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Teachers' Awareness about Control of Communicable Diseases at Primary Schools in Al-Swaira City

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Abstract

Background: Infectious diseases, often known as communicable diseases, are disorders brought on by the invasion of body by particular microorganisms such as viruses, bacteria, fungi, and parasites, Main causes of death worldwide remain communicable diseases, which account for a significant portion of the annual death toll.

Aims: assess teachers' awareness about control of communicable diseases, assess awareness of teachers about immunity and vaccination, and find the relation between demographic characteristics and teachers' awareness.

Methods: Descriptive cross-sectional study that was carried out between the March 2022 to September 2022, The study was conducted in primary schools of Al-Swaira city which include (120) teachers from (7) primary schools out of (25) total primary schools, data analysis approaches were used in order to analyze and assess the results of the study under application of the (SPSS 23).

Results: Study show socio-demographic characteristics in the teachers of primary schools. Age (34.2%) of them were (31-40) years old, (65.8%) of them were female, (68.3%) were diploma of educational level, show highly statistical significant association between teachers' awareness about control of communicable diseases and immunity and vaccination.

Conclusion: Study discovered that all of the items related to awareness of teachers about control of communicable diseases most of their answer were always, half of the items related to awareness of teachers about immunity and vaccination all of their answer were always.

Key words: Teachers, Awareness, Communicable Diseases, Primary Schools

Introduction

Infectious diseases, often known as communicable diseases, are disorders brought on by the invasion of body by particular microorganisms such viruses, bacteria, fungi, and parasites. Those illnesses that can be passed from one person to another directly or indirectly are referred to as communicable diseases. Children frequently contract infectious diseases, which can transfer quickly from one person to another [(1)]. Main causes of death worldwide remain communicable diseases, which account for a significant portion of the annual death toll (approximately 4–5 million deaths). They are more prevalent in underdeveloped nations because they are found specifically in environments that favor transmission, such as crowded living quarters or inadequate cleanliness [(2)]. Physical contact with sick people is one of

the many different ways that a communicable disease can be spread. These organisms can spread through food, drinks, human fluids, infected items, and inhalation of airborne particles [3]. In schools and other childcare settings, communicable disease illnesses are frequent. Socioeconomic factors may make epidemics among schoolchildren more likely in these circumstances [4]. Children's education is one of a community's most important investments and serves as the primary foundation for its progress. They represent the greatest hope for the foreseeable future [5]. A kid's educational experience can be negatively impacted when the youngster becomes ill due to a communicable disease, which can also lead to absenteeism in the classroom [6]. Teachers are in a position of great power. Their example-setting conduct and beliefs about what defines good health have a direct impact on the health notions that their kids at school embrace. They are interested in boosting certain facets of health, such as raising the self-esteem of their students, imparting social skills, and preventing sickness [7]. Iraq's health environment has been harmed by years of war, making the country a hotspot for infectious diseases. For instance, due to poor sanitary conditions and a general lack of hygienic care, Iraqi school employees, faculty, and students are exposed to an excessive number of diseases on a regular basis in educational settings. Second, a general lack of information and awareness of the dangers of communicable diseases hastens the current health catastrophe. Thus, infection control in the school environment has advanced to previously unheard-of levels as a result of the increased danger of catching a communicable disease, and to protect the personal safety of students, instructors, and staff in Iraq, legal and ethical rules have been devised in an effort to supplement and apply medical protocols. It has become essential to determine the method of transmission of the various types of infectious agents and improve awareness among teachers, particularly those who teach health-related subjects, in order to identify communicable diseases that pose a considerable risk to both students and teachers [8]. Study aimed to assess teachers' awareness about control of communicable diseases, assess awareness of teachers about immunity and vaccination, and find the relation between demographic characteristics and teachers' awareness.

Materials and Methods

Study Design: descriptive cross-sectional study that was carried out between the March 2022 to September 2022.

Setting of Study: The study was conducted in primary schools of Al-Swaira city which include (7 primary schools) to assessment teachers' awareness about control of communicable diseases in primary schools, according to table (I)

Table (I) Distribution of the study primary schools and the sample of teachers

	Name of school	No. of teachers
1	Al-Swaira	30
2	Al-Ma'areb	18
3	Al-Nahrain	17
4	Al-Sondus	12
5	Al-Faw	15
6	Al-Taherat	16
7	Al-Ekhawa	12

Study Sample and Sampling Technique: the sample of study were included all primary school teachers (males and females). Sampling technique to selection teachers were convenience sample of (120) teachers from (7) primary schools out of (25) in Al- Swaira city.

