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Sources and Use of Sexual and Reproductive Health Information Among Deaf People in Ghana

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Abstract: *While information is critical for making informed decisions on SRH issues, the deaf community in Ghana has limited access due to social, economic, and institutional barriers. The purpose of this article is to describe the sources and use of Sexual and Reproductive Health (SRH) information among deaf people in Ghana.*

Data for this article were derived from a SRH needs assessment project with deaf people in Ghana. The study involved 179 participants, consisting of 178 deaf participants— 26 focus group participants, 152 survey respondents— and one hearing person served as a key informant. Findings from both the focus groups and survey revealed that deaf people in Ghana obtained SRH information from a wide range of sources: school teachers, family members, health professionals, friends, the media, and SRH organizations and centers.

The study findings also indicated that although health professionals are the official source of information on SRH issues in Ghana, they were not the most utilized and preferred source for the deaf community due to communication barriers. These findings are consistent with other studies and suggest that any SRH program aimed at improving access to information to the deaf population should endeavor to eliminate communication barriers.

Keywords: Sexual and Reproductive Health, deaf people, Ghana, disable people

1. Introduction

Access to quality information is vital to making informed decisions and choices. According to Rogers (2003), the availability of reliable information is critical for reducing uncertainty and enabling people to make choices among a set of alternatives in problem-solving situations. In particular, health information is important as it empowers people —to make choices, take control, and be responsible for completing diagnostic and therapeutic regimes (Houston & Ehrenberger, 2001). Making informed decision and having control over one's reproduction and sexuality, therefore hinges on the availability of adequate and quality information.

The accessibility and usability of information for decision-making depends on a myriad of factors. Foremost among them is the degree to which effective communication occurs between people, for instance, between providers and users. While effective communication is influenced by many factors, such as the level of educational attainment, language, age, gender, culture, cognitive limitations, the nature of information, and power issues (Schiavo, 2007). The use of complex jargon or technical terms, common in health-related information could make comprehension of information difficult. Irrespective of their level of education, users desire health information that is simple and easy to understand (Schiavo, 2007). Therefore, greater information accessibility requires that there is a reasonable amount of meaningful and reliable information for them to deal with (Bath, 2008).

The importance of universal access to meaningful information in promoting quality of life was recognized at the United Nations sponsored International Conference on Population and Development (ICPD) in Cairo in 1994 (United Nations Department of Public Information [UNDPI], 1995; Papineni, 2004). Although it was recognized that universal access to quality SRH information is fundamental to enhancing quality of life, for many people, decision making is impaired because they rarely have access to detailed,

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accurate, and meaningful information about their sexuality and reproduction (Shalev, 2000). Notable among them are persons with disabilities. Persons with disabilities have difficulties accessing information due to inadequate attention given to their concerns in policy-making and service provision. Negative perceptions about disability and lack of societal understanding of their concerns, have led to the disregard of people with disabilities in SRH policies, as well as other prevention and outreach programs (World Health Organization [WHO], 2009; Wilson & Monaghan, 2006; WHO, 2009). Sexual and reproductive health information is often not provided in accessible formats such as Braille, large print, simple language, pictures, and sign languages, hence depriving access to those with visual, hearing, and intellectual disabilities (WHO, 2009). Low literacy levels among people with disabilities compound the issue of access. There is therefore the need to understand the SRH information seeking behavior of deaf people in Ghana. This study was conducted to examine the current and preferred sources of SRH information for deaf people in Ghana. The aim is to use the findings to guide the provision of deaf-friendly SRH information in order to increase access.

2. Methods

2.1 Study design

The study was a participatory SRH needs assessment targeting only deaf people who were fluent in the GSL in Ghana. The study utilized a two-phase, sequential, mixed methods design, consisting of three focus groups to assist in the development of a survey and then the implementation of the survey for needs assessment data collection. Review of documents, discussions with a SRH worker, and observations helped to clarify data gathered from the focus groups and survey. The focus groups allowed an in-depth exploration of themes to identify SRH issues that were important for the development of the quantitative (survey) instrument. The survey phase was conducted to document needs related to these themes within the deaf community.

