

Barriers to Effective Health Education in Deaf K-12 Schools

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ABSTRACT

Purpose. The Deaf community is an ethnolinguistic minority whose lack of access to mainstream health information limits health literacy. This study describes barriers to teaching high school health education in US K-12 Deaf schools. **Methods.** An online survey with English and American Sign Language (ASL)

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instructions were emailed to administrators at sixty schools for the Deaf. Descriptive statistics were conducted to describe study sample, health class curriculum topics and perceived student knowledge of said topics. All statistical analyses were completed using SAS version 9.4 (SAS Institute, Inc., Cary, NC). **Results.** Twenty-five schools (42%) anonymously responded. Ninety-two percent of schools reported a lack of resources for teaching health education. Only 12% of schools reported having a nationally certified health teacher. Student knowledge was perceived to be poor to satisfactory regarding mental health, self-advocacy, and family medical history. **Conclusions.** This study found the most notable barriers to health education were difficulty hiring qualified health teachers and severe lack of resources for teaching. The subjects with the greatest lack of resources were also among topics in which students had the poorest perceived knowledge. **Recommendations.** Additional opportunities for future research could include a comparison to hearing schools in the US, assessing health care knowledge among deaf students in mainstream schools, or completing a similar survey to compare results to comparable schools for the Deaf outside of the United States. Additionally, future research could assess actual student knowledge of the subjects that were queried and compare to existing health disparities in the community.

Keywords: barriers, deaf, education, health, disparity, curriculum

INTRODUCTION

In the United States (US), the culturally Deaf (represented with a capital [D]) community is both a linguistic and cultural minority shown to face challenges in achieving health literacy, defined as the ability of individuals to obtain, process, and understand basic health information (Frank, 2017). Culturally Deaf community members use American Sign Language (ASL) as their primary method of communication, which has a unique syntax and grammar different from written English (Hall et al., 2015). Nationally, the English literacy level in the Deaf community between 4th-5th grade (Freel et al., 2011). While the Joint Commission on Accreditation of Healthcare Organizations recommends limiting patient education materials to a 5th grade level, materials are often written above the 8th grade level (Cordero, 2011; Davis & Wolf, 2004; Stossel et al., 2012). Consequently, many Deaf people may have difficulty understanding complex written material in English due to a lower English literacy.

Exposure to health information and terminology and the ability to comprehend it through adequate English literacy is imperative to understanding written health

information (Belcastro & Ramsaroop-Hansen, 2017). Much of a child's exposure to health information comes from their parents (Walker, 2001). Because many Deaf children grow up in hearing families (approximately 90-95%) that do not know ASL, there is less vertical transmission of information from parent to child since they are often unable to participate in or listen to important conversations regarding family medical histories or the impact of current community health problems (e.g., pandemics, public health problems, etc.) (Hauser et al., 2010; Steinberg et al., 2006). This phenomenon is known as the dinner table syndrome (Hauser et al., 2010). Often, Deaf children do not have the opportunity to learn passively through overhearing conversations happening around them leaving them with fund of knowledge (defined as the knowledge that people's life experiences give them) deficits in comparison to hearing peers (Hall et al., 2018).

Schools for the Deaf are one of the few places that create an immersive signing environment where Deaf students have full access to communication, including health information, in a culturally sensitive way (i.e. providing resources easily understood by Deaf students or arranging tables in such a

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way that allows students to see each other) (Hoffman & Andrews, 2016; Leigh et al., 2016). These schools are often state-funded boarding schools where students can live on-campus in dormitories. Besides formal classroom instruction in ASL (by Deaf or ASL-fluent hearing teachers), the students have the benefit of dormitory life which introduces them to the content of Deaf culture, immerses them in the social life of Deaf people, and allows for the preservation and propagation of Deaf culture for future generations (Padden & Humphries, 1988). However, these schools also face unique challenges in educating their students which are often not encountered in hearing schools. The previously described dinner table syndrome often leads to fund of knowledge gaps in the Deaf community, especially regarding health literacy. This pattern has been demonstrated in Deaf adolescents in several studies, with some specifically citing poor knowledge of HIV and cardiovascular health (Goldstein et al., 2010; Gur et al., 2020; Smith et al., 2012; Smith & Samar, 2016). Additionally, this trend continues into adulthood as numerous studies have demonstrated poor health literacy among Deaf adults (M. McKee et al., 2015; McKee et al., 2011). There are also health disparities that have been well documented in the Deaf community, including higher rates of intimate partner violence (IPV) and mental health challenges, and increased emergency department utilization and testing (Anderson & Leigh, 2011; Fellingner et al., 2012; M. M. McKee et al., 2015; Pollard et al., 2014; Rotoli et al., 2020).

