Assessment of Science Teachers' Awareness towards Communicable Diseases Control in Baghdad City Primary Schools

تقييم وعي معلمي العلوم تجاه السيطرة على الأمراض الأنتقالية في المدارس الأبتدائية لمدينة بغداد

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المستخلص:
الهدف: تقييم وعي معلمي العلوم تجاه السيطرة على الأمراض الأنتقالية في المدارس الأبتدائية لمدينة بغداد.
المنهجية: أجريت دراسة وصفية شملت (١٠٠) مدرسة أبتدائية، (٥٠) في قطاع الرصافة ، و (٥٠) في قطاع الكرخ للفترة من ٥ أذار ٢٠١٢ إلى ١٥ أذار ٢٠١٣ لغرض تقييم وعي معلمي العلوم تجاه السيطرة على الأمراض الأنتقالية. تم أختيار عينة متعددة من (١٠٠) معلم لمادة العلوم (ذكور وإناث) وبواقع معلم من كل مدرسة. أستعملت أستمارة أستبانة لجمع المعلومات تم تحديد مصداقيتها من خلال عرضها على مجموعة من الخبراء في مجال الاختصاص ، أما ثباتها فقد تم تحديده من خلال دراسة استطلاعية أجريت في (٢٠) مدرسة أبتدائية من غير المذكورة أعلاه شملت (٢٠) معلماً للفترة من ٨/نيسان/٢٠١٢ الى ١٤/نيسان/٢٠١٢. تم تحليل بيانات الدراسة من خلال أستعمال الإحصاء الوصفي والاستدلالي.
النتائج: أظهرت نتائج الدراسة الى أن (٧٨%) من العينة هم من المعلمات الأناث، وان (٣٩%) منهم تتراوح أعمارهم ما بين (٤٠-٤٩) سنة وان (٦٥%) هم من المتزوجين في حين ان (٢١%) منهم من العزاب ، وأن (٥٠%) هم من خريجي معاهد المعلمين. كما بينت الدراسة أن (٢٦%) منهم ممن لديه سنوات خدمة في مجال التعليم تتراوح بين (١٥-١٩) سنة . وأن (٥٨%) منهم لم تتح له الفرصة بالأشتراك في دورات تخص الوقاية أو السيطرة على الأمراض الأنتقالية . أشارت نتائج الدراسة إلى إن وعي معلمي مادة العلوم كان غير كافياً تجاه السيطرة على الأمراض الأنتقالية والمناعة والتحصين ضد الأمراض وكذلك تجاه المشاكل الصحية في المدرسة .
التوصيات: أوصت الدراسة بالحاجة الى ضرورة التعاون بين وزارة الصحة ووزارة التربية لأعداد كتاب منهجي لطلاب المدارس الابتدائية عن طبيعة الأمراض الانتقالية وكيفية السيطرة عليها مع الشرح الوافي عن أهم الأمراض الانتقالية مزود بالرسوم والصور التوضيحية الملونة، والتركيز على أهمية وجود دورات مستمرة بشأن مراقبة الأمراض الأنتقالية للمعلمين في جميع المدارس الابتدائية.