The mixed methods approach facilitates triangulation of data collected on the same issue, which often helps researchers develop a deeper understanding of the issue being investigated (Creswell & Plano Clark, 2007). Triangulation allows the researcher to complement the differing strengths of quantitative and qualitative methods (Creswell & Plano Clark, 2007). For example, Demarest, Holey, & Leatherman (1984) used surveys, interviews, and records to assess the educational needs of hospital nursing staff. Participants were randomly assigned to either survey or interviews. A key finding from the study was that the three data collections techniques resulted in different needs. According to the researchers, even though it was more expensive to collect data from multiple sources, they gained a fuller understanding and were better able to interpret the result than if they had relied on only one source. The complexity of SRH issues in Ghana presents similarly complex data collection and interpretation challenges.

2.2 Population and Sample

A total of 179 participants were recruited for the study, of which 26 were focus group participants, 152 survey respondents, and one person who served as a key informant. This was the number of deaf persons willing to participate in the study. Also, it was difficult getting eligible (deaf people with formal education) volunteers for the study. All participants, except the key informant, were members of the deaf community and were considered well informed about issues in the community. Participants comprised of all persons who were deaf or hard of hearing and who were fluent in the GSL. Lack of formal education was an exclusion criterion since formal education is required to use the GSL. Communicating with this non-GSL group would have required learning the local language such persons developed to communicate within their communities, a serious logistical challenge since Ghana is a multilingual society. Moreover, users of GSL were more likely to have used or had attempted to utilize SRH information from education programs that disseminated material through magazines, posters, online materials, and brochures, and thus were more likely to have better understanding and experiences to explain challenges deaf people encounter when accessing SRH information and services.

Participants were recruited from two communities in Ghana: Tamale, a city from the Northern Zone and Accra from the Southern Zone of Ghana. The intent in selecting these communities was to sample respondents with diverse characteristics so that views from people with different perspectives on the topic could be represented. Tamale and Accra represent the Northern and Southern sectors of the country, which reflect important differences in culture and socio-economic development. The Northern sector is generally poor and characterized by poorly developed infrastructure and harsh climatic conditions as compared with the Southern sector (National Population Council, 2000; Berry, 1995).

Specific locations where participants were recruited from the two cities were a deaf senior high school, deaf churches, and a deaf center. While focus group participants were recruited from two deaf churches and a deaf center in Accra, recruitment of survey respondents was conducted in a deaf high school and three deaf churches. These locations were selected in order to increase the likelihood of identifying deaf people who had formal education and knowledge of the GSL. The key informant was recruited from one of the SRH centers. The informant had done a study on HIV/AIDS with the deaf community and so he was familiar with the deaf community. Recruitment was done through announcements that included information about the study and eligibility requirements. Informed consent was obtained from all participants before recruitment.

Of the 152 respondents who completed the survey, nearly two-thirds were from the deaf senior high school. Respondents from Accra and Tamale constituted 28% and 11.2% of the survey sample, respectively. More survey participants were selected from the senior high school than from Accra and Tamale because it is the only public deaf senior high school in Ghana. The senior high school admits students from all over the country and has a diverse deaf population in terms of economic and socio-cultural characteristics. As such, the views of students were likely to be more representative of the adolescent deaf population in Ghana. The inclusion of adolescents was particularly important since this age group has been found to have more SRH problems than other segments of the population (National Population Council 2000). Moreover, it was difficult recruiting deaf people with formal education from Tamale because many of the educated had migrated to the southern part of Ghana in search of jobs and better educational opportunities. This is a longstanding problem for Ghanaians generally; the poor conditions in the north have triggered a general migration of people from the north to the south (Berry 1995).

Efforts were made to ensure that females were equally represented since young girls have been found to be more at risk for SRH problems than boys (National Population Council 2000). Of the students recruited from the senior high school, 44 were females, although female students constituted only 93 of the 343 student population. In the study, respondents from Accra and Tamale (aged 22 years and above) are referred to as the “adult population” and those from the deaf senior high school (aged 18-22 years) as “students” or “adolescents” in the balance of reporting.

2.3 Sampling strategy

The sampling procedure used for selecting participants for this study was purposive targeting only persons considered knowledgeable of issues affecting the deaf community.