Study instrument: The data was collected through used questionnaire for assess the teachers' awareness about control of communicable diseases in primary schools. A questionnaire format was used for data collection, which consisted three parts; the first part concerned with teachers' socio- demographic characteristics of (age, gender, marital status, and education level), years of experience in teaching, and Have you participated in courses and seminars on communicable diseases. The second part is interested in teachers' knowledge of communicable diseases, including teachers' understanding of contagious diseases and how to prevent them (28) items, third part is concerned teachers' knowledge toward immunity and vaccination (25) items.

Data Analysis: The data analysis approaches were used in order to analyze and assess the results of the study under application of the statistical package (SPSS) ver. (23): Frequency distributions, percent and Chi-square. A P-value of less than or equal to 0.05 was considered statistically significant.

The items of teachers' awareness were rated on three level Likert scales; Always, Some time, and Never, and scored as 1, 2 and 3, respectively [(9)].

Results

Table (1) Distribution of study sample according Socio-Demographic characteristics of teachers
F = Frequency, % = Percentage.

Age	F	%	Gander	F	%
21-30	7	5.8%	Male	41	34.2%
31-40	**41**	**34.2%**	**Female**	**79**	**65.8%**
41-50	38	31.7%	**Total**	**120**	**100%**
50- and more	34	28.3%	**Educational level**	**F**	**%**
Total	**120**	**100%**	Preparatory	5	4.2%
Marital status	**F**	**%**	**Diploma**	**82**	**68.3%**
Single	8	6.7%	Bachelor	32	26.7%
Married	**100**	**83.3%**	MSc and PhD	1	0.8%
Divorced	6	5%	**Total**	**120**	**100%**
Widow	6	5%	**Experience years**	**F**	**%**
Total	**120**	**100%**	1-5	10	8.3%
			6-10	25	20.8%
			11-15	26	21.7%
			16 and more	**59**	**49.2%**
			Total	**120**	**100%**

Results of this table reveal of (120) teachers from socio-demographic characteristics; (34.2%) of them were (31-40) years old, (65.8%) of them were female, (83.3%) were married, (68.3%) were diploma of educational level, and (49.2%) of them were (16 and more) experience years.

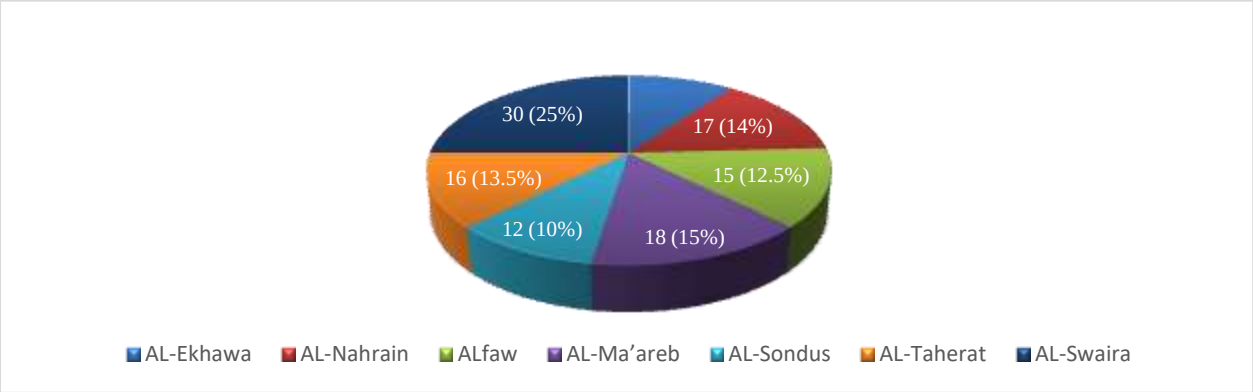

Figure [1]: Work place of participated teachers in school

This figure shows the work place of teachers in school, that represents the highly percentage Al-Swaira school 30 (25%), while Al-Ma'areb school 18 (15%), Al-Nahrain school 17 (14%), Al-Taherat school 16 (13.5%) and Al-Faw school 15 (12.5%). The low percentage are 12 (10%) of Al-Ekhawa and Al-Sondus school respectively.