Abstract:
Objective: To assess of Science Teachers' Awareness towards Communicable Diseases Control in Baghdad City Primary Schools
Methodology: A descriptive study was conducted, included (100) primary school, (50) in Al-Rassafa sector, and (50) in Al-Karkh sector, from March 5th 2012 to March 15th 2013, to assess of science teachers' awareness towards communicable diseases control. A cluster sample of (100) Science teachers (males and females) were selected, as one teacher from each school. A questionnaire format was used for data collection. The validity of questionnaire was estimated through a penal of experts related to the field of study, and its reliability was estimated through a pilot study conducted in (20) schools (excluded from the original sample) which included (20) teachers from April 8th 2012 to April 14th 2012. Data were analyzed through the application of descriptive and inferential statistical analysis.
Results: The results of the study indicated that (78%) of sample were female, and (39%) of them their ages were between (40-49) years old, (65%) of them were married, while (21%) of them were single, and (50%) of them were institute graduates. Also the study indicated that (26%) of teachers had (15–19) years of employment in teaching sector. Furthermore, (58 %) of sample had no opportunity to be involved in training courses concerning communicable diseases control. The results of this study indicate that, teachers' awareness was poor (in adequate awareness) towards communicable diseases control, immunity and immunization, and also concerning health problems in school.
Recommendations: The study recommends that there is a need for cooperation between the Ministry of Health and the Ministry of Education to prepare a textbook for primary schools students about the nature of the communicable diseases and how to control them with adequate explanation of the most important diseases in school provided with photos and illustrations, and emphasis on continuous sessions concerning communicable diseases control for teachers in all primary schools.
Keyword: Assessment, Awareness, Communicable diseases

Introduction:

Communicable Diseases are illnesses caused by infection (invasion of the body) with specific germs such as viruses, bacteria, funguses, and parasites are called infectious diseases. Communicable diseases are those illnesses that can be spread from one person to another either directly or indirectly. Infectious diseases that commonly occur among children are often communicable and may spread very easily from person to person [(1)].

Schools have an important role in improving the health of children and the community. Teaching about health is one way to improve health but schools can do more. Many schools are becoming Health Promoting Schools (HPS) and the Department of Education is urging all schools to become healthy and child friendly [(2).]

Since classroom teachers spend several continuous hours a day with their students, they are often in an excellent position to detect early physical and behavioral changes in students at school. Teachers may observe differences in the usual pattern for a particular student and deviation from a developmental "norm" for students of a given age [(3)].

In Iraq, one finds that the health environment has been damaged by years of wars, becoming in the process a hotbed of communicable diseases. In school settings, for example, Iraqi school staff, personnel, and students, are exposed, on a daily basis, to an inordinate number of diseases, caused by faulty sanitary conditions and an overall lack of hygienic care. Secondly, this health is crisis is compounded by an overall lack of knowledge and awareness of the risks of communicable diseases. Thus, due to the increased risk of contracting a communicable disease, infection control within the school setting has progressed to unprecedented levels. And in an attempt to augment and implement medical protocols, legal and ethical guidelines have been developed in Iraq to ensure the personal safety of students, teachers, and staff. In order to identify communicable diseases that pose a significant risk to students and teachers alike, it has become imperative to identify the mode of transmission of the various types of infectious agents and raise awareness among teachers, in particular those who teach health related subjects [(4)].

Methodology:

The study is conducted at six education directorates in Baghdad City, three in Al Rassafa sector, and three in Al Karkh sector. The study included one hundred primary schools, 50 in Al Rassafa sector, and 50 in Al Karkh sector, from March 5th 2012 to March 15th 2013, to assess of science teachers' awareness towards communicable diseases control. Stratified samples of 100 Science teachers (males and females) were selected, as one teacher from each school. A questionnaire format was used for data collection. The validity of questionnaire was estimated through a penal of experts related to the field of study, and its reliability was estimated through a pilot study conducted in 20 schools is excluded from the original sample which included 20 teachers from April 8th 2012 to April 14th 2012.

A questionnaire format was used for data collection which consisted two major parts; the first part is concerned with teachers' socio-demographic characteristics of (sex, age, gender, marital status, and education), years of experience in teaching, and participation in training courses. The second part is concerned with teachers' awareness of communicable diseases that include teachers' knowledge toward communicable diseases and their prevention (35) items, teachers' knowledge toward immunity and vaccination (25) items, teachers' knowledge toward health-related problems (acute illnesses 12 items; and physical exercise 4 items), teachers' knowledge toward health habits (5 items).

The content validity is estimated through a panel study of experts. The reliability of study instrument was determined by using test – retest technique. The alpha correlation

coefficient (r) was = 0.92 for teachers' awareness [5].

