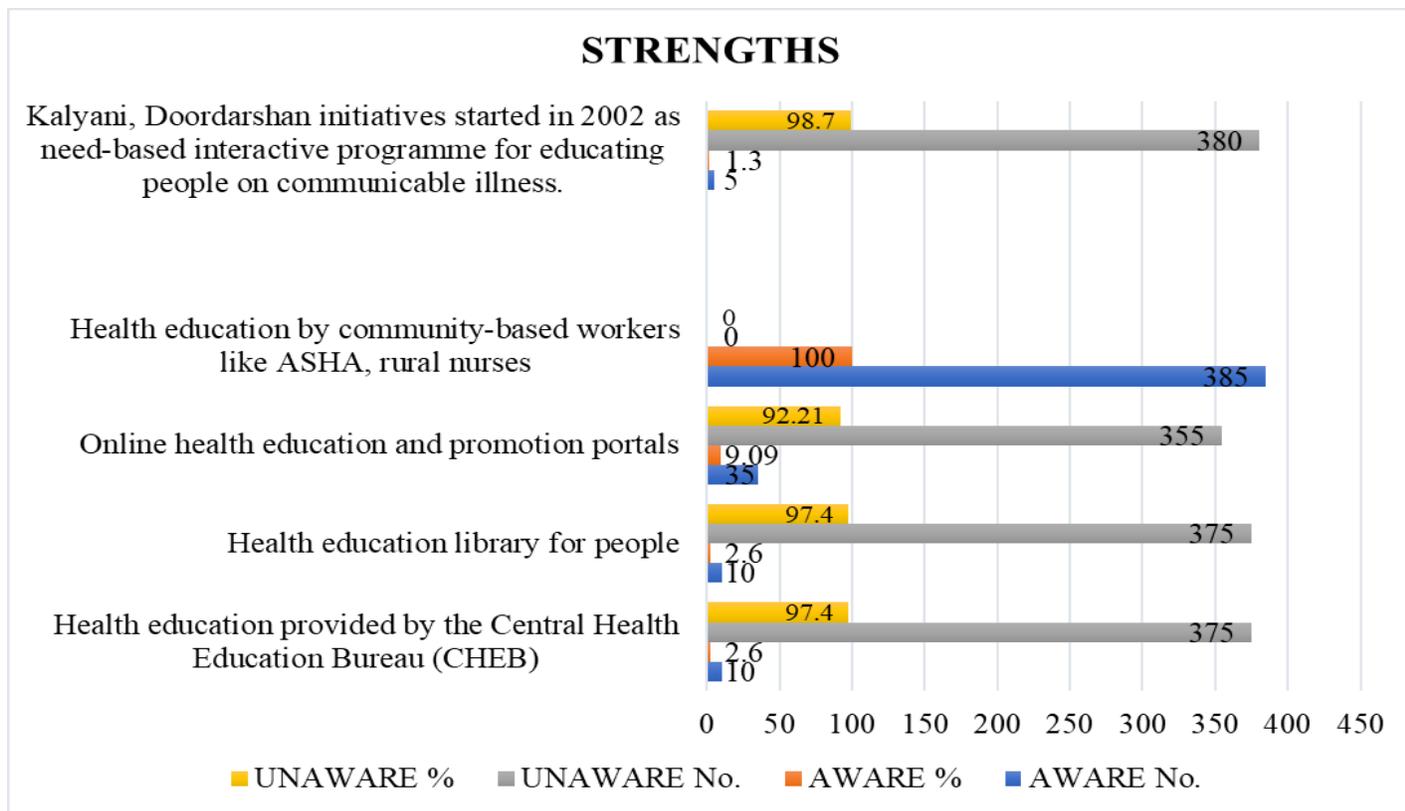


Figure 2: Figure 2 shows the awareness and unawareness of the community and demonstrates the strengths of the health literacy which are - health education provided by the Central Health Education Bureau (CHEB), health education library for people, online health education portals, health education by community-based workers like ASHA, rural nurses and a Doordarshan initiative like Kalyani (started in 2002 as need-based interactive programmed for educating people on communicable illness and health behaviors). The respondents were fully aware of the community-based health workers like ASHA, rural nurses only and there would be much more to be aware of and get knowledge about health literacy.