Several previous international studies examined various aspects of teaching health to Deaf students, although limited studies were conducted in the United States. The most recent national survey looking at the state of health education in residential schools for the Deaf was published in 1995 (Clark, 1995). This study reported that 22 out

of 25 participating schools required health education as part of the curriculum, with a mean instruction time of 15 minutes daily. Health curricula was found to be lacking in several subjects, most notably personal hygiene and safety. Most schools did not have a certified health teacher and reported a lack of guidelines for teaching health to their Deaf students (Clark, 1995). In general, Deaf ASL users report a greater comprehension of healthcare information when it is presented in ASL (Kuenburg et al., 2016). When health resources were developed in conjunction with the Deaf community to ensure materials are culturally-appropriate to account for fund of knowledge gaps, reported comprehension was higher (Mathos & Pollard, 2016). Specifically, studies have demonstrated higher understanding of health materials about cancer prevention and chronic disease management in Deaf adults when presented in a visual format or using ASL (Cumberland et al., 2018; Engelberg et al., 2019; Harry et al., 2012; Haverkamp et al., 2020; Hickey et al., 2013; Jensen et al., 2013; Yao et al., 2012; Zazove et al., 2012). Studies that have developed visual resources in ASL specifically targeting Deaf students have found higher comprehension of material about oral hygiene, tobacco use, and cardiopulmonary resuscitation (Arunakul et al., 2012; Berman et al., 2011; Galindo-Neto et al., 2019).

PURPOSE

The purpose of this study is to examine the multifaceted nature of the barriers to delivering effective health education in Deaf K-12 schools, where education is directly provided in ASL. To do this, this study sought to describe the demographic information of health educators in schools for the Deaf, to identify the health topics that are taught (or missing) in schools for the Deaf, and to assess the availability of Deaf-friendly resources for teaching those topics.

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METHODS

In order to engage the Deaf community, guide the purpose of the study, develop content themes for the survey, and ascertain the status of health education curriculum, one of the researchers spent four weeks in a school for the Deaf. The time was spent observing health education classes and conducting semi-structured interviews with all faculty in the school who taught health class at any point in the past four years. While the researcher guided the interviews, the goal was to allow faculty members to describe the challenges faced in teaching health in the school and what they perceived to be their student's health information knowledge deficits. Detailed notes were taken throughout the interviews and reviewed by the research team, composed of hearing and Deaf content experts, physicians, and epidemiologists. The team collectively identified themes to inform the online survey development. Themes can be found in Table 1.

Instruments

The main survey instrument (see Figure 1) consisted of a thirteen-item, multiple choice, online survey. Themes that were extrapolated from the qualitative interviews were used to inform survey questions. For example, questions were asked about the number of health teachers that schools had in the past five years, the topics that were taught in their schools, and the topics that were most in need of additional resources. In order to further inform the health topics and survey design, researchers used the Centers for Disease Control (CDC) survey on health education in hearing school (Brener et al., 2017). While no nationally mandated health curriculum has been published in the United States, this bi-annual survey is distributed to hearing public schools across the United States to assess the state of health education in the country (Brener et al., 2017). From the CDC survey, certain relevant topics

were condensed into a single question (i.e. condoms, STIs, pregnancy prevention were all asked about as 'sexual health'). The survey was developed through an iterative process with the research team and local experts (Deaf community members and advocates). It was then pre-tested with a local non-profit Deaf health advocacy group to ensure the survey was understandable and at an appropriate reading level. Subsequently, the survey was revised and pilot tested to assess subject time burden, enhance reliability, and ensure applicability. We did not formally measure reliability or validity. Previous literature has demonstrated that written surveys have been validated by the Deaf community by creating questions in conjunction with community members and reviewing questions with Deaf community members to ensure they are easily understandable (Kushalnagar et al., 2017).