Analysis of data was performed through the application of descriptive statistics (frequency, percentage) and inferential statistics (mean of scores, relative sufficiency, Pearson correlation coefficient, and chi- square test). The items of science teachers' awareness were rated on three level Likert scales; I know, uncertain, and I do not know, and scored as 3, 2 and 1, respectively [6]. Relative sufficiency (RS) Less than (66.66) was considered low level of awareness, (66.66- 77.77) was considered moderate, while (77.78-100.0) was considered high level of awareness. The researcher interviewed all teachers, and each one was given a time period between (25–30) minutes to answer the questions.

Results:

Table 1. Distribution of Teachers by Their Demographic Characteristics (n= 100)

List	Variables	Frequency	Percent	Cum. Percent
1	**Gender**			
	Male	22	22.0	22.0
	Female	78	78.0	100.0%
	Total	100	100.0%	100.0%
2	**Age (year)**			
	20-29	17	17.0	17.0
	30-39	31	31.0	48.0
	40-49	39	39.0	87.0
	50- and more	13	13.0	100.0%
	Total	100	100.0%	100.0%
3	**Marital status**			
	Single	21	21.0	21.0
	Married	65	65.0	86.0
	Divorced	5	5.0	91.0
	Widowed	9	9.0	100.0%
	Total	100	100.0%	100.0%
4	**Level of education**			
	Secondary graduate	31	31.0	31.0
	Institute graduate	50	50.0	81.0
	College graduate	15	15.0	96.0
	Course after secondary school	4	4.0	100.0%
	Total	100	100.0%	100.0%
5	**Sector**			
	Al-Karkh Sector	50	50.0	50.0
	Al – Rusafa Sector	50	50.0	100.0%
	Total	100	100.0%	100.0%
6	**Years of employment**			
	1-5	16	16.0	16.0
	6-10	24	24.0	40.0
	11-15	19	19.0	59.0
	16-20	15	15.0	74.0
	21 – and more	26	26.0	100.0%
	Total	100	100.0%	100.0%

Table 1. Continues

7	Training courses			
	None	58	58.0	58.0
	One	29	29.0	87.0
	Two	7	7.0	94.0
	Three – and more	6	6.0	100.0%
	Total	100	100.0%	100.0%

Cum = Cumulative, n=Sample Size

Table (1) shows that 78% of teachers in the sample study were females. Concerning their ages 39% of them were between 40–49 years old.

Regarding the marital status, the majority of teachers (65%) were married. Concerning educational level, half of the teachers (50%) were Institute graduate.

This table also shows that 26% of teachers had 21–and more years of employment in teaching sector. Furthermore, 58 % had no opportunity to be involved in training courses concerning communicable diseases control.

Table 2. Mean of scores and relative sufficiency for teacher's awareness concerning communicable diseases control

List	Items	Mean	RS %	grade
1	I think that infectious diseases are caused by specific objects such as viruses, bacteria, fungi, or parasites.	2.16	72.0	M.S
2	I think that the designation of infectious diseases or transitional came because of the proliferation of spread from one individual to another.	2.10	70,0	M.S
3	Communicable disease - a disease due to bacteria or its toxic products that travels directly or indirectly to a healthy person from an infected person or animal, or through the intermediary host, whether animal or insect carrier or material non-live environment.	1.44	48.0	L.S
4	The success of Interventions to control communicable diseases requires the control of the transitional three basic determinants of infectious diseases are (1) the infectious agent and its sources, (2) how transmission of the agent to the host and the environment in which transmission takes place with the transition process, and (3) Host	1.38	46.0	L.S
5	Nearly half of all deaths occur due to infectious diseases.	1.42	47.33	L.S
6	Carrier – is a person who is hold disease and carrying germs from him/ her is spreading to others, and may not show signs and symptoms of the disease	2.38	79.62	H.S
7	Contact - is any person or animal has a contact or contact with a person carrying infectious agents may have an opportunity to acquire the infection	2.22	74.0	M.S
8	Contamination - The presence of a pathogenic agent on the surface of the body, or other non-living material	1.38	46.0	L.S
9	Disinfection - The destruction of pathogenic agents by chemical or physical means directly applied	1.46	48.67	L.S
10	Epidemic (or Disease Outbreak) - The occurrence in a community or region of one or more cases of illness that is in excess of normal expectancy	1.80	60.0	L.S
11	I think the notification of certain diseases affecting pupils to health authorities to take preventive and remedial measures is an important duty of the teacher is doing	2.46	82.0	H.S

