

DETERMINING THE SEXUAL AND REPRODUCTIVE HEALTH NEEDS OF DEAF PEOPLE IN GHANA

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Abstract: *This article examines how deaf people in Ghana prioritize their sexual and reproductive health (SRH) needs. The aim is to determine the most pressing SRH needs of the deaf community in Ghana and then propose appropriate measures to make SRH information and services accessible to them. The study was a SRH needs assessment with deaf people in Ghana, which utilized a participatory needs assessment method. A total sample of 179 participants took part in the study: 26 were focus group participants, 152 were survey respondents, and one person acted as a key informant. The study findings indicated that deaf people in Ghana have many SRH challenges, but the most pressing needs were related to barriers associated with communication and attitude of health professionals. To design SRH programmes that are deaf-friendly, there is the need to take into account the linguistic and cultural values of the deaf community.*

Keyword: *Deaf people, Ghana, needs assessment, participatory, reproductive health, sexual health.*

Introduction

Sexual and reproductive health (SRH) is one of the leading causes of ill-health and death worldwide. The international community and governments are making efforts to reduce the negative consequences associated with poor SRH. A major landmark in this direction was at the United Nations sponsored conference on population and development (ICPD) in Cairo in 1994 where a common course of action was taken to find solutions to the problem. The ICPD's Programme of Action called for measures to create awareness about disability issues and advocated for improvement of access to education, training and rehabilitation services for persons with disabilities. Additionally, it called on governments to eradicate all forms of discrimination encountered by persons with disabilities so that they could exercise their sexual and reproductive rights (UNDPI, 1995).

However, negative perceptions about disability and lack of societal understanding of their concerns have stalled efforts at improving access to SRH services. The traditional view of disability as a medical condition or defect perpetuates negative perceptions about the capabilities of person with disabilities. This representation of disability has influenced access to social and economic opportunities for persons with disabilities (Zola, 1994; Slikker, 2009). In terms of sex and sexuality, persons with disabilities have been viewed as not sexually active as a result of their disability and

are often excluded from programmes dealing with sex related health issues (Job, 2004; Prilleltensky, 2004). Thus, while persons with disabilities are likely to have similar or even worse SRH problems than persons without disabilities, they often receive services that are inadequate and in formats that are not accessible (WHO, 2009; Wilson & Monaghan, 2006; Groce, 2004).

Deaf persons have unique linguistic and communication needs and preferences (Mindess, 2006) and likely to have different SRH needs and experiences from the hearing population. According to Jones, Renger, & Firestone (2005), the deaf community is a vulnerable population that is susceptible to numerous health conditions. This is because "the combination of communication barriers, low income, limited education, secondary disabilities, and membership in ethnic minority groups put deaf people at high risk of diverse health outcomes" (p. 3). However, their needs are misunderstood and they are often excluded from SRH programmes. Thus, although there is no comprehensive data on the SRH needs of deaf people in Ghana, they are likely to have more problems and challenges that are unique and demand special attention. Understanding these needs is essential in effectively formulating suitable policies and programmes to address them. This study, therefore, aims at assessing the SRH needs of the deaf community in Ghana in order to identify their priority

concerns for subsequent policy and programmatic interventions.

Conceptualizing Need

Defining need is an essential component of any needs assessment, since different definitions will dictate different needs assessment methods. Need has been conceptualized in various ways: through the comparison of two populations, as a solution to a problem or concern, as a deviation from a norm, and as a discrepancy of two situations (Finlayson, 2006; Witkin & Altschuld, 1995).

The comparative definition of need is based on the comparison of the conditions of one population with a baseline population; the comparison group is considered worse off if it has more problems or concerns than the baseline group (Finlayson, 2006; Witkin & Altschuld, 1995). With this definition, deaf people in Ghana would be described as having SRH needs if the hearing population received more SRH services than the deaf population. However, the fact that one group receives more of something than another group does not necessarily imply that needs are met. Also, this conceptualization of need assumes the baseline population wants the services that are being provided and the services are at an adequate level (Finlayson, 2006).