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Table (2) Teachers' awareness about control of communicable diseases

No.	Items	Always		Some time		Never	
		F	%	F	%	F	%
1	Suppose viruses, bacteria, fungus or parasites cause infectious diseases	**89**	**74.2%**	27	22.5%	4	3.3%
2	Think infectious or transitional diseases were named because they spread from person to person	**76**	**63.3%**	30	25%	14	11.7%
3	Communicable disease – a disease passed from an infected human or animal to a healthy person directly or indirectly through an animal, bug, or NS-living environment	**61**	**50.8%**	52	43.3%	7	5.8%
4	The infectious agent and its sources, how the agent is conveyed to host, and the host are critical elements in controlling infectious diseases.	**81**	**67.5%**	30	25%	9	7.5%
5	Infectious diseases account for about half of all deaths	51	42.5%	**58**	**48.3%**	11	9.2%
6	Carrier — somebody who carries sickness and spreads germs to others, but may not display symptoms	**65**	**54.2%**	45	37.5%	10	8.3%
7	Any person or animal who makes contact with an infected person may get infected	**72**	**60%**	42	35%	6	5%
8	Contamination is the presence of a pathogen or NS-living element on the body	**65**	**54.2%**	43	35.8%	12	10%
9	Disinfection – direct chemical or physical eradication of pathogens	**85**	**70.8%**	24	20%	11	9.2%
10	Epidemic - An excess of illness in a community or region	**76**	**63.3%**	35	29.2%	9	7.5%
11	Think notifying health authorities of certain disorders affecting students is a crucial teaching obligation	**87**	**72.5%**	23	19.2%	10	8.3%
12	Think it's important to allow sick students and school workers periodic respite	**84**	**70%**	23	19.2%	13	10.8%
13	Think it's the teacher's responsibility to know the transmission, causes, types, symptoms, and incubation time of infectious diseases	**92**	**76.7%**	20	16.6%	8	6.7%
14	Think teacher training on transitional diseases is important for guiding healthy, informed pupils and monitoring their health condition and disease reports	**79**	**65.8%**	38	31.7%	3	2.5%
15	Improved nutrition, environmental sanitation, vaccines, and antibiotics ended the epidemic sickness, in my opinion	**76**	**63.3%**	31	25.8%	13	10.8%
16	Due to morbidity and mortality, the following diseases must be neutralized: Epidemic Pneumonia, Viral Hepatitis, Tuberculosis	**77**	**64.2%**	37	30.8%	6	5%
17	Communicable disease that spreads from country to country	**69**	**57.5%**	34	28.3%	17	14.2%
18	Believe the host, environment, and causal agent cause disease	**59**	**49.2%**	47	39.2%	14	11.7%
19	Infectiousness measures a host's ability to infect others	**66**	**55%**	39	32.5%	15	12.5%
20	Suppose infectious diseases are spread horizontally, such as through the air, and vertically, through sperm, placenta, or the vaginal canal after birth	**57**	**47.5%**	52	43.3%	11	9.2%
21	Incubation period is the time between an infection and the onset of symptoms	**68**	**56.7%**	42	35%	10	8.3%
22	Age affects a disease's host. Vaccinations. Person's nutrition. Infected person's innate disease resistance. Germ exposure	**69**	**57.5%**	43	35.8%	8	6.7%
23	Imagine that consuming contaminated water is a major cause of transitional disease transmission in the environment	**73**	**60.8%**	40	33.3%	7	5.8%
24	Prevention is the practice of minimizing illness incidence, disease exposure, or disease vulnerability through individuals' underlying actions. Primary, secondary, and tertiary prevention are used for this aim	**69**	**57.5%**	33	27.5%	18	15%
25	Primary prevention improves health and slows illness progression to reduce infection	**88**	**73.3%**	21	17.5%	11	9.2%
26	Secondary prevention reduces illness incidence by early detection and treatment	**79**	**65.8%**	37	30.8%	4	3.3%
27	Tertiary prevention uses treatment and physical and emotional rehabilitation to lessen illness outcomes	**64**	**53.3%**	42	35%	14	11.7%
28	Surveillance system monitors and observes the prevalence and distribution of disease by collecting information, analyzing tables, and disseminating all pertinent data	**74**	**61.7%**	31	25.8%	15	12.5%

F = Frequency, % = Percentage.

This table reveal that all of the items related to awareness of teachers about control of communicable diseases most of their answer were always.