Table 2. Continues

12	I think that it is very necessary to give pupils with a satisfactory temporary breaks as well as staff at the school who are suffering from disease or in the incubation stage of the disease	2.12	70.67	M.S
13	I think that it is the duty of the teacher should be aware ways of transmission and causes and types of infectious diseases and the signs and symptoms and the incubation period for each	2.20	73.33	M.S
14	I believe that the involvement of teachers in training sessions concerning the transitional diseases have a significant role in the guidance of a healthy and educated students as well as monitoring their health status and report on diseases follows the suspect	2.40	80.0	H.S
15	In my opinion that the improvement and development in nutrition and environmental sanitation, vaccines and antibiotics ,put an end to the epidemic disease	2.16	72.0	M.S
16	Because of the morbidity and mortality caused by the following diseases must therefore work to neutralize these diseases;			
16-1	Water chicken pox	2.18	72.67	M.S
16-2	Epidemic Pneumonia	2.10	70,0	M.S
16-3	Viral Hepatitis	2.24	74.67	M.S
16-4	Tuberculosis	2.26	75.33	M.S
17	Communicable disease called by that name because it moves from one country to another	1.44	48.0	L.S
18	I think that the causes of the occurrence of disease is the host and the environment and the causative agent	1.40	46.67	L.S
19	Infectiousness is a measure of the potential ability of an infected host to transmit the infection to other hosts	1.48	49.33	L.S
20	I imagine that infectious diseases transmitted: by two methods ;horizontal, such as air, or directly through the contact, and the second vertical method are: the passage of inflammation from parents to offspring via sperm or placenta, or contact the vaginal canal during birth	1.40	46.67	L.S
21	I think that the incubation period refers to the time interval between invasion by an infection agent and the first appearance of signs and symptoms of the disease.	1.46	48.67	L.S
22	Factors that affect the host of the disease are:			
22-1	The person's age.	1.46	48.66	L.S
22-2	Vaccinations.	2.22	74.0	M.S
22-3	Nutritional state of person.	2.30	76.67	M.S
22-4	The person's natural resistance to other diseases infected.	2.26	75.33	M.S
22-5	The amount of germs to which the person is exposed.	2.10	70,0	M.S
23	I would imagine that water is an essential element of the transitional disease transmission in the environment and they form an integral part of these diseases as a result of drinking contaminated water.	1.42	47.33	L.S
24	Prevention is the process of reducing the incidence of disease or exposure to disease or vulnerable to the causes of the disease and be through the underlying behaviors individuals for this purpose is classified to the primary, secondary, and tertiary prevention.	1.48	49.33	L.S
25	Primary prevention is a group of activities that reduce infection by improving health and reducing disease progression.	1.42	47.33	L.S
26	Secondary prevention is a set of events aimed at reducing the incidence of the disease through early detection and treatment of disease.	1.38	46.0	L.S

Table 2. Continues

27	**Tertiary prevention is a group-oriented activities to reduce the complications resulting from the disease, which may be in the form of disability or disability through therapy and physical and mental rehabilitation.**	**1.46**	**48.67**	**L.S**
28	**Surveillance definition; is a surveillance system monitor and observe closely to all areas of the presence and distribution of disease through the systematic collection of information and analysis tables, and dissemination of all relevant data related to this disease.**	**1.48**	**49.33**	**L.S**
	Total	**1.83**	**61.0**	**L.S**

RS=Relative sufficiency, MS=Mean of score, L.S=Low significant, M.S= moderately significant, H.S= highly significant.