When need is conceptualized as a solution, needs are defined in terms of what is required to address a discrepancy or a gap (Witkin & Altschuld, 1995). For example, antenatal care, trained birth attendants, and prevention and treatment of STDs are services (solutions) to address. The lack of any of these services does not necessarily imply there is a need.

With the normative approach, need is defined from the viewpoint of professionals or experts. In this conceptualization of need, a need is said to exist for an individual or group if there is a discrepancy between their current status and the desired standard (Finlayson, 2006). Conceptualizing need normatively can be problematic if it does not take into consideration how individuals or communities perceive their needs (Finlayson, 2006). For example, while a communication therapist may see problems deaf people encounter as a product of their hearing loss, deaf people may see it as a product of social and cultural barriers.

Need defined in terms of a gap refers to a

discrepancy between the present condition or state as compared to a more desirable state (Gilmore & Campbell, 2005; Witkin & Altschuld, 1995; Finlayson, 2006). In the case of SRH, the “present state” would be the current SRH situation, for example, incidence of HIV/AIDS and teenage pregnancies. The desirable state is the preferred or an “ideal” state, for example, a reduction or absence of SRH problems. The gap between the two conditions is need, which is depicted as a problem or concern that must be resolved. The present study utilized the gap definition of need and focused on the perceived gap between the SRH information and services deaf people were receiving and what they perceived to be desirable. This definition is better suited for this study than other definitions because it takes into account issues that the community perceives as relevant to them. It is also consistent with the needs assessment method used in this study.

Methods

Study design

The study was an exploratory SRH needs assessment targeting only deaf people who were fluent in the Ghanaian Sign Language (GSL) and resident 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. 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 needs assessment procedures

Participants

The total study sample was 179 participants, consisting of 26 focus group participants, 152 survey respondents, and one key informant. The communities from which participants were recruited were Tamale, a city in the Northern Zone and Accra in the Southern Zone of Ghana (see Table 1 below for distribution of participants). The intent in selecting these communities was to sample respondents with diverse characteristics so that I could represent views from people with

different perspectives on the topic. Tamale and Accra represent the Northern and Southern sectors of the country, which reflect important differences in culture and socio-economic development.

Table 1. Distribution of study participants by community

Community	Male		Females	
	Students n=48	Adults n=39	Students N=44	Adults n=21
School	48		44	
Accra		28		16
Tamale	-	11	-	5

The Northern sector is generally poor and characterized by poorly developed infrastructure and harsh climatic conditions (National Population Council [NPC], 2000; Berry, 1995). Specific locations in these cities where participants were recruited from are a deaf senior high school, three deaf churches, and a deaf center. These locations were targeted in order to increase the likelihood of identifying deaf people who had formal education and knowledge of the GSL.

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- users of the GSL 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.

More than two-thirds (136) of the participants were chosen from Accra. This is because majority (92) of the survey participants was recruited from the senior high school, which is located in Accra. The senior high school is the only 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, views from students in the senior high school were likely to be more representative of the adolescent deaf population in Ghana. The inclusion of adolescents was important since this age group has been found to have more SRH problems than other segments of the population (NPC, 1994). 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). In the study, all respondents from the deaf school (aged 18-22 years) were referred to as “students” or “adolescents” and all others (aged 22 years and above) as the “adult population” in the balance of reporting.

Sampling Technique

A purposive sampling procedure was used for selecting all participants for the study. Recruitment 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 taken through informed consent process before they were recruited. 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.

Data collection

Focus groups

Three focus groups were conducted: (1) the executives group consisting of seven executive members of Ghana National Association of the Deaf (GNAD), all of whom were males, (2) the adult male group with 10 members, and (3) the adult female group with nine members. The focus group guide was organized around the research questions, and consisted of open-ended questions that elicited information on participants’ views concerning access to SRH services and information. Issues covered during the focus groups were: (1) sources of information, (2) knowledge of SRH problems in the deaf community, (3) SRH experiences and needs of deaf people, (4) ways to correct problems deaf people encounter when accessing information and services on SRH issues, (5) key issues in the deaf community, and (6) the role of GNAD in the provision of information and services on SRH issues.