Focus group participants were recruited from a deaf high school, three deaf churches, and a deaf center. Prospective focus group participants were contacted through text messages and emails. Written scripts of the recruitment announcements were developed in English but were communicated to participants via the GSL at introductory meetings. After contacting prospective participants, arrangements were made to meet the males and the females at two different locations to discuss the focus group procedures, their remuneration, and issues concerning their privacy and confidentiality. Ten out of the 12 contacted agreed to participate. Of the 15 females contacted, 9 agreed to participate. Seven of 10 GNAD executives agreed to participate. After obtaining permission from the SRH unit head, the key informant was recruited.

Recruitment of survey respondents was conducted through announcements that included information about the study, eligibility requirements, and an invitation to volunteers to go through screening and the informed consent process at preset dates and times. On the screening day, those who qualified to participate were asked to sign the informed consent forms. In the deaf high school, verbal permission was sought from the head of the school before recruitment began, and a notice was sent to teachers and students about the study. The students were met during their lunch where additional details about the study and eligibility requirements were provided.

2.4 Reliability and Validity of the Data

As indicated previously, the sampling procedure used for selecting participants was purposive. One of the decisions guiding the use of purposive sampling was to sample participants who had adequate knowledge on SRH issues affecting the deaf community and whose views could best represent the views of the community. Using these participants maximized the utility of the data by minimizing input from respondents lacking any perspectives on the concerns of the community.

Data from the focus groups, key informant interviews, personal observations, and survey were compared and combined. Triangulating data from multiple sources increases the validity of conclusions and often provided a more sophisticated interpretation of the data. For example, the focus groups facilitated in-depth exploration of the contextual nuances that clarified the survey data. As Creswell & Plano Clark (2007) observed, triangulation in mixed methods, which involves obtaining different but complementary data on the same issue, makes it possible for researchers to get a better understanding of the issue being investigated. The main aim of triangulation is to bring together the differing strengths of quantitative and qualitative methods in order to overcome the weaknesses of each of these methods (Creswell & Plano Clark 2007).

2.5 Data collection and analysis

2.5.1 Focus groups

Three focus groups were conducted: the executives group consisting of seven executive members of GNAD, all of whom were males, the adult male group with 10 members, and the adult female group with nine members. Members were selected based on their knowledge of issues that affect the deaf community; they were considered opinion leaders in the deaf community. Those selected include current executives of GNAD, past executives of GNAD, and people serving on committees in the deaf churches.

The focus group guide consisted of open-ended questions and elicited information on participants' views concerning access to SRH services and information. Issues discussed were: sources of information, knowledge of SRH problems in the deaf community, SRH experiences and needs of deaf people, ways to correct problems deaf people encounter when accessing information and services on SRH issues, key related issues in the deaf community, and the role of GNAD in the provision of information and services on SRH issues. Videos tapes and audio recorders were used to recorded proceedings from the focus groups with participants' permission. While the men's and the executives' focus groups were conducted by a male research assistant, the females' focus group was conducted by a female research assistant. The researcher assisted the research assistants when probes were needed for clarification or when the discussions went off-topic. The research assistants and researcher are all native signers and so all the focus groups were conducted in the GSL.

The transcribed data from the three focus groups were analyzed separately in order to differentiate the responses of the three categories of participants: leaders of the deaf community, male participants, and female participants. Focus group videotapes were converted to DVDs using Adobe premiere video software. Both the DVDs and the voice recordings were transcribed to text format. The transcription of the data from the DVDs was done in two steps: "partial" transcription and full transcription.

The first step ("partial" transcription) involved viewing the DVDs from all the focus groups to identify and transcribe into word document concerns that were raised by participants. This was an abridged version of the discussions, consisting of only the group discussion material needed for the development of the survey. Since a verbatim transcription of the DVDs would require significant time and delay the development of the survey, an abbreviated procedure was employed. The second step was a "full" transcription of the videotapes. The full transcription represented the data from the focus groups that were used to complement survey results from the final survey sample.

2.5.2 Survey

Transcripts from the focus groups video and audio, two existing surveys— the 2003 Ghana Demographic and Health Survey (GDHS) and a survey on SRH status among persons with disabilities in Ghana— and two reports on adolescent reproductive health in Ghana were used to develop the survey.

