

Knowledge of Personal Hygiene among Students with Hearing Impairment in Special Schools in Rivers-East Senatorial District, Rivers State

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Abstract: *This study investigates knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District, Rivers State. The study adopted the descriptive research design. The study was guided by three research questions and three null hypotheses. The population of the study comprised sixty-two (62) students with hearing impairment in special schools and inclusive schools in the area. The sample size was 62 students with hearing impairment. The census sampling technique was used for the study. The instrument for data collection was a self-structured questionnaire, titled: "Knowledge of Personal Hygiene Questionnaire" (KPHQ)". The reliability of the instrument was determined through test re-test reliability method which yielded a reliability index of $r=0.81$. Mean and standard deviation were used to answer the research questions while Independent sample t-test was used to test the null hypotheses at 0.05 level of significance. The study revealed that there was high level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on gender. It was further revealed that there was no significant difference in the mean rating of male and female students on their level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District. It was recommended among others that; Parents and teachers should be encouraged to continue giving correct and appropriate personal hygiene information to students with hearing impairment and other areas of disabilities.*

Key words: *Hygiene, Personal, Knowledge, Gender, Hearing, Impairment.*

Introduction

The term "disability" refers to constraints on one's activities, involvement, and the structure or function of the human body. Around 360 million people worldwide—91 percent of adults and 9% of children—have some type of hearing impairment, accounting for a noteworthy 15% of the global population who live with disabilities [1]. The degree of a person's hearing loss, which can vary from slight to severe and be either permanent or variable, is the primary factor used to classify someone as deaf or hard of hearing [2]. According to Duthey [3], 42 population-based studies conducted globally indicate that children in Sub-Saharan Africa have higher rates of hearing impairment, which is defined as the inability to distinguish sounds that are 25 dB or lower. Around the world, communities provide children with hearing impairments with enhanced social functioning through the provision of

healthcare, education, and special programs and welfare services [4]. The aforementioned services are mandated by many international agreements and domestic legislations with the aim of improving the social, educational, and health requirements of individuals with disabilities.

According to Quickman [5], hygiene is the study and practice of keeping things clean in order to prevent sickness or stop it from spreading. The idea also encompasses the collection of behaviors related to maintaining good health and leading a healthy lifestyle. It is a notion that pertains to personal, professional, and medical care as well as activities that impact most facets of daily life, however it is most frequently linked to illness prevention. Taking care of one's hands, legs, teeth, ears, hair, eyes, and nose is another way to define personal hygiene. Individuals frequently experience health benefits or diseases as a result of their own behaviors or actions [6]. Some instances of actions or behaviors that people engage in that can lead to illness include: not cleaning hands before eating; urinating anywhere in an open field; not cleaning hands after urinating; not doing regular laundry; and, when it comes to oral hygiene, using the incorrect products to clean one's mouth [7].

Personal hygiene refers to the sanitary measures that an individual takes to maintain their physical health and well-being through personal hygiene. Maintaining good personal hygiene may make someone feel and look their best by avoiding disease. Reducing personal sickness, recovering from personal disease, achieving optimal health and well-being, gaining social acceptability, and preventing the transmission of illness to others are some of the reasons why people practice personal hygiene. Failure to provide appropriate care and attention to one's body in general might have a negative impact on one's personality [4].

Proper attire, well-groomed hair, spotless teeth, new hair, clean skin, and well-manicured nails are all indicators of good grooming. The sum of all these little physical characteristics of an individual adds to their overall state of health and well-being. Maintaining proper personal cleanliness is one of the best methods to prevent disease [6]. This means cleaning your hands and body as well as attending to your teeth, ears, eyes, nails, feet, and other body parts. Taking care of personal belongings is another aspect of it. Beautiful appearances are typically the outcome of meticulous attention to personal cleanliness. There are some materials that people generally share with others which may be detrimental to health; such materials include hair clippers, manicure and pedicure kits. It is important for students to be aware of this and take necessary precautions.

Adeniyi [7] asserts that the top five health issues that students in Nigeria face are fever/typhoid (56%), headache (43%), stomach ache (29%), cough/catarrh (38%), and malaria (40%). Additionally, 30% of students have a low body mass index (BMI), 0.2% have lice on their heads, 3% have skin rashes, 20% have normal visual acuity, 0.8% and 0.5% of primary and secondary school students, respectively, have lip sores, 10%+ have dental plaque, 0.4% have sores on their tongue, and 19% of students have normal hearing [7].