Focus group data analysis

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 to modify 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. I initially viewed the videotapes with my two research assistants to identify the major concerns raised during the focus groups. We then compared these concerns with transcripts from the audio recording to ensure that everything was captured. To decrease the chances that materials were omitted, we met six participants (two from each focus group) to discuss and validate the concerns identified before developing the survey. After meeting and validating the concerns with the participants, a final list of concerns was generated and organized around the focus group questions. These data and materials from other sources were the bases for the major subsections of the survey instrument.

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 the results from the final survey sample. To ensure accurate transcribing, two deaf persons who were fluent in both English and GSL were recruited. Each of the two deaf adults was paired with one of my research assistants to do the transcribing. Each pair viewed the tapes several times and then glossed (a word to word translation) the GSL. The research assistant then translated the gloss into English. The scripts from the two research assistants were then compared and minor differences in the translations from the GSL to English reconciled. The final transcripts were read through to identify broad themes from each focus group. Supporting quotes from the transcripts were identified and linked to their respective themes. The broad issues formed the

subsections for the focus groups data. The focus groups therefore identify SRH issues that were important for the development of the quantitative instrument, which was needed to determine the nature and extent of needs within the deaf community.

Developing the survey

Transcripts from the focus groups video and audio, two existing surveys (2003 Ghana demographic and Health Survey and a survey on SRH status among persons with disabilities in Ghana) were used to finalize the survey. There were two parts to the survey. The first part included demographic questions and solicited general information concerning deaf people’s level of knowledge about SRH issues, factors influencing visits to SRH centers, sources of information on SRH issues, and use of contraceptives.

The second part of the survey focused on assessment of the perceived importance of specific SRH issues. There were two items for each issue. One question asked about the importance of the issue and the second queried how satisfied the respondent was with the issue. Both questions were rated by the respondents on a 3 point Likert-type scale where 1 represented “very important” or “very satisfied” and a 3 represented “not important” or “not satisfied” (Figure 1). Thus, respondents assigned both an importance and satisfaction score for each issue.

Figure 1. Sample Structure of survey

1.	a. I have access to education on sexual and reproductive health	01. Very important <input type="checkbox"/>
		02. Somewhat important <input type="checkbox"/>
		03. Not important <input type="checkbox"/>
	b. How satisfied are you with current education you receive on sexual and reproductive health?	01. Very satisfied <input type="checkbox"/>
		02. Somewhat satisfied <input type="checkbox"/>
		03. Not satisfied <input type="checkbox"/>
2.	a. There are always sign language interpreters at sexual and reproductive health centers to interpret sexual and reproductive health information for me (and other deaf people).	01. Very important <input type="checkbox"/>
		02. Somewhat important <input type="checkbox"/>
		03. Not important <input type="checkbox"/>
	b. How satisfied are you with the interpretation services at sexual and reproductive health centers?	01. Very satisfied <input type="checkbox"/>
		02. Somewhat satisfied <input type="checkbox"/>
		03. Not satisfied <input type="checkbox"/>
3.	a. Interpreters are able to interpret sexual and reproductive health information for me	01. Very important <input type="checkbox"/>

1.	a. I have access to education on sexual and reproductive health	
	01. Very important	<input type="checkbox"/>
	02. Somewhat important	<input type="checkbox"/>
	03. Not important	<input type="checkbox"/>
	02. Somewhat important	<input type="checkbox"/>
	03. Not important	<input type="checkbox"/>
	b. How satisfied are you with the way interpreters interpret sexual and reproductive health information for you?	
	01. Very satisfied	<input type="checkbox"/>
	02. Somewhat satisfied	<input type="checkbox"/>
	03. Not satisfied	<input type="checkbox"/>

The final survey had 46 main questions that sought information on the: demographic characteristics of participants, factors influencing visits to SRH centers, organizations providing SRH services, SRH problems, 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. Each survey took approximately 90 minutes to complete.