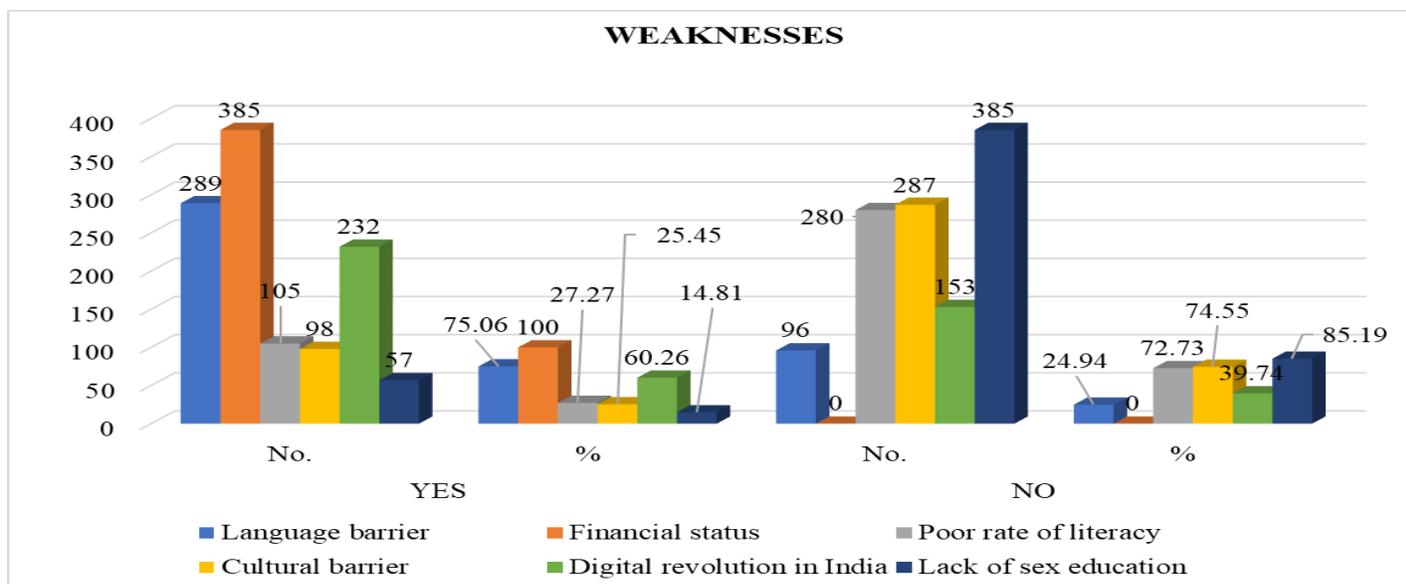


Figure 3: As shown in the above figure 3, there were many weaknesses like language barrier, cultural barrier, financial status, poor rate of literacy, lack of sex education, digital revolution in India. The greatest weakness was financial status (100%), followed by language barrier (75.06%), digital revolution in India (60.26%) as they were not technologically sound, poor literacy rate (27.27%), cultural barrier (25.45%) and lack of sex education (14.81%) respectively.