Table (2) demonstrates the total mean of score for teachers' awareness which indicate that there is low significant awareness (poor) for teachers concerning communicable diseases control, with respect to the total mean of scores and the relative sufficiency (RS).

Table 3. Mean of scores and relative sufficiency for teacher's awareness towards immunity and vaccination

List	Items	Mean	RS %	grade
1	**Immunity is a person's ability to resist disease when exposed to pathogens**	**1.68**	**56.0**	**L.S**
2	**I think that there are two types of immunity: passive immunity and positive immunity.**	**2.26**	**75.33**	**M.S**
3	**Passive or negative immunity is to protect the body, temporarily or for a short period by moving natural antibodies.**	**2.16**	**72.0**	**M.S**
4	**Passive immunity acquired naturally: Is the transfer of antibodies from mother to fetus through the placenta or through breast milk.**	**1.94**	**64.69**	**L.S**
5	**I imagine that active immunity lasts in the body for a longer period of negative passive immunity.**	**1.58**	**52.66**	**L.S**
6	**I think that active immunity acquired naturally produced when the incidence of some diseases or subclinical disease (which does not show symptoms and signs).**	**1.80**	**60.0**	**L.S**
7	**I imagine that active immunity acquired artificially produced when giving vaccines to give immunity without the disease**	**1.72**	**57.5**	**L.S**
8	**Active immunity acquired artificially may occur by active or passive immunization.**	**1.68**	**56.0**	**L,S**
9	**The most successful form of primary prevention is the national vaccination program, which led to immunity at the individual level and at the population level (General immunity).**	**1.86**	**62,22**	**L.S**
10	**Active vaccine refers to an individual vaccination by the introduction of anti-material (infectious agents or vaccine) and is often characterized by the production of anti-body by the host.**	**1.66**	**55.55**	**L.S**
11	**I think that children vaccinated against childhood diseases is an example of active immunity.**	**1.52**	**50.83**	**L.S**
12	**Vaccines are substances containing live causes debilitating or etiology was slain or toxins to generate antibodies that gives the body an effective immunity against certain diseases.**	**2.10**	**70,0**	**M.S**
13	**I think that the two vaccines: Vaccines are optional and mandatory vaccines**	**1.76**	**58.88**	**L.S**
14	**Vaccine against tuberculosis disease, as well as DPT + polio vaccine are mandatory vaccines**	**1.86**	**62,22**	**L.S**
15	**I think that typhoid and smallpox vaccines, rubella and mumps vaccines are optional**	**1.74**	**58.0**	**L.S**

Table 3. Continues

16	Immune Person - A person who possesses specific protective antibodies or cellular immunity as a result of previous infection or immunization,	1.38	46.0	L.S
17	DPT vaccine contains a vaccine against diphtheria, tetanus and whooping cough	1.82	60.66	L.S
18	I think that vaccines that must be taken in childhood before entering the school are: whooping cough, tetanus, polio, measles, rubella, mumps, with booster doses	1.84	61.48	L.S
19	In my opinion that vaccines that are taken during school are booster doses of rubella, mumps, viral hepatitis and typhoid vaccine	1.48	49.33	L.S
20	I imagine that the incubation period in the hepatitis A, long with an 15 - 50 days before the onset of symptoms	1.46	48.67	L.S
21	I imagine that the incubation period of hepatitis B viral long with an 45 - 180 days before the onset of symptoms	1.70	56.66	L.S
22	I imagine that the incubation period in typhoid disease depends on the amount of germs in contaminated food is up to 1-3 weeks	2.06	68.67	M.S
23	I think that the incubation period of poliomyelitis is up to 7-14 days	1.44	48.0	L.S
24	I think that the incubation period in measles disease up to 7-14 days	1.54	51.33	L.S
25	I think that the incubation period of pertussis is up to 7-10 days	2.16	72.0	M.S
	Total	1.77	58.93	L.S

RS=Relative sufficiency, MS= Mean of score, L.S=Low significant, M.S = moderately significant, H.S = highly significant.