The final survey (written at a Flesch-Kincaid reading level of 6.7) was sent to a listserv of administrators at sixty Certified K-12 Schools for the Deaf across the United States. This sample included every school that is a member of the Conference of Educational Administrators of Schools and Programs for the Deaf, the largest organization in the US, which accredits schools for the Deaf that meet a rigorous set of standards and a commitment to continual school improvement (Conference of Educational Administrators of Schools and Programs for the Deaf, 2020). A summary of the study and instructions for the survey were provided in written English and in an ASL video for improved comprehension of the study. Three follow-up emails were sent to encourage survey completion at 4, 8, and 12 weeks after the initial email. In each email, the researcher's contact information was given and participants were encouraged to ask questions via email or videophone.

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Participants

The survey was to be completed by said administrator or the person responsible for health class curriculum development at the school. Inclusion criteria included: (1) being currently employed at a K-12 United States School for Deaf children, (2) currently serving as the school principal or the curriculum development professional responsible for the health class curriculum, and (3) having been an administrator at the school for at least one additional year prior to the year surveyed. Exclusion criteria included: (1) any teaching assistant who is not the primary classroom teacher, (2) any administrator who does not have one or more years of experience working in the school, (3) any administrator not responsible for the high school health curriculum, (4) any Deaf K-12 school outside of the United States, and (5) a Deaf school that does not serve children in grades K-12. This study focused on high school health education as the 2016 CDC School Health Profiles report indicates that schools are more likely to have content and time requirements for health education at the high school level (CDC, 2016).

Procedure

The survey was sent via email to the previously described list-serve of school administrators and superintendents. Consent for participation in the study was described in the email and implied with participation. The survey was hosted on REDCap, a secure online server (Harris et al., 2009). All responses were anonymous. Three follow-up emails were sent to encourage participation. No financial incentive was provided to participants.

Data Analysis

Descriptive statistics were conducted to describe study sample, health class curriculum topics and perceived student knowledge of said topics. All statistical analyses were completed using SAS version 9.4 (SAS Institute, Inc., Cary, NC). This was

reviewed by the University of Rochester Research Subjects Review Board and ethics committee and given exempt status based on the review board's guidelines.

RESULTS

Surveys were distributed to a total of 60 schools for the Deaf across the United States. Respondents from 25/60 schools participated (42% response rate), and 20/25 completed all questions on the survey (80%). Schools were represented from all geographic regions except for the Southeastern United States. Most respondents reported having been in their current educational or administrative role for over ten years (45.8%) or less than 4 years (29.2%).

Only 12% of the responding schools had a nationally certified health teacher at their institution. The remaining schools (88% of responding schools) had health education instructed by either a certified general deaf education teacher, a teacher certified to instruct Physical Education, or a K-12 teacher certified in another area outside of health education. Almost 90% of responding institutions indicated that they have had 1 to 3 different health education instructors within the past 10 years. Health instruction most commonly occurred during the first or second year of high school (9th grade, 92%; 10th grade, 80%). Almost half (48%) of institutions reported giving health education instruction every year of high school. See Table 2.

Less than 60% of participating schools reported education on Family History in their health curriculum. Education on IPV was reported in less than 72% of participating schools and Mental Health education was present in less than 78% of participating schools. However, Prevention of Substance Abuse and Healthy Lifestyle were taught in 100% of the responding schools (n=22). See Table 3.

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Topics that were deemed most important to receive additional classroom time and resources were Mental Health (78% additional time, 76% additional resources), IPV (73.9%, 60%), and Internet safety (70%, 60%). See Table 4.

In Table 5, respondents rated their students' knowledge on nine health education topics. They could select a rating from four options: poor, satisfactory, good, or excellent. Participants reported "poor" student knowledge on topics regarding Self-Advocacy (36%), Mental Health (46%), and Family History (48%). The majority of responses to all categories ranked perceived student knowledge as either "poor" or "satisfactory." See Table 5.

DISCUSSION

The results of this study highlight several potential barriers to effective health education in schools for the Deaf. The first is related to the retention and hiring of qualified health teachers. The schools in our study had a high turnover rate of health teachers. One-third of schools reported having one health teacher for the past 10 years, while 56% reported having 2-3 different teachers in the past 10 years. Studies have shown that inconsistent staffing and the associated variable teaching methods related to high turnover could be negatively impacting health education student performance in these schools (García & Weiss, 2019; Ronfeldt et al., 2013). The causes of high turnover are complex, interconnected, and multifactorial; they may mirror the common causes for high turnover rates in all US schools including insufficient pay, weak occupational support systems, poor/unsafe occupational climate, and even perceived low societal respect (García & Weiss, 2019, 2020). In addition to significant teacher turnover, only 12% of schools surveyed reported having a certified health teacher compared to 92% of hearing public schools.