Students' knowledge of personal hygiene has been proven to rise dramatically following enlightenment programs that raise awareness. Dental decay is one of the main oral health issues in Nigeria. It is especially common in young children and adolescents, and its frequency is strongly correlated with oral hygiene and socioeconomic status [8]. Proper attire, well-groomed hair, spotless teeth, new hair, clean skin, and well-manicured nails are all indicators of good grooming. The sum of all these little physical characteristics of an individual adds up to their overall state of health and well-being. Conducting a needs assessment of students with hearing impairments is a crucial first step in promoting personal hygiene. Herein laid the basis and import of the study which examined the knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District, Rivers State.

Statement of the Problem

Numerous studies on the knowledge of personal hygiene have been conducted on a variety of populations, including undergraduate students, healthcare personnel, hospitality staff, and traditional birth attendants. Research has demonstrated that inadequate personal hygiene practices are linked to the spread of bacteria, gum disease, a higher prevalence of infectious diseases, food-borne outbreaks, and infections of the reproductive system. Poor personal hygiene awareness may be the cause of the

spread of infectious illnesses. Personal hygiene deficiency diseases have been found to continue to be a serious health problem in developing countries like Nigeria, especially among persons with disabilities, viz a-vis students with hearing impairment who may have limited information resources. Moreover, to the best of the researcher's knowledge, limited studies focused on regular school students, and there is no formal study conducted concerning personal hygiene knowledge and practice among persons with disabilities, not to mention those with hearing impairment. Therefore, the study investigated the knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District, Rivers State.

Aim and Objectives of the Study

The aim of the study was to investigate the knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District, Rivers State. Specifically, the objectives were to;

1. Determine the level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on gender.
2. Examine the level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on age.
3. Ascertain the level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on class level.

Research Questions

The following research questions guided the study.

1. What is the level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on gender?
2. What is the level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on age?
3. What is the level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on class level?

Hypotheses

The following null hypotheses were formulated to guide the study.

1. There is no significant difference in the mean rating of male and female students on the level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District.
2. There is no significant difference in the mean rating of younger and older students on the level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District.
3. There is no significant difference in the mean rating of senior and junior students on the level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District.

Method

This study adopted the descriptive survey research design. The population of the study comprised sixty-two (62) students with hearing impairment in special schools in Rivers East Senatorial District, Rivers State. The sample size used for the study was 62 students with hearing impairment in special schools adopted through census sampling technique. Out of the 10 special schools in Rivers East Senatorial District, 5 special schools were selected for the study which included; Handmade Inclusive School, Special School For the Handicapped Children, Chilek Rehabilitation Center, Goman International Inclusive School and Christy Toby Inclusive Education Centre. The research instrument was a self-designed questionnaire titled: "Knowledge of Personal Hygiene Questionnaire" (KPHQ).

Section A contained the demographic data of the respondents while Section B contained 10 items. The items in section B were placed on a four-point modified likert rating scale of: Very High Extent (VHE), High Extent (HE), Low Extent (LE), and Very Low Extent (VLE) respectively. The reliability of the instrument (KPHQ) was determined using test re-test reliability method, which yielded a reliability index of $r=0.81$. The research questions were answered using mean and standard deviation, while the Independent sample t-test was used to test the null hypotheses at 0.05 level of significance. The data collected were analysed with the aid of Statistical Package for Social Science (SPSS) version 25.0[9].

Research Question One: What is the level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on gender?

Table 1: Mean and Standard Deviation Showing the Level of Knowledge of Personal Hygiene among Students with Hearing Impairment Based on Gender

S/N	Knowledge of Personal Hygiene	Male N=28 \bar{X} SD		Female N=34 \bar{X} SD	
1	Covering one's nostrils while sneezing is part of personal hygiene	3.01	0.87	3.03	0.75
2	Cleaning of nostrils with one's fingernails is not normal	3.15	0.73	3.20	0.99
3	Cleaning the inner part of ear with cotton bud is not a good health behaviour	3.36	0.66	3.19	0.58
4	The ears need to be protected from loud noise to prevent them from being damaged	3.02	0.15	2.83	0.31
5	Wearing sun-shade to protect one's eyes from rays of the sun is a way of protecting the eyes	3.10	0.92	2.97	0.84
6	It is wrong walking barefooted	3.00	0.54	2.98	0.73
7	Eating with dirty hands is not too bad	2.92	0.64	3.14	0.76
8	It is recommended to use soap while washing ones hand	2.56	0.94	3.41	0.41
9	After using the toilet it is expected that the individual should wash he's/her hand with running water	3.14	0.57	2.77	0.41
10	It is proper to maintain a safe distance from others when having a flu	2.88	0.10	2.67	0.57
11	Clothes are to be washed when it appears dirty	2.81	0.27	2.81	0.27
12	Sharing one's clothes with others can lead to infections or any disease	2.85	0.43	2.85	0.43
13	Sharing one's towels with family members can lead to the spread of ringworm	3.00	0.76	3.00	0.76
14	Bathing regularly can help to make our skin to be smooth and healthy	2.50	0.35	2.50	0.35
15	Brushing the teeth can prevent diseases that can affect the teeth	2.91	0.52	3.71	0.52
	Grand Mean/SD	3.23	0.35	3.19	0.83

(Survey Data, 2024)

Table 1 shows the level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on gender. Specifically, the result indicates a grand mean for male students as ($\bar{X} = 3.23$; $SD = 0.35$), and (female students as $\bar{X} = 3.19$; $SD = 0.83$) which is higher than the criterion mean of (>2.50). This further indicates that there is high level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on gender.