Table(3) indicated that teachers' awareness towards immunity and immunization, was low significant awareness (poor),with respect to the total mean of score and relative sufficiency(RS).

Table 4. Mean of scores and relative sufficiency for teacher's awareness towards health problems

List	Items	Mean	RS %	grade
A	Acute illness			
1	Infectious diseases are usually associated with the following signs and symptoms;			
1-1	Fever	2.50	83.33	H.S
1-2	Cough	2.36	78.66	H.S
1-3	Burning sensation during urination	2.10	70,0	M.S
1-4	An malaise	2.30	76.67	M.S
1-5	Loss of appetite	2.42	80.66	H.S
1-6	Rash	2.22	74.0	M.S
1-7	Vomiting	2.06	68.67	M.S
1-8	Diarrhea	2.12	70.67	M.S
2	In my opinion that all signs and symptoms of infectious diseases can be handled by the family and noticed by a teacher in school	2.36	78.66	H.S
3	I think that one of duty of teacher is tell parents of children when student appear ill	2.16	72.0	M.S
4	I think that poor hygiene and fecal contamination may led to urinary tract infection UTI	2.44	81.33	H.S
5	I think that the lack of commitment to public and personal hygiene leads to disease transition	2.36	78.67	H.S
B	Sport and exercise			
1	I think the emphasis on exercise is important for the health of the school's students	2.30	76.67	M.S

Table 4. Continues

2	In my opinion that sport creates a sound body and a sound mind	2.36	78.67	H.S
3	I think that we must practice outdoor sports	1.62	54.0	L.S
4	I believe that the lesson Sports Weekly is important for students to develop their talents	2.34	78.0	M.S
C	Hygiene habits			
1	I think that advice the students the important of wash hands before and after eating	2.50	83.59	H.S
2	I think that advice children the important of bathing at least two times a week	2.48	82.67	H.S
3	I think that the instruct children the important of brushing teeth after going to sleep and after wake up	2.38	79.33	H.S
4	The teacher must periodic monitoring to the student concerning keep nails short and clean and frequent hand washing as prevention methods to prevent the disease	2.44	81.33	H.S
5	Cleaning - is to remove the dirt and germs of materials and objects by being rubbed and washed with hot water and soap or detergent powders and remove infectious agents from them	2.28	76.0	M.S
	Total	2.29	76.33	M.S

Low = Less than (66.66), Moderate (66.66-77.77), and High (77.78-100.0). RS=Relative sufficiency, MS= Mean of score, L.S=Low significant, M.S = moderately significant, H.S = highly significant.

Table (4) presents teachers' awareness towards health problems which show clearly that teachers' awareness was moderate level, with respect to the total mean of score and relative sufficiency (RS).

Table 5. Overall assessment for teachers' awareness toward communicable diseases

List	Grand mean of scores for teachers' awareness related to Items	Grand MS	RS %	grade
1.	Teachers' awareness towards communicable diseases control: (35) items.	1.82	60.70	L.S
2.	Teachers' awareness towards immunity and vaccination. (25)items	1.76	58.85	L.S
3.	Teachers' awareness towards health problems (21) items	2.28	76.25	M.S
	Total	1.95	65.11	L.S

Low = Less than (66.66), Moderate (66.66-77.77), and High (77.78-100.0).RS=Relative sufficiency, MS= Mean of score, L.S=Low significant, M.S = moderately significant, H.S = highly significant.

Table (5) demonstrate the total mean of score , and the relative sufficiency for teachers awareness which indicate that there is low significant awareness(poor) towards communicable diseases control , immunity and immunization, while there is moderate level of awareness towards health problems with respect to the total mean of score and to the relative sufficiency (RS).