In the US, a nationally certified health teacher must have an undergraduate health or physical education degree and complete a national certification examination specifically in health education. The highest standard for health teacher certification is through the National Commission for Health Education Credentialing. While many undergraduate education degrees combine physical and health education, this certification is specific to health educators and is nationally recognized (Credentialing, 2018). Some states only require an undergraduate degree while some require a post-graduate master's degree (Society of Health and Physical Educators). Certification for teachers of the Deaf also varies by state but generally require a degree in special education as well as a licensing exam in Deaf and Hard of Hearing Education (NYS Department of Education, 2014). Having a small percentage of nationally certified health teachers in schools for the Deaf may have a negative impact on the quality of information being taught as teacher quality can vary greatly when teachers are outside of their field of expertise. Additionally, fewer teachers at schools for the Deaf are deaf or fluent in ASL, potentially limiting adequate information exchange and effective teaching (Mann, 2016). Further research is necessary to elucidate the barriers schools for the Deaf encounter when hiring and retaining certified health teachers and to quantify the impact of having a low percentage of certified health teachers on Deaf youth's health literacy.

Another major barrier identified was the lack of resources available for effectively teaching health to Deaf children; 92% of schools in the study reported a lack of resources. This is consistent with smaller previous studies where teachers of the Deaf reported challenges in finding appropriate resources (Ahmadi et al., 2015; Goldstein et al., 2010). The topics that were listed as most in need of additional resources were Mental Health, IPV, and internet and social media

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safety. However, all topics included in the survey had greater than 50% of respondents stating a need for additional resources. Thus, there may be inadequate resources across all suggested health topics. Future research should look specifically at which resources are lacking and which would be most beneficial to develop for schools for the Deaf. Mental Health and Internet and Social Media Safety were also rated as the two topics that schools that were most in need of additional time in the curriculum. A lack of appropriate health education resources may be prohibiting schools from spending adequate time teaching these topics.

These barriers may be significantly impacting the quality of health education that Deaf children are receiving. Respondents overwhelmingly ranked student knowledge across all subjects as poor or satisfactory, with the worst ratings from knowledge of Family History, Mental Health, IPV, and Advocating as a Deaf Person in a Professional Setting. No subject received a rating of over 10% in the “excellent knowledge” category, suggesting a general low level of relevant health literacy perceived by the respondents. Poor knowledge of family history may be linked to the dinner table syndrome as Deaf children are not able to overhear health-related conversations among family members. This may be contributing to health disparities in the community as research suggests those with a stronger knowledge of their family narrative have superior psychological well-being (McLean et al., 2019). The poor to satisfactory perceived knowledge of Mental Health and IPV could be correlated to the high rates of Mental Health illnesses and IPV that have been documented in the Deaf community but further studies should be conducted to assess actual knowledge levels and association (Anderson & Leigh, 2011; Fellingner et al., 2012; Pollard et al., 2014).

LIMITATIONS

There are several limitations to this study. The first limitation is generalizability as ten of the sixty schools that were surveyed were in the Southeastern US and we did not have any responses from this region. This limited true generalizability as any unique disparities in that region may not be represented in our results. Generalizability may also have been limited by generating themes and developing a survey from a single deaf residential school. We attempted to mitigate this limitation with comparison and adaptation from the national CDC health education survey.

This study sampled all K-12 schools for the Deaf that are CEASD accredited with a response rate of 42%. There may be several reasons for this response rate. We communicated with these schools via email and we only contacted the superintendent of the school. If this single person did not access their email during our study period, we may have missed their participation. Follow-up was via this same route of communication. Another limitation, unique to working with the Deaf ASL user, is the use of their second language (i.e., English) in the emails and survey. While we included a link to a video that summarized the contents of the email and study purpose in ASL in our initial email, all the subsequent emails and the survey were in written English. Thus, responses may have been somewhat limited by those who feel more comfortable communicating in ASL.