Research Question Two: What is the level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on gender?

Table 2: Mean and Standard Deviation Showing the Level of Knowledge of Personal Hygiene among Students with Hearing Impairment Based on Age

S/ N	Knowledge of Personal Hygiene	14-18yrs N=40 \bar{X} SD		19-Abv N=22 \bar{X} SD	
1	Covering one's nostrils while sneezing is part of personal hygiene	2.75	0.43	3.03	0.75
2	Cleaning of nostrils with one's fingernails is not normal	3.00	0.69	3.20	0.99
3	Cleaning the inner part of ear with cotton bud is not a good health behaviour	2.50	0.82	3.19	0.58
4	The ears need to be protected from loud noise to prevent them from being damaged	2.51	0.38	2.83	0.31
5	Wearing sun-shade to protect one's eyes from rays of the sun is a way of protecting the eyes	3.08	0.31	2.97	0.84
6	It is wrong walking barefooted	3.88	0.64	2.98	0.73
7	Eating with dirty hands is not too bad	2.00	0.57	3.14	0.76
8	It is recommended to use soap while washing ones hand	2.99	0.86	3.41	0.41
9	After using the toilet it is expected that the individual should wash he's/her hand with running water	2.54	0.95	2.77	0.41
10	It is proper to maintain a safe distance from others when having a flu	2.94	0.93	2.67	0.57
11	Clothes are to be washed when it appears dirty	3.75	0.43	2.81	0.27
12	Sharing one's clothes with others can lead to infections or any disease	2.60	0.69	2.85	0.43
13	Sharing one's towels with family members can lead to the spread of ringworm	3.50	0.82	3.10	0.76
14	Bathing regularly can help to make our skin to be smooth and healthy	3.51	0.58	3.50	0.35
15	Brushing the teeth can prevent diseases that can affect the teeth	3.08	0.49	2.71	0.52
	Grand Mean/SD	3.06	0.76	3.45	0.60

(Survey Data, 2024)

Table 2 shows the level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on age. Specifically, the result indicates a grand mean for students aged 14-18 years as ($\bar{X} = 3.06$; SD = 0.76), and (students aged 19 years and above as $\bar{X} = 3.45$; SD = 0.60) which is higher than the criterion mean of (>2.50). This further indicates that there is high level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on age.

Research Question Three: What is the level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on class level?

Table 3: Mean and Standard Deviation Showing the Level of Knowledge of Personal Hygiene among Students with Hearing Impairment Based on Class Level

S/N	Knowledge of Personal Hygiene	Junior N=26 \bar{X} SD	Senior N=36 \bar{X} SD
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1	Covering one's nostrils while sneezing is part of personal hygiene	2.84	0.55	3.61	0.18
2	Cleaning of nostrils with one's fingernails is not normal	2.53	0.74	3.17	0.61
3	Cleaning the inner part of ear with cotton bud is not a good health behaviour	2.99	0.70	2.66	0.73
4	The ears need to be protected from loud noise to prevent them from being damaged	2.72	0.91	3.10	0.82
5	Wearing sun-shade to protect one's eyes from rays of the sun is a way of protecting the eyes	2.85	0.33	2.90	0.85
6	It is wrong walking barefooted	2.90	0.87	2.92	0.26
7	Eating with dirty hands is not too bad	2.82	0.88	2.81	0.89
8	It is recommended to use soap while washing ones hand	3.09	0.98	3.65	0.85
9	After using the toilet it is expected that the individual should wash he's/her hand with running water	2.71	0.56	2.99	0.66
10	It is proper to maintain a safe distance from others when having a flu	3.06	0.77	2.87	0.72
11	Clothes are to be washed when it appears dirty	2.96	0.85	3.61	0.38
12	Sharing one's clothes with others can lead to infections or any disease	3.24	0.55	3.17	0.61
13	Sharing one's towels with family members can lead to the spread of ringworm	3.53	0.74	2.66	0.73
14	Bathing regularly can help to make our skin to be smooth and healthy	3.09	0.70	3.10	0.42
15	Brushing the teeth can prevent diseases that can affect the teeth	3.12	0.91	2.90	0.85
Grand Mean/SD		3.11	0.83	3.17	0.93

(Survey Data, 2024)

Table 3 shows the level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on class level. Specifically, the result indicates a grand mean for junior students as ($\bar{X} = 3.11$; $SD = 0.83$), and (senior students as $\bar{X} = 3.17$; $SD = 0.93$) which is higher than the criterion mean of (>2.50). This further indicates that there is high level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on class level[10].