Survey data analysis

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. A differential score, representing the need index (N), was calculated for each of the importance and satisfaction items from the second part of the survey. The index is a score which is intended to represent aggregate community needs in terms of the importance of an issue relative to satisfaction with it. The need index (N) is computed as the difference between the proportion of all respondents who indicated that an issue was very important to them and the proportion of respondents who indicated that they were very satisfied with services they were receiving on the issue. For example, if X represents the sample proportion identifying an issue as “very important” and the proportion of all survey respondents who said they were satisfied with the given service issue is Y, then the need index (N) = X-Y.

The difference represents an issue that can be described as met or unmet need, depending on the magnitude of score. The scores range from +100, indicating very high need to negative 100, indicating very low need.

The scores were used to classify each of the issues. Issues which participants rated as very important and very satisfied were considered community “strengths” while items that were rated very important but low in satisfaction were considered needs or concerns and needed further discussion or action. Finally, relationships between the basic demographic groups of gender, age, and ratings were explored in order to evaluate any systematic differences in ratings across groups. Cross tabulations for importance and satisfaction ratings were conducted for each item and chi-square statistics computed.

Results

Demographics of survey respondents

Demographic characteristics are important variables for analyzing SRH issues because they have been shown to be highly associated with SRH behavior (Ghana Statistical Service, Noguchi Memorial Institute for Medical Research, & ORCMacro, 2004). Although gender, age, marital status, ethnicity, religion, residence, educational background, and onset of deafness are relevant to the analysis of SRH behavior, gender and age were chosen as the primary basis for analyzing and comparing participants’ responses. This is because there was very little variation in respondents’ educational attainment and marital status, and there was significant under-representation in demographic groupings defined by religion, ethnicity, residence, and onset of deafness in the data.

Nevertheless, age and gender are often the most critical demographic considerations in policy and programme interventions in Ghana. For example, the adolescent reproductive health and the HIV/AIDS and STI policies in Ghana used both age and gender as important variables for policy and programmatic interventions. This is not surprising since age and gender very much predict vulnerability for SRH problems (NPC, 1994). Table 2 provides a summary of survey respondents’ demographic information

Table 2. Demographic characteristics of participants by age and gender

Demographic	Males				Females			
	Students		Adults		Students		Adults	
	N	%	N	%	N	%	n	%
Age								
Less than 18	-	-	-	-	-	-	-	-
18 – 25	3	10	1	47	2	10	4	19.0
	3	0.0	1	.8	7	0.0		
26 – 35	-	-	8	34	-	-	6	28.6
				.8				
36 – 45	-	-	1	4	-	-	4	19.0
				3				
46-55	-	-	2	8	-	-	5	23.8
				7				
56 above	-	-	1	4	-	-	2	9.5
				3				
Marital Status								
Married	-	-	1	41	-	-	8	38.1
				.6				
Unmarried	4	10	2	53	4	10	1	61.9
	8	0.0	1	.8	4	0.0	3	
Divorced	-	-	2	6	-	-	-	-
				1				
Separated	-	-	-	-	-	-	-	-
Ethnicity								
Akan	3	68	7	18	2	65	4	19.0
	3	8		.0	9	9		
Ewe	7	14	7	18	6	13	2	9.5
		6		.0		6		
Ga-Adangbe	2	4.2	2	5	3	6.8	2	9.5
				0				
Guan	4	8.3	6	15	-	-	7	33.3
				.4				
Mole-Dagbani	-	-	1	25	4	9.1	1	4.8
				.6				
Other	2	4.2	7	18	2	4.5	5	23.8
				.0				
Religion								
Christians	4	93	3	82	3	81	1	81.0
	5	8	2	.1	6	8	7	0
Moslems	1	2.1	7	17	6	13	4	19.0
				.9		6		
Traditional	1	2.1	-	-	-	-	0	0.0
Other	1	2.1	-	-	2	4.5	0	0.0
Educational Level								
Senior High School	4	10	1	48	4	10	8	42.1
	8	0.0	8	.6	4	0.0		
Technical	-	-	4	10	-	-	2	9.5
				.8				
University/Polytechnic/Diploma	-	-	-	-	-	-	0	0.0
Other	-	-	1	40	-	-	1	48.4
				.5				
Age of onset of deafness								
Less than 18	3	75	2	82	3	92	1	81.3
	1	6	4	.8	8	7	3	
18 – 25	1	24	1	3	3	7.3	2	12.5
	0	4		4				
26 – 35	-	-	1	3	-	-	1	6.3
				4				
36 – 45	-	-	1	3	-	-	0	0.0
				4				
46 – 55	-	-	1	3	-	-	0	0.0
				4				
56 and above	-	-	1	3	-	-	0	0.0
				4				