The issues included in the survey were problematic areas drawn from the literature and additional concerns identified in the analysis of the focus groups transcripts: experiences of deaf persons with SRH providers, the role of GNAD in the provision of SRH information and services, and suggestions on how to improve access to information and services on SRH issues.

The final survey explored issues relating to factors influencing visits to SRH centers, organizations providing SRH services, SRH problems among deaf people, sources of information on SRH issues, level of knowledge on STDs and pregnancy, contraception knowledge and use, and importance and satisfaction ratings of SRH issues and services.

Based on advice from the GNAD, all the survey interviews were conducted in groups with the exception of the Tamale participants who were interviewed individually. Each interview session involved gathering participants in a single room, distributing surveys, and providing instructions. Research staff provided assistance and answered questions. Some of the items were written on blackboards and flip charts. Writing items on the blackboards and flip charts made it easier to explain items to all the respondents at the same time without having to go round to assist each respondent who needed help. The survey was conducted by the researcher and his two research assistants in the GSL.

Basic descriptive statistics were used to analyze and summarize the survey data. Responses to the survey items were entered into an SPSS data file, and cross tabulations and chi-square statistics were computed to compare response differences across age and gender groups.

2.6 Ethical issues

The study was approved by the University of Illinois at Chicago's (UIC) Institutional Review Board (IRB). No Institutional Review Board exists in Ghana so no review was done in Ghana but permission was sought from Ghana National Association of the Deaf (GNAD). The GNAD acted as an advisory body, ensuring that both researchers and participants complied with the research ethics. Informed consent was obtained from all participants before recruitment using the GSL. The informed consent process included giving information about the expected duration of focus groups, how much they would be paid, and confirming that participation was completely voluntary and their decision not to participate would not adversely affect their relationship with the investigator or GNAD. In addition, they were assured that they were not obliged to answer all questions, had the right to withdraw from the study anytime, and that their names would not be identified in the data. Focus group volunteers were told that the discussions involved video.

3. Findings

Findings from both focus groups and survey indicated deaf people access information on SRH issues from varied sources. The sections that follow describe the sources and use of information by the deaf community in Ghana.

3.1 Focus groups

Focus group participants claimed that deaf people obtained information on SRH from a variety sources. The male participants identified workshops, books, family planning clinics and centers, internet, workplaces, deaf churches, mosques, and the mass media (newspapers and television broadcasts). A male participant indicated that although deaf people's preferred sources were health professionals, "they [deaf people] are unable to obtain information from this source because of communication barriers caused by lack of sign language interpreters and negative attitude of health professionals, making it hard to access information from health professionals."

The sources of information identified by the female participants were similar to those identified by the men: workplaces, SRH centers, schools, workshops teachers, deaf churches, newspapers, televisions, and deaf centers. As with the male participants, the female participants acknowledged the difficulty many deaf people encounter when accessing information, in particular from health professionals. For example, one of the participants claimed that:

While our low education made it difficult for us to read and understand newspapers but inadequate sign language interpretation services at the health centres also made communication with health professionals very hard. Also, sometimes doctors have no time for us and they write in a language that made it difficult for even an educated deaf person to read and understand.

In the absence of sign language interpreters, utilizing the services of family members and friends seemed to the best alternative for many deaf people. For example, a female participant stated that deaf people often relied on friends and family members such children, spouses, and parents as their sources of information:

> Some deaf women cannot hear information directly from these [television and radio] but family members often inform them. Children and hearing husbands also get deaf women informed when information is made through oral broadcasting. In fact, family members should help their deaf relatives because there are no sign language interpreters.

Some of the executives claimed there were no places in Ghana that provided SRH information and services solely for deaf people, so deaf people were required to obtain SRH information from general public sources: brochures books, family planning clinics and centers, radio, and the mass media. A participant claimed that "but none of these sources are tailored to meet the needs of the deaf population, so there are a lot of challenges for the deaf community when obtaining information from these sources." These challenges, according to some participants, may affect the ability to access information needed to make informed SRH decisions.

3.2 Survey

3.2.1 Sources of information

The current and preferred sources of information on SRH issues of respondents were queried to determine whether there was a discrepancy between current and preferred sources. Table 1 summarizes the respondents' current sources of SRH information and what they identified as their "preferred" sources.