The nature of our survey also creates limitations to the study. The survey was intentionally brief to maximize participation but consequently only queried about a limited number of broad topics that could potentially be included in a comprehensive health curriculum. Furthermore, this was a descriptive study; thus, we did not administer our survey to hearing schools for controlled

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comparison. We were interested in assessing the experiences and perceived barriers to health education in schools for the Deaf thus we focused on designing an instrument that would identify areas for future research and intervention. Additionally, the focus of our study was high school health education and thus we did not explore what health education is like in grades K-8 at schools for the Deaf.

Additional opportunities for future research could include comparing our results to hearing schools in the US, assessing health care knowledge among deaf students in mainstream schools, or completing a similar survey to compare results to comparable schools for the Deaf outside of the United States. Further research could be done to assess actual student knowledge of the subjects that were queried rather than perceived student knowledge by the administrators who completed the surveys.

RECOMENDATIONS

This study has several potential implications for health education in schools for the Deaf. According to the Healthy People 2020 campaign, two major goals are to improve adolescent health and to “increase the quality, availability, and effectiveness of educational and community-based programs designed to prevent disease and injury, improve health, and enhance quality of life”. In our study, we found that the health of Deaf adolescent children may be compromised based on the barriers to effective health education in schools for the Deaf. As such, we propose the following actions to improve health policy.

1. A thorough investigation needs to be conducted as to the barriers to hiring and retaining health teachers in schools for the Deaf, and these barriers should subsequently be addressed.

2. Resources should be allocated towards creating more health education resources that are visual or in ASL to facilitate increased resources for teaching health in schools for the Deaf.
3. There may be a need for curriculum to be developed for health education in vulnerable populations that is specific to the disparities faced by these populations
4. Having a certified health teacher and a standardized health curriculum at schools for the Deaf may create a more standardized educational experience across schools.

CONCLUSIONS

Overall, our study highlights several barriers to health education in schools for the Deaf. High rates of teacher turnover and low rates of certified health teachers in the schools are likely creating a challenging environment for consistent, high-quality health education. Almost all schools reported a lack of resources for teaching health to Deaf students across all subjects. The subjects that had the greatest lack of resources were also perceived to have the poorest knowledge among students and require the most additional time in the curriculum. Thus, it seems reasonable to conclude that a lack of resources is creating a major barrier to effectively educating these students.

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School Information

4. Do you have a state certified health teacher at the school?
 - Yes
 - No

5. Is anybody besides a state certified health teacher responsible for teaching health class in the school?
 - Yes
 - If yes, please specify what their certification is _____
 - No
6. Within the past ten years, how many different health teachers have you had at the school?
 - 1
 - 2-3
 - 4-5
 - Greater than 5

7. Estimate how many total hours of health class instruction are provided during each of the following years?
 - 9th
 - _____
 - 10th
 - _____
 - 11th
 - _____
 - 12th
 - _____

Student Information

8. How would you rate your student's knowledge on the following subjects by the time they graduate? Please rate it as poor, satisfactory, good, or excellent.
 - Mental Health
 - Internet and social media safety
 - Prevention of substance abuse
 - Healthy Lifestyle
 - Safe Sex practices
 - Conflict resolution/ Bullying prevention
 - Intimate Partner Violence (Domestic Violence)
 - Advocating as a Deaf person in a professional setting
 - Family History

Health Curriculum Information

9. Do you cover the following topics in your health instruction? Answer yes or no.
 - Mental Health
 - Internet and social media safety
 - Substance abuse
 - Healthy Lifestyle
 - Safe Sex practices

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- Conflict resolution/ Bullying prevention
 - Intimate Partner Violence (Domestic Violence)
 - Advocating as a Deaf person in a professional setting
 - Family History
 -
10. If you could spend more time on any one of the following topics in your health classroom, what would it be?
- Mental Health
 - Internet and social media safety
 - Substance abuse
 - Healthy Lifestyle
 - Safe Sex practices
 - Conflict resolution/ Bullying prevention
 - Intimate Partner Violence (Domestic Violence)
 - Advocating as a Deaf person in a professional setting
 - Family History
 -
11. Do you feel that there are a lack of Deaf-friendly resources?
- Yes
 - If yes, please specify which subjects within the healthcare curriculum you believe are in the most need of additional Deaf-friendly resources.

 - No
 - If no, would you like to comment further?