As shown in the table, there were more male respondents than females, and more students than adults. Fewer female respondents were successfully recruited due to the difficulty in identifying deaf females with formal educations. This reflects the fact that deaf females are far less likely to receive a formal education in Ghana. Moreover, a majority (60.5%) of the 152 survey respondents were recruited from the senior high school, which accounts for the high proportion of respondents with a senior high school education, the relative youth of the sample (72.1% younger than 26 years) and large percentage of persons who reported being unmarried.

Focus groups

Findings from the focus groups indicated that a wide range of factors were inhibiting access to SRH information and services to deaf people in Ghana. The major ones were communication barriers, lack of privacy, distrust of sign language interpreters, high illiteracy among deaf people, ignorance of deaf people's needs by health professionals, negative attitude towards deaf people, and limited time during consultation with health providers. However, communication barriers arising from inadequate sign language interpretation services appeared to be the most significant concern among all the groups. These issues were further explored via the survey.

Survey

The survey findings indicated that the three most pressing issues for the deaf community based on the value of the need indices were: access to SRH education, availability of interpreters at SRH centers, and privacy from SRH workers. Respect from SRH workers was the least pressing issue. However, there were divergent views among study participants in terms of the importance of SRH issues to the deaf community. The table below summarizes the need index calculations which show how SRH issues were prioritized.

Table 3. Calculated concerns report need indices by gender and age

Importance and Satisfaction Statements	Males		Females		Total
	Students	Adults	Students	Adults	
Access to SRH education ^a	22.8	43.3	35.7	70.0	38.3
Availability of interpreters at centers ^a	19.0	56.1	20.5	60.0	34.7
Privacy from SRH workers ^a	13.9	43.0	22.0	55.0	29.6
Being able to communicate with SRH workers ^a	17.4	42.9	11.6	36.8	24.8
Care and guidance from my parents ^a	13.1	47.9	15.3	20.0	23.9
More time to explain SRH issues ^a	16.7	48.7	9.5	20.0	23.4
Simple and accessible messages ^a	12.8	47.8	2.4	40.0	22.6
Well-trained interpreters at SRH centers ^a	14.6	40.6	4.7	40.0	21.9
Sexual and reproductive health workers being friendly ^a	5.0	38.2	14.6	42.1	21.7
Counseling on SRH issues ^a	13.2	37.9	9.3	15.0	18.8
Help from Ghana National Association of the Deaf	2.4	45.1	14.3	2.6	16.9
Support from family members ^a	-1	46.0	2.4	25.0	16.0
Support from teachers	13.5	13.5	23.8	0.0	14.6
Know how to use contraceptives	2.4	18.4	17.5	10.6	13.7
Support from peers/friends ^a	4.9	29.7	13.4	-5.0	12.6
Understand SRH messages on posters and magazines ^a	-9.8	23.5	7.0	18.7	7.9
Respect from SRH workers	-16.3	17.6	6.2	10.0	2.8

^a across age $p < .05$

^b across gender $p < .05$

As indicated in Table 3, many of the issues identified as high need were also important to the focus group participants, which

suggest the general value of these issues to the deaf community. There were age and gender differences in the ranking (that is, prioritizing items in order of value) of needs across issues, with access to SRH education being rated as the highest need for students and availability of sign language interpreters the highest for adults. Moreover, adults generally reported issues with higher needs indices than students; adults had need indices ranging between 52.7 and 8.8 while the need indices for the students ranged between 31.5 and -0.5. Two possible reasons can be assigned to these differences. First, it was likely that students perceived themselves as having fewer SRH concerns than adults. Secondly, it may be that students did not deem some of the issues pressing, and as a result, did not rate them “very important.”