Teachers were the most important sources for all the respondents, followed by family members, while films, videos, and television were the least important sources.

Table 1. Percent citing current and preferred sources Of information by age and gender

Sources of Information	Males				Females			
	Students		Adults		Students		Adults	
	N	%	N	%	N	%	n	%
Current								
School teachers	18	37.5	20	51.3	16	36.4	16	76.2
Family members	10	20.8	14	35.9	15	34.1	10	47.6
Friends	8	16.7	7	17.9	8	18.2	9	42.9
Health professionals	8	16.7	12	30.8	9	20.5	7	33.3
Books/magazines and posters	12	25.0	8	20.5	7	15.9	4	19.0
Films/Videos/TV	8	16.7	3	7.7	5	11.4	4	19.0
Preferred								
School teachers	25	52.1	27	69.2	25	56.8	17	81.0
Family members	13	27.1	24	61.5	20	45.5	13	61.9
Friends	16	33.3	25	64.1	14	31.8	12	57.1
Health professionals	22	45.8	14	35.9	17	38.6	11	52.4
Books/magazines and posters	20	41.7	21	53.8	15	34.1	8	38.1
Films/Videos/TV	17	35.4	19	48.7	12	27.3	6	28.6

Generally speaking, adults utilized information from each of the sources at a higher rate than students and female adults were the most likely to be users of a given source of information, followed by adult males. As with the current sources, teachers and family members were the first two most preferred sources of information. The survey results were consistent with focus group findings that emphasized the role of support from family members as an important strategy for improving access to information on SRH issues.

Although their designated role is to be a source of SRH information, health professionals were not a very popular source. Films, videos and television, which are mostly inaccessible to deaf people in Ghana, were rated more highly than health professionals. The low rating likely reflects concerns expressed in the focus groups about communication barriers with health professionals.

3.2.2 Exposure to information

Respondents were presented with two popular messages on HIV/AIDS that were common in Ghanaian media, and were asked to indicate whether they had heard of these and then explain the meaning of the messages, if they replied in the affirmative. The messages were two slogans for the general public that were aired on the radio, television, and distributed via posters: “Stop AIDS, Love Life” and “Reach Out, Show Compassion.” The items were intended to assess understanding of media messages and the extent to which participants were able to access SRH information from popular media that uses visual methods for disseminating SRH information in Ghana. Table 2 below shows the result of respondents’ familiarity with media message on HIV/AIDS.

A majority of the respondents were familiar with both media messages: almost 60% and 76% recognized, “Reach Out, Have Compassion” and “Stop AIDS, Love Live,” respectively. There were no gender differences in terms of respondents’ exposure to the two messages. However, age was an important variable associated with recognition of both messages, with adults being more familiar with both messages than students: “Stop AIDS, Love Life” (adults 87.8% versus students 66.7%, X^2= 7.856, *df*=2, *p*=024); “Reach Out, Have Compassion” (adults 65.7% versus students 53.1%, X^2= 6.897, *df*=2, *p*=032). Also, more students compared to adults indicated “don’t know” on “Stop AIDS, Love Life” (31.3%students and 6.1% adults) and “Reach Out, Have Compassion” (15.9% students and 4.0% adults).

4. Discussions

The study findings revealed a wide range of sources from which deaf people in Ghana obtained information on SRH issues. Foremost among these were school teachers, family members, health professionals, friends, religious organizations, the media, internet, and SRH organizations and centers. Findings from the GDHS showed that many of these sources were also commonly used by the general population in Ghana to obtain information on SRH matters (GSS et al., 2004). Professionally trained teachers are more likely to have better relationships with and be more accessible to deaf people because their work has exposed them to the values and needs of the deaf community. While the potential importance of families and close friends was often cited, they may not necessarily be the optimal source for accurate and meaningful information for the deaf community. Traditionally, adults are considered the source of authoritative information in Ghana (Nukunya, 1992; Hessburg et al., 2007); in fact, adults traditionally provide SRH information to young adults during puberty rites (Nukunya, 1992; Berry, 1995). But because sex is a sensitive issue in Ghana, many parents find it difficult talking about it with their children (Mensch et al., 1999). Urbanization, western education, and the spread of foreign religions, have transformed the family structure in Ghana, reducing its role in providing guidance (Nukunya, 1992; Berry, 1995; Mensch et al., 1999). Since most deaf children are born to hearing parents with low proficiency in sign language (Job, 2004; Coker, 1998), parental advice may represent a limited source of information.