-
12. In which of the following subjects do you feel it is most important to have more Deaf-friendly resources to be used in the health classroom?
- Mental Health
 - Internet and social media safety
 - Prevention of substance abuse
 - Healthy Lifestyle
 - Safe Sex practices
 - Conflict resolution/ Bullying prevention
 - Intimate Partner Violence (Domestic Violence)
 - Advocating as a Deaf person in a professional setting
 - Family History
13. Are there any additional comments you would like to make regarding your school's health education curriculum that you feel were not covered in this survey?
- _____
- _____
- _____

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Table 1. Initial Interview Response Themes

Teachers were struggling to identify culturally or linguistically appropriate resources for teaching health education topic to their students.
High school students were coming into health class with gaps in their fund of knowledge.
Limited knowledge exists in the health topics of self-advocacy as a Deaf person, knowledge of family history, internet and social media safety, and Mental Health.
High rates of health teacher turnover made it difficult to have teachers who were well trained in teaching health to their student body.

Table 2. Demographics

Variables	N	Percentage
Respondent's Years in Current Role (N=24)		
1-3 years	7	29.17
4-6 years	3	12.5
7-9 years	3	12.5
10+ years	11	45.83
School Geographic Region (N=25)		
Western Coast	7	28
Northern Central	6	24
Southern	3	12
Northeast	9	36
Does the School have a Nationally Certified Health Teacher?		
Yes	3	12
No	22	88
Grades Receiving Health Instruction*		
9 th	23	92
10 th	20	80
11 th	13	52
12 th	13	52
Hours Spent on Health Instruction Per Grade		
	Median	Range
9 th	60	0-180
10 th	16	0-180
11 th	1	0-120
12 th	<1 0.5)	0-120

*select all option applies, so total percentage does not equal 100%

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Table 3: Topics that are Covered in the School's High School Health Curriculum

Topics	Yes (n, %)	No (n, %)	I Don't Know	Missing Data (n)
Mental Health	18 (78.3)	3 (13.0)	2 (8.7)	2
Internet and Social Media Safety	21 (91.3)	2 (8.7)	0	2
Prevention of Substance Abuse	22 (100)	0	0	3
Healthy Lifestyle	22 (100)	0	0	3
Safe Sex Practices	21 (91.3)	1 (4.3)	1 (4.3)	2
Conflict Resolution/Bullying Prevention	18 (81.8)	3 (13.6)	1 (4.5)	3
Intimate Partner Violence	16 (72.7)	5 (22.7)	1 (4.5)	3
Advocating as a Deaf Person in a Professional Setting	17 (81.0)	4 (19.0)	0	4
Family History	12 (57.1)	6 (28.6)	3 (14.3)	4

Table 4. Assessment of Time and Resources Available for Each Topic

Topics	Topic Needs Additional Time in Curriculum	Topic Needs Additional Deaf-Friendly Resources	Topics for Which it is Most Critical to Obtain Additional Resources
	%	%	%
Mental Health	52	78.3	76
Internet and Social Media Safety	36	69.6	60
Prevention of Substance Abuse	20	47.8	44
Healthy Lifestyle	16	52.2	40
Safe Sex Practices	20	60.9	48
Conflict Resolution/Bullying Prevention	28	60.9	56
Intimate Partner Violence	24	73.9	60
Advocating as a Deaf Person in a Professional Setting	28	56.5	44
Family History	20	47.8	32

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Table 5: Respondent's Perception of Student Knowledge of Health Topics

Topics	Poor		Satisfactory		Good		Excellent	
	n	%	n	%	n	%	n	%
Mental Health	11	45.8	11	45.8	1	4.2	1	4.2
Internet and Social Media Safety	6	25.0	7	29.2	11	45.8	0	0
Prevention of Substance Abuse	6	26.1	9	39.1	6	26.1	2	8.7
Healthy Lifestyle	6	26.1	8	34.8	9	39.1	0	0
Safe Sex Practices	5	21.7	11	47.8	6	26.1	1	4.3
Conflict Resolution/Bullying Prevention	6	27.3	5	22.7	9	40.9	2	9.1
Intimate Partner Violence	10	43.5	9	34.8	5	21.7	0	0
Advocating as a Deaf Person in a Professional Setting	8	36.4	7	31.8	3	13.6	4	18.2
Family History	11	47.8	10	43.5	2	8.7	0	0

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