With respect to gender, females generally reported higher needs than males, with adult females reporting the highest needs among the respondents (need indices ranged between 70 and -5) and male students reporting the least needs (need indices ranged between 22.8 and -16.2). With the exception of respect from SRH workers, support from teachers, support from GNAD, and use of contraceptives, there were significant age differences on all items, with adults being more likely to rate issues higher than students. This suggests adults perceiving greater needs than students, even though the literature suggests greater risks among youth. This should be a point of concern since it has been observed that adolescents, especially females, have more SRH problems than adults (NPC, 2000).

Discussions

This study identified and prioritized the SRH needs of deaf people in Ghana using a participatory needs assessment method. The use of participatory method provided an opportunity for deaf participants to assess their own needs, identify issues they considered most relevant to them, and then prioritized these issues.

The findings that there were gaps in the SRH information and services deaf people were receiving is not unexpected. This gap reflects the general inaccessibility of mainstreams information to deaf people. Studies have shown that deaf people are less likely to have access to services from commonly utilized sources, but their distinctive and complex needs and concerns are often not visible, misunderstood

and/or ignored resulting in negative health impacts (Mprah, 2011; Wilson & Monaghan, 2006). This situation is compounded by the low literacy rate and reading skills among deaf people which prevents access to print materials. Thus, it is not surprising that the most pressing SRH issues identified in the study were those related to access to information.

Since deaf people encounter communication barriers, it suggests that having qualified sign language interpreters would alleviate most of their communication challenges. However, there are limitations to the use of sign language interpretation services, especially in Ghana. The level of educational attainment of sign language interpreters, the interpretation skills of many interpreters, lack of medical vocabulary in the GSL, and issues relating to privacy arising from the presence of an interpreter, are issues that would affect the quality of information received via sign language interpretation services. Thus, the communication needs of deaf people are more complex than just the absence of interpreters (Mprah, 2011). Consequently, simply providing sign language interpretation services would likely not resolve all issues regarding access to SRH information to deaf people.

The finding suggesting that adolescents have fewer SRH needs than adults is inconsistent with other findings with the general population in Ghana. Studies conducted on the general population showed that adolescents have many SRH needs — they generally lack basic knowledge and have many challenges with respect to SRH issues (NPC, 2000; Hessburg et al., 2007; Awusabo-Asare et al. 2006). However, since participants in these previous studies were hearing persons, comparing findings from these studies with the currently study should be done with caution.

Nevertheless, deaf adolescents would likely have more problems than their hearing counterparts. Although there are no comparative studies on the two populations in Ghana, studies elsewhere are in agreement with the fact that young deaf people are less likely to be knowledgeable on SRH issues than their hearing counterparts. For example, Heuttel & Ronstein (2001) observed that the level of knowledge on HIV/AIDS among American college students who are deaf was lower than their hearing counterparts and blamed the situation on deaf students' reliance on informal sources such as families and friends for their

information. Similarly, in a study in Nigeria, Groce, Yousafzai, & Maas (2007) found that deaf adolescents were less likely to have up-to-date information on HIV/AIDS and were also less likely to be knowledgeable on HIV/AIDS issues than hearing adolescents. However, more studies between the deaf and hearing populations in Ghana are required to better understand their respective SRH behaviour.