Table 2. Percent Of Participants Familiar With Media Messages By Age And Gender

Message	Males				Females			
	Students		Adults		Students		Adults	
	n	%	n	%	N	%	N	%
Heard or seen Stop Aids, Love Live	17	56.7	28	82.4	25	75.8	15	71.4
Heard or seen Reach Out, Show Compassion[a]	6	35.3	16	72.7	11	73.3	5	50

[a] across age p<.05
[b] across gender p<.05

Deaf adults may also not be a reliable source of information for their children because of the general low level of knowledge on SRH issues among deaf people (Groce, 2004; Job. 2004; Wilson & Monaghan, 2006). Thus, the finding that families were a preferred source of information for deaf people must be interpreted with caution. Communication barriers, the sensitive nature of the topic, and lack of adequate knowledge on SRH issues on the part of family members limit the effectiveness of these sources and suggest another barrier to quality information for the deaf community.

Health workers are the major sources of professionally provided SRH information in Ghana (GSS et al., 2004). Although their training and knowledge base make them the most accurate and reliable sources of information, the study found that they were not a preferred resource. Similarly, the GDHS found that health workers were not the most utilized source of SRH information for the general population (GSS et al., 2004). The current study indicated underutilization of professionals may even be more pronounced in the deaf community. The low usage is likely due to the fact that the healthcare system is not adapted to meet the needs of the deaf community. For example, the level of English reading skills required to effectively go through a healthcare in Ghana can be very daunting for many deaf people. The study findings that health professionals were unable to communicate effectively with their deaf clients corroborates other studies documenting the negative impact on quality of healthcare related to communication barriers (Mottram, 1999; Margellos-Anast, et al., 2005). For example, Mottram, (1999) indicated that deaf people encounter communication barriers in the healthcare system because health care providers typically cannot communicate with them In addition, healthcare providers often underestimate the difficulties of speech reading and overestimate deaf people's ability to understand written notes (Margellos-Anast et al., 2005).

Use of sign language interpreters would be the preferred means to access SRH information. However, a simple recommendation to provide sign language interpretation services would likely not resolve all access issues. Sign language interpretation represent only one linguistic and communication challenges deaf people encounter in trying to access healthcare. There is a degree of distrust in accuracy of sign language interpretation among deaf people in Ghana because of the nature of the GSL and the level of educational attainment and interpretation skills of many interpreters. While no definitive data exist, professional interpreters are rare in Ghana; in all my years of work with the deaf community, I have not encountered a professionally trained sign language interpreter. In addition, the GSL is not standardized and lacks many medical vocabularies making it difficult for interpreters to provide accurate translations of SRH messages.

Print and electronic media were important sources of SRH information for the deaf community in Ghana. This finding may seem unexpected because the media is generally portrayed as inaccessible to deaf people (Heuttel & Ronstein, 2001). But most educational campaigns on SRH issues in Ghana are conducted primarily through the mass media and educational materials such as posters and broachers (Awusabo-Asare et al., 2006; GSS et al., 2004). Information channeled through the media is appealing, cheap, and can reach a large number of audiences within a short time (Awusabo-Asare et al., 2006; Benafo, 2004).

Also, since the mass media has the potential of reaching many people simultaneously (Awusabo-Asare et al., 2006; Benafo, 2004), it is more likely than other sources of information to reach deaf people, who are dispersed in the population; in fact, TVs are particularly appealing to deaf people because they are visual.

As such, there is immense potential for media based dissemination of SRH information in Ghana. There are, however, important limitations to media based dissemination to the deaf community. Television could be the most accessible source of broadcast information if it were captioned. The print media and internet may be likewise less accessible to the deaf because of their costs and limited English reading skills in the population. This is the paradox identified in the study: while the media were found to be important sources of information on SRH issues for the deaf community, its ultimate impact will be limited by the social and economic circumstances of deaf people. Furthermore, it should be noted that exposure to messages in the media is not the same as comprehending the message. Roberts (2006) observed that the meaning of visual images deaf people receive on TVs that are not captioned may be misplaced and misconstrued. Thus, the survey finding that deaf people's exposure to the two media messages was high does not necessarily imply they understood the messages.