Discussion:

1. Discussion of demographic characteristics of study sample for teachers' awareness.

Throughout the course of the present study, and as it has been shown in table (1) that that (78%) of teachers in the sample study were females. Concerning to their ages (39%) of them were between (40–49) years old. Regarding the marital status, the majority of teachers (65%) were married. Concerning educational level, half of the teachers (50%) were Institute graduate. This table also shows that (26%) of teachers had (21–and more) years of employment in teaching sector. Furthermore, (58 %) had no opportunity to be involved in training courses concerning communicable diseases control; these findings disagree with the literature which centered on the enrollment of the teachers in training sessions to improve their knowledge, skills, and

awareness to keep them to up-dated knowledge concerning communicable diseases control. The researcher suggests an opportunity for teachers to be enrolled in training sessions to improve their knowledge and skills.

2. Discussion of the teacher's awareness towards communicable diseases control.

The result of this study include (100) teachers, to assess their awareness towards communicable diseases control, the questionnaire format include (35) items.

The results of this study indicate that, teachers' awareness towards communicable diseases control was poor (Table 2).This means that teachers did not acquire enough awareness towards communicable diseases control.

This result is supported by two studies which indicated that teachers' awareness was poor before implementation an educational program for teachers in primary school. [7], [8].

Another report revealed that teacher-and school-level factors influence the fidelity of implementation of school-based prevention and social character and development programs, the relationships among teacher beliefs and attitudes towards a prevention program and the influence of a school's administrative support and perceptions of school connectedness, characteristics of a school's climate, were specified in two cross-sectional mediation models of program implementation. Program developers need to consider the importance of a supportive environment on program implementation and attempt to incorporate models of successful school leadership and collaboration among teachers that foster a climate promoting cohesiveness, shared visions, and support [9].

3. Discussion of the teacher's awareness towards immunity and vaccination:

Table (3) demonstrate the total mean of score for teachers' awareness which indicate that there is poor level of awareness (low significant) for teachers towards immunity and vaccination with respect to the total mean of score, and to the relative sufficiency (RS) .

There is a study sought to assess immunization needs, primary health care (PHC) use and trial a school-based immunization service for students attending an Intensive English Centre (IEC) high school in Western Sydney, were surveying, assessing self-reported immunization status and use of PHC services via questionnaires . Those students who were not immunized for hepatitis B and measles-mumps-rubella. Students report low immunization rates. This study highlights the urgent need for education and health to work together to provide specialized immunization services for students [10].

4. Discussion of the teacher's awareness towards health problems.

In general, the finding of tables (4),(5) showed that teachers' awareness towards health problems (Acute illness, Sport and exercise, and Hygiene habits) was moderate level (adequate level) with respect to the total mean of score and relative sufficiency (RS).

This result may be due to the lack of continuing teaching education program which must improve their, awareness, knowledge, and even their skills. Many studies emphasized the effectiveness and importance of education program for teachers' awareness towards communicable diseases control [11].

This result was agree with a study which mentioned that after implementation of educational program for teachers in study group their knowledge and awareness were improved while in control group did not improved [12].

Schools can succeed in curbing the spread of infectious diseases. One such study maintains that hand washing remains the single most important action for preventing the spread of infectious diseases. Promoting hand hygiene in an elementary school can be extremely challenging. Forty-one percent of the 5th-grade students used an effective hand washing technique after receiving instruction on proper hand washing, the study concluded that proper and consistent hand washing was a first step towards reducing the spread of

communicable diseases, and that all teachers should be trained to inculcate this habit in their students [13].

In another study, it was determined that hand hygiene interventions have reduced the spread of infectious disease in elementary schools [14].

Recommendations:

1. Emphasis on the need for cooperation between the Ministry of Health and the Ministry of Education to prepare a textbook for primary schools students about the nature of the communicable diseases and how to control them with adequate explanation of the most important diseases in school provided with photos and illustrationson.
2. Emphasis on continuous sessions concerning communicable diseases control for teachers in all primary schools.

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