Limitations of the study

There are a number of issues that should be considered when interpreting the findings of the study. Firstly, the approach used in the study is based on the gap definition of need, and works on the assumption that people are aware of their needs and desire solutions for these needs. In other words, it requires that members of the community are able to visualize a gap between their present state and the desired state, which may be difficult for members of communities if they do not feel they have a need. This is particularly so for SRH issues, which are characterized by many misconceptions, particularly among deaf people (Mprah, 2011).

The second major issue is the study's reliance on Likert scale questions. Items in the questionnaire were based on Likert scale questions, but it has been observed that confusion often arises if respondents are presented with odd number of responses from which to make their choices (Achyar, 2008; Chimi & Russell, 2009). According Achyar (2008), "Midpoint neutral statement of neither 'agree nor disagree' may be confused with 'don't know' or 'not available' (p.1). Chimi & Russell (2009) also observed that middle points scales presume neutrality but "To be 'neutral' presupposes that the respondent knows about the subject of study, has considered it, and finds that his or her response falls roughly center between the two endpoints" (p. 3). Thus, although a midpoint response could be described as neutral, there are situations under which choosing the centre category cannot be described as neutral (Chimi & Russell, 2009). For instance, the subject matter may be of little importance to the respondents. Respondents may be indifferent to the issue rather than neutral; that is, they had not yet made up their minds about which response fits their situation (Chimi & Russell, 2009).

Deaf people, in particular, have been found to be unfamiliar with Likert scale items

that have categories such as excellent, very good, good, poor, and fair (Margellos-Anast et al, 2005). Margellos-Anast et al. (2005) noted that deaf respondents have difficulty placing themselves in categories such as very good versus good in part because deaf people are not familiar with research in general and with such scales in particular. Given the numerous misconceptions about SRH issues, the time available to (deaf) respondents to make decisions about the responses, the limited English reading skills of respondents, and respondents' level of knowledge on SRH issues, it is possible that some may have made their selections without much consideration, rating some issues as "somewhat important" and "somewhat satisfied." Perhaps, some respondents would have chosen "Not applicable" if the option was available and used the mid-point response instead. These reliability and validity problems may have compromised the need indices and may have accounted for the low need indices for some issues.

Thirdly, there were possible methodological problems in interpreting the need indices. As stated earlier, the need index for each issue was calculated by finding the difference between the proportion of respondents who rated the issue "very important" and the proportion who rated themselves "very satisfied" with the issue. Excluded from the need index was the proportion of respondents who rated the issue "somewhat important" or their level of satisfaction "somewhat satisfied." In cases where there is a large proportion of these intermediate ratings, the value of the resulting need index may distort the importance of the issue to the community. The effect seem to explain why students had lower need indices compared to adults which suggest students had lower needs than adults although the literature indicates otherwise.

In spite of these weaknesses, findings from the study provide some thoughts on the need to target specific groups such as deaf people, young people and females in SRH programmes. The study underscores the importance of knowing and understanding the unique needs of sub-groups within the general population and how these needs are prioritized when designing policies and programmes. Efforts should therefore be made to understand the unique concerns and needs of the deaf community, and also, its composition so that

culturally relevant SRH programmes can be designed for them.

Conclusion

To effectively address the SRH concerns of people with disabilities, and specifically deaf people, we must endeavour to understand their unique needs, how these needs are prioritized, and make them visible to policy makers. This requires gathering comprehensive and relevant data on their needs. A participatory needs assessment is one of the most useful methods in this regard as it ensures that the needs that are identified are relevant to the community. The findings from the study provide insights and understanding into some of the factors that influence the SRH service seeking behavior of deaf people in Ghana and corroborated findings from the few studies that have been conducted on the subject among the disabled population in Ghana. However, there is the need for a comparative study on deaf and hearing people to understand the SRH behavior of the two populations.

ACKNOWLEDGEMENT

I would like to thank the National Association of the Deaf, and the entire deaf community in Ghana. The financial assistance by the International Fellowships Programme and the Department of Disability Human Development, University of Illinois at Chicago, USA contributed significantly to the completion of this project. My sincere thanks also go to my doctoral committee.

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