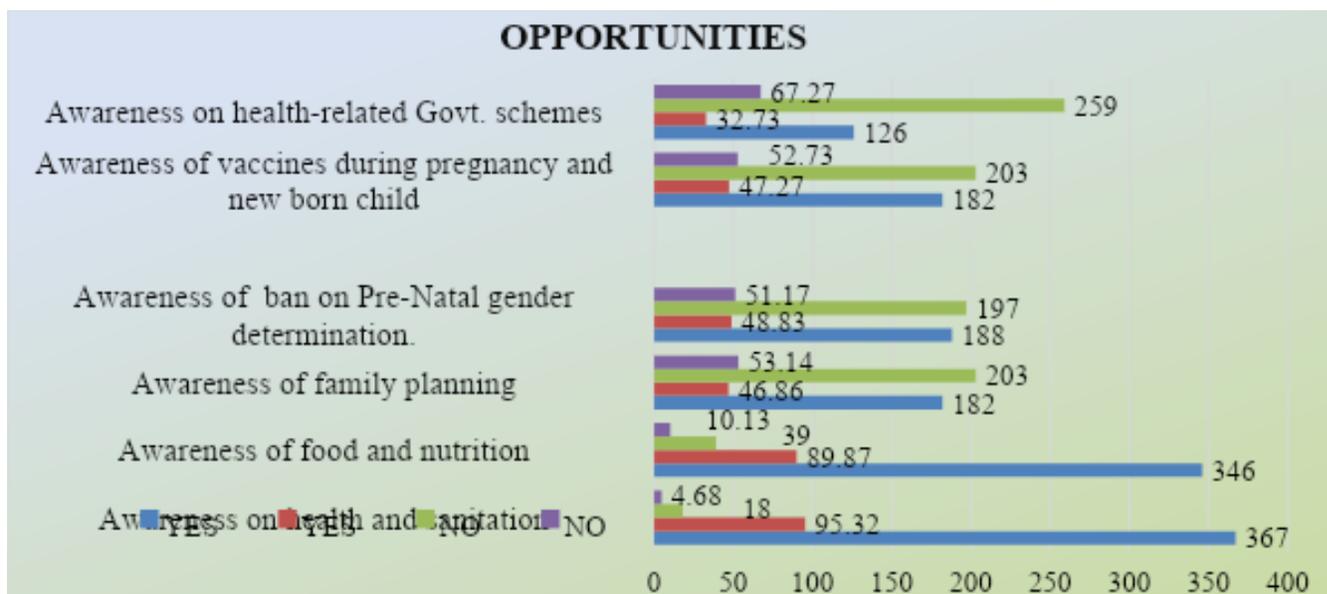


Figure 4: Figure 4 depicts the opportunities where health literacy can improve their health conditions as they become more aware. The opportunities are – awareness on health-related Govt. schemes, awareness of vaccines, awareness of ban on Pre-Natal gender determination, awareness of family planning, awareness of food and nutrition and awareness on health and sanitation. 95.32% of the respondents were aware of their health and sanitation, 89.87% were aware of food and nutrition, 46.86% were aware of family planning, 51.17% were aware of ban

on Pre-Natal gender determination, 47.27% were aware of vaccines during pregnancy and newborn child, and 32.73% were aware of health-related Govt. schemes.