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Table (3) Teachers' awareness about vaccination and immunity

No.	Items	Always		Some time		Never	
		F	%	F	%	F	%
1	Immunity is the ability to resist infections	**80**	**66.7%**	29	24.2%	11	9.2%
2	Passive and positive immunity come to mind	**61**	**50.8%**	40	33.3%	19	15.8%
3	Passive immunity temporarily protects the body by transporting natural antibodies	**58**	**48.3%**	48	40%	14	11.7%
4	Passive immunity is acquired spontaneously through placenta or breast milk	**63**	**25.5%**	41	34.2%	16	13.3%
5	Active immunity lasts longer than passive immunity	**62**	**51.7%**	46	38.3%	12	10%
6	When illnesses or subclinical illness emerge, active immunity develops (which does not show symptoms and signs)	**55**	**45.8%**	50	41.7%	15	12.5%
7	Imagine immunizations deliver active immunity without sickness	**68**	**56.7%**	37	30.8%	15	12.5%
8	Artificial immunity can be active or passive	**67**	**55.8%**	39	32.5%	14	11.7%
9	The national immunization campaign resulted to individual and societal immunity (General immunity)	**67**	**55.8%**	38	31.7%	15	12.5%
10	Active vaccine is a vaccination by anti-material (infectious agents or vaccine) that causes the host to produce anti-body	**68**	**56.7%**	40	33.3%	12	10%
11	Vaccinated children have active immunity	**64**	**53.3%**	46	38.3%	10	8.3%
12	Vaccines contain live or killed pathogens or poisons to develop antibodies that protect the body against disease	**71**	**59.2%**	43	35.8%	6	5%
13	Think immunizations are voluntary and mandatory	**64**	**53.3%**	45	37.5%	11	9.2%
14	Mandatory immunizations include TB, DPT, and polio	**76**	**63.3%**	37	30.8%	7	5.8%
15	Typhoid, smallpox, rubella, and mumps vaccinations optional	**60**	**50%**	39	32.5%	21	17.5%
16	Immune person has defensive antibodies or cellular immunity from a previous infection or immunization	**67**	**55.8%**	42	35%	11	9.2%
17	DPT comprises diphtheria, tetanus, and whooping cough vaccin es	**60**	**50%**	42	35%	18	15%
18	Vaccinations for polio, measles, rubella, mumps, whooping cough, tetanus, and booster shots	**73**	**60.8%**	31	25.8%	16	13.3%
19	During the school day, booster doses of the typhoid, viral hepatitis, rubella, and mumps vaccines are administered	**70**	**58.3%**	37	30.8%	13	10.8%
20	Assume the hepatitis A incubation time is 15 to 50 days	**67**	**55.8%**	40	33.3%	13	10.8%
21	Imagine hepatitis B virus incubation is 45-180 days before symptoms appear	**58**	**48.3%**	42	35%	20	16.7%
22	Assume typhoid disease incubation period is 1-3 weeks depending on bacteria in contaminated food	**66**	**55%**	35	29.2%	19	15.8%
23	Poliomyelitis incubation duration is 7-14 days	**59**	**49.2%**	46	38.3%	15	12.5%
24	Measles incubation duration is 7-14 days	**64**	**53.3%**	38	31.7%	18	15%
25	Pertussis incubation duration is 7-14 days	**60**	**50%**	43	35.8%	17	14.2%

F = Frequency, % = Percentage.

This table reveal that half of the items related to awareness of teachers about immunity and vaccination all of their answer were always.

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Table (4) Association between Socio- demographic characteristics and teachers' awareness about control of communicable diseases