The internet is becoming one of the major sources of information to the deaf community in Ghana. The internet can be a very powerful source of information to the deaf community because of its visual and interactive nature. While low reading skills among deaf people and the cost of internet service might limit access to the community, it can be additional source of SRH information to the deaf community, especially if culturally appropriate communication formats such as captioned videos and pictures are utilized.

4.1.1 Policy Implications of the Study

The study found that deaf people obtain information on SRH from a wide range of sources. This is an advantage that can be utilized to reach the deaf community with deaf-friendly SRH information and services. Variety provides options for reaching a larger number of the deaf population. In addition, using preferred sources of information may increase the likelihood that people will seek out and access SRH information. It is equally important to target and reach out to parents, teachers, and people who work with deaf people to improve their knowledge on SRH issues.

The findings about the lack of understanding about the needs of deaf people among health professional point to the need for programs that will increase interaction between deaf people and health professional and also to encourage health professionals to learn how to communicate directly with their deaf clients. One possibility would be to designate some SRH centers as "specialized" centers capable of serving deaf people. Health care providers at these centers could be given training in sign language and enhanced their skills through frequent interaction with the deaf community. TTY and hotlines could be established at these centers so that deaf people who need assistance can call in for counseling.

Moreover any successful SRH program for deaf community must address the communication concerns of the deaf community. Possible solutions could include having the GNAD appeal to all television stations to adapt their programs with sign language interpretation or by providing subtitles. The GSL could be given more airtime and cover more programs on national television stations; ideally, the GSL could be accorded equal status given to other local languages on national television. Secondly, all SRH education outreach programs for the deaf community should be undertaken in collaboration with GNAD so that GNAD could provide technical assistance and help with the provision of sign language interpreters. Thirdly, more appealing SRH educational programs using accessible communication formats are needed to reach the deaf community. Sexual and reproductive health educational messages could use visual communication formats such as pictures, videos with sign language or subtitles, and activity based learning (e.g., drama) to facilitate understanding of the messages. Fourthly, the GNAD should give greater priority to SRH issues and make SRH an integral component of its advocacy programs. It should lobby for the inclusion of deaf people in national surveys, especially those on SRH issues in order to make their needs visible to policy makers. Finally, since discrimination and social exclusion are major obstacles to achieving quality of life for persons with disabilities (Ministry of Employment and Social Welfare [MESW], 2000), concerted efforts must directed towards the reduction of discrimination and prejudice against deaf people. The GNAD should therefore collaborate with GFD to push for the implementation of provisions in the Ghana Disability Policy that address discrimination against people with disabilities so as to eliminate negative perceptions, prejudice and discrimination against deaf people. This will ensure that deaf people are given equitable attention in national policies and programs.

5. Conclusion

This study investigated the sources of SRH information for the deaf community in Ghana. The aim was to understand the SRH information needs of the deaf population in order to design appropriate measures to direct future action plans and policies on the provision of SRH information and services. The study revealed that although a wide range of sources of information were available to the deaf people in Ghana, many of these sources are unlikely to be the optimal source of accurate and meaningful information. Various factors account for this situation. Foremost among them are language and communication challenges, attitude of health professionals towards deaf people, high literacy level, the nature and volume of information, and the time available for health professionals to interact with their deaf clients.

Findings from the study point to the need for consumer centred programmes in the provision of SRH information. Consumers require that there is just enough quality and reliable information for them to deal with. However, the volumes of information of varying quality that is available to health consumers can make accessing accurate, up-to-date and reliable information on SRH issues challenging, especially when complex medical concepts are involved. Thus, to ensure that health information is understood and utilized by the target group, service providers must be familiar with the context within which the health communication occurs and customize the information to meet the needs of the targeted consumers. This is more so for the deaf community that professes a culture that is different from the hearing population and whose literacy level is low. Therefore, ensuring access to SRH information for the deaf community in Ghana must go beyond gaining physical access; improving comprehension, by simplifying information and presenting it in accessible formats would likely address most of the challenges deaf people encounter when accessing information.

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