Hypothesis One: There is no significant difference in the mean rating of male and female students on the level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District.

Table 4: T-Test Analysis Showing Significant Difference in the Mean Rating of Male and Female Students on the Level of Knowledge of Personal Hygiene among Students with Hearing Impairment in Special Schools

Gender	N	Mean	Standard deviation	Df	T-test	Sig.	Remark
Male	28	14.73	0.35	60	.056	.070	Ho is Accepted
Female	34	12.45	0.83				

(Survey Data, 2024)

From the results in Table 4, it can be observed that at a 0.05 level of significance and 60 degrees of freedom, the t-value = .056 and the p-value = .070 $>$ 0.05. Since the p-value = .070 $>$ 0.05 the null hypothesis that there is no significant difference in the mean rating of male and female students on

level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District is accepted[11].

Hypothesis Two: There is no significant difference in the mean rating of younger and older students on the level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District.

Table 5: T-Test Analysis Showing Significant Difference in the Mean Rating of Younger and Older Students on the Level of Knowledge of Personal Hygiene among Students with Hearing Impairment in Special Schools

Age	N	Mean	Standard deviation	Df	T-test	Sig.	Remark
14-18yrs	40	12.82	0.76	60	.094	.090	Ho is Accepted
19yrs -Above	22	14.12	0.60				

(Survey Data, 2024)

From the results in table 5, it can be observed that at 0.05 level of significance and 60 degrees of freedom, t-value =.094 and p-value = .090 > 0.05. Since the p-value = .090 > 0.05 the null hypothesis that there is no significant difference in the mean rating of younger and older students on level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District is accepted.

Hypothesis Three: There is no significant difference in the mean rating of senior and junior students on the level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District.

Table 6: T-Test Analysis Showing Significant Difference in the Mean Rating of Senior and Junior Students on the Level of Knowledge of Personal Hygiene among Students with Hearing Impairment in Special Schools

Class Level	N	Mean	Standard deviation	Df	T-test	Sig.	Remark
Junior	26	15.11	0.83	60	.041	.080	Ho is Accepted
Senior	36	14.17	0.93				

(Survey Data, 2024)

From the results in table 6, it can be observed that at 0.05 level of significance and 60 degrees of freedom, t-value =.041 and p-value = .080 > 0.05. Since the p-value = .080 > 0.05 the null hypothesis that there is no significant difference in the mean rating of senior and junior students on level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District is accepted.

Discussion of the Findings

The findings of research question one (Table 1) and (Table 4) revealed that there was a high level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on gender. The finding is in tandem with the study of Ubani and Okpan [12], who revealed that male and female students are eager to adopt good sanitary habits, which are necessary for their optimal health and performance. The finding is also not surprising to the researcher, as male and female students with disabilities are often guided to be aware of good health habits; this may explain the reason for their knowledge of personal hygiene.

The findings of research question two (Table 2) and (Table 5) revealed that there was a high level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District, based on age. The finding is in line with the study of Barnder [13], who revealed that both older and younger school-aged adolescents are pre-informed of the dangers of poor health habits, which are likely to cause diseases like flu, stomach pain, nausea, and malaria. The finding is not surprising to the researcher as all of the students with disabilities have parents and guardians who must have taken an active part in ensuring that their wards are well informed of personal hygiene habits, which are essential for their performance and good health.

The findings of research question three (Table 3) and (Table 6) revealed that there was a high level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on class level. The finding is in agreement with the study of Adem [14], who revealed that students with disabilities' knowledge of personal hygiene is not determined by gender or class level but by a variety of other factors, such as types of disabilities, such as intellectual disability and cerebral palsy, as these two conditions of disabilities limit students' knowledge acquisition[15].

Conclusion

The study's results led the researcher to the conclusion that there was a high level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District based on gender. It further revealed that there was no significant difference in the mean rating of male and female students on their level of knowledge of personal hygiene among students with hearing impairment in special schools in Rivers-East Senatorial District.

Recommendations

Based on the findings of the study, the researcher made the following recommendations:

1. Parents and teachers should be encouraged to continue giving correct and appropriate personal hygiene information to students with hearing impairment and other areas of disabilities.
2. Parents and teachers should be interested in educating female students with hearing impairment about the process of menstrual hygiene, proper use of pads, and its proper disposal.
3. Parents should not relent in their duty to provide sanitary materials to their children with hearing impairment to foster their knowledge of personal hygiene.

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