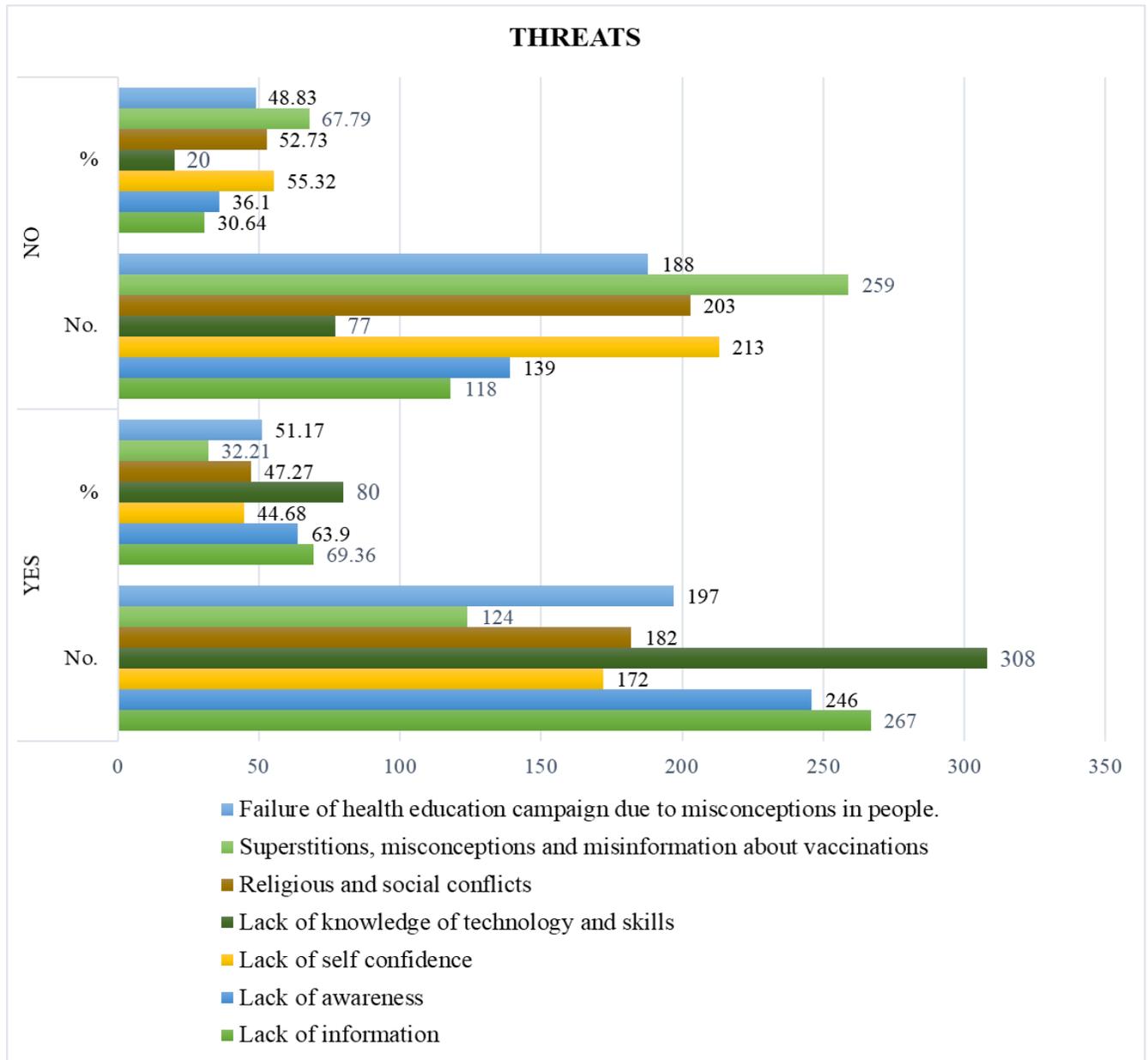


Figure 5: Figure 5 reflects the threats related to health literacy, 69.36% of the respondents lacked information, 63.9% respondents lacked awareness, 44.68 % lacked knowledge, 80% of the respondents lacked knowledge of technology and skills, 47.27% of the respondents felt religious and social conflicts, 32.21% of the respondents felt that there was superstitions, misconceptions and misinformation about vaccinations and 51.17% of the respondents felt that health education campaigns failed because of misconceptions of people.

Table 6: Role of library in inculcating health literacy

Role of Libraries	Aware		Unaware	
	No.	%	No.	%
Provide library orientation services	95	24.67	290	75.33
Provide materials related to health care printed journals, abstracts, monographs and indexes etc.	88	22.86	297	77.14
Provides access to health care information physically with catalogues and classified lists	92	23.90	293	76.10
Provide reference services, facilitate quick access health care information	81	21.04	304	78.96
Preserve, archive and conserve health care information	84	21.82	301	78.18

Table 6 depicts that only 24.67% of the respondents aware of library orientation services whereas 22.86% of the respondents aware of the printed material provided by the library like journals, abstracts, monographs and indexes etc. 23.90% of the respondents aware of the catalogues and classification services of the library. Very less percentage i. e. 21.04 aware of the reference services, quick access health care information services and only 21.82 % of the respondents aware of the preservation, conservation and archival services of the library.

Discussion of findings and Conclusion: Health literacy is essential for seeking preventive health, improving the well-being of people and also a social skill to understand, evaluate, and use information to make good health decisions and act like a catalyst to meet the health information need. This study investigated the health literacy of the Below Poverty Line (BPL) community of Malda district by assessing the functional, interactive and critical health literacy competencies of the respondents. The findings and analysis revealed that the level of functional health literacy is dismally low, while the interactive health literacy is quite encouraging. The critical health literacy is very low as the respondents revealed that they are concerned about their health issues and would like to find out lots of information related to their health but they had not taken any steps to follow a routine checkup within a regular interval, because of some financial issues and lack of awareness, even though they critically analyze and use information to overcome structural barriers. On the other hand, when the EHIL screening tool evaluated the health literacy and the impact in day-to-day life of the community the mean score was low in case of awareness and assessment but high in accessibility which shows a positive outcome that might be seen in the future if the level of awareness and assessment increases. In the SWOT analysis the results were reviewed and then reclassified into strengths, weaknesses, opportunities, and threats. The analysis shows that the strengths of health literacy are not properly utilized. An increase in health literacy rate will not only build on an individual and his/her family's health but also improve society in general. Certain weaknesses were there such as language barrier, cultural barrier, financial status, poor literacy rate, digital revolution in India. In case of digital revolution this should be both a strength and an opportunity, while it is a weakness as computer literacy rates in India are very poor, with a staggering room for enhancement. Population explosion is one of the major weaknesses in India, somewhere the root cause is lack of sex education and unawareness of safe sex practices, in such cases sex education among the people will benefit most and also help to curb the growing population. While looking at another element of SWOT, i.e., opportunity, there are ample number of opportunities in health literacy and it can be used as the

tool for empowerment of health and strengthening active participation in health care activities with health promotion and prevention efforts. The awareness of Govt. health related schemes, food and nutrition, health and sanitation, vaccination, mother and child care can bring positive outcomes in healthcare and sustainability of human life. On the other hand, lack of awareness and confidence, religious and social conflicts, misconceptions, superstitions are the menace or threat to the society can cause possible damage. The study addressed the importance of the library to facilitate access to the user's health information. There was lack of awareness towards library usage, it is therefore, necessary for libraries to develop programs, services to further health literacy awareness, education, and initiatives for the users and foster communication and interpretation of health information for the users and also support for access to health information through collaboration with community health establishments by ascertaining community health information needs. The Government of India has developed portals of credible health information on various health aspects. Libraries can play an important role in raising awareness of information seekers about these portals. In comparison to literacy rate, health literacy rate continues to increase at lumbering pace, low health literacy is associated with increased serious medical conditions, chronic illness, lower rate of vaccinations and consequently higher morbidity and mortality rate.

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