Items	Socio-Demographic characteristics									
	Age		Gender		Marital status		Educational level		Experience years	
	X^2	Sig.	X^2	Sig.	X^2	Sig.	X^2	Sig.	X^2	Sig.
Suppose viruses, bacteria, fungus or parasites cause infectious diseases	0.07	NS	0.08	NS	0.06	NS	0.08	NS	0.06	NS
Think infectious or transitional diseases were named because they spread from person to person	**0.02**	**S**	**0.008**	**HS**	0.79	NS	0.06	NS	0.06	NS
Communicable disease – a disease passed from an infected human or animal to a healthy person directly or indirectly through an animal, bug, or NS-living environment	**0.03**	**S**	**0.004**	**HS**	0.12	NS	0.53	NS	0.10	NS
The infectious agent and its sources, how the agent is conveyed to the host, and the host are critical elements in controlling infectious diseases.	0.31	NS	0.08	NS	0.83	NS	0.96	NS	0.63	NS
Infectious diseases account for about half of all deaths	0.74	NS	**0.01**	**HS**	0.46	NS	0.73	NS	0.17	NS
Carrier — somebody who carries sickness and spreads germs to others, but may not display symptoms	0.12	NS	**0.000**	**HS**	0.70	NS	0.76	NS	0.06	NS
Any person or animal who makes contact with an infected person may get infected	0.42	NS	0.20	NS	0.37	NS	0.30	NS	0.14	NS
Contamination is the presence of a pathogen or NS-living element on the body	0.18	NS	**0.000**	**HS**	0.10	NS	**0.002**	**HS**	0.16	NS
Disinfection – direct chemical or physical eradication of pathogens	0.74	NS	**0.02**	**S**	0.67	NS	**0.01**	**HS**	0.84	NS
Epidemic - An excess of illness in a community or region	0.21	NS	0.09	NS	0.78	NS	0.32	NS	0.74	NS
Think notifying health authorities of certain disorders affecting students is a crucial teaching obligation	**0.03**	**S**	**0.001**	**HS**	0.87	NS	0.21	NS	**0.03**	**S**
Think it's important to allow sick students and school workers periodic respite	0.41	NS	0.11	NS	0.86	NS	0.34	NS	0.38	NS
Think it's the teacher's responsibility to know the transmission, causes, types, symptoms, and incubation time of infectious diseases	0.34	NS	**0.02**	**S**	0.71	NS	0.19	NS	0.14	NS
Think teacher training on transitional diseases is important for guiding healthy, informed pupils and monitoring their health condition and disease reports	0.36	NS	**0.001**	**HS**	0.87	NS	0.82	NS	0.69	NS
Improved nutrition, environmental sanitation, vaccines, and antibiotics ended the epidemic sickness, in my opinion	0.82	NS	0.08	NS	0.88	NS	0.07	NS	0.30	NS
Due to morbidity and mortality, the following diseases must be neutralized: Epidemic Pneumonia, Viral Hepatitis, Tuberculosis	**0.01**	**HS**	0.10	NS	0.11	NS	0.66	NS	**0.02**	**S**
Communicable disease that spreads from country to country	0.55	NS	0.17	NS	0.41	NS	0.94	NS	0.69	NS
Believe the host, environment, and causal agent cause disease	**0.04**	**S**	**0.04**	**S**	0.38	NS	0.71	NS	0.08	NS
Infectiousness measures a host's ability to infect others	0.24	NS	0.09	NS	0.54	NS	0.09	NS	0.76	NS
Suppose infectious diseases are spread horizontally, such as through the air, and vertically, through sperm, placenta, or the vaginal canal after birth	0.10	NS	0.08	NS	0.88	NS	0.89	NS	0.81	NS
Incubation period is the time between an infection and the onset of symptoms	0.30	NS	0.51	NS	0.77	NS	**0.04**	**S**	0.43	NS
Age affects a disease's host. Vaccinations. Person's nutrition. Infected person's innate disease resistance. Germ exposure	0.34	NS	0.09	NS	0.93	NS	0.64	NS	0.58	NS
Imagine that consuming contaminated water is a major cause of transitional disease transmission in the environment	0.73	NS	0.71	NS	0.46	NS	0.40	NS	0.92	NS
Prevention is the practice of minimizing illness incidence, disease exposure, or disease vulnerability through individuals' underlying actions. Primary, secondary, and tertiary prevention are used for this aim	0.32	NS	**0.000**	**HS**	0.15	NS	0.20	NS	**0.03**	**S**
Primary prevention improves health and slows illness progression to reduce infection	0.21	NS	0.26	NS	0.33	NS	**0.04**	**S**	0.50	NS
Secondary prevention reduces illness incidence by early detection and treatment	0.90	NS	0.36	NS	0.64	NS	0.63	NS	0.87	NS
Tertiary prevention uses treatment and physical and emotional rehabilitation to lessen illness outcomes	0.71	NS	0.11	NS	0.66	NS	0.09	NS	**0.006**	**HS**
Surveillance system monitors and observes the prevalence and distribution of disease by collecting information, analyzing tables, and disseminating all pertinent data	0.12	NS	0.06	NS	0.16	NS	0.36	NS	0.09	NS

Sig.= Significance, X^2= Chi-square value, S= Significance, HS= Highly Significance, NS=Non Significance

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Results out of this table that highly statistical significant association between the items related to the awareness about control of communicable diseases and their age, gender, educational level and experience years.

Table (5) Association between Socio- demographic characteristics and teachers' awareness about immunity and vaccination

Items	Socio-Demographic characteristics									
	Age		Gender		Marital status		Educational level		Experience years	
	X^2	Sig.	X^2	Sig.	X^2	Sig.	X^2	Sig.	X^2	Sig.
Immunity is the ability to resist infections	0.13	NS	**0.001**	**HS**	0.14	NS	0.45	NS	0.06	NS
Passive and positive immunity come to mind	0.74	NS	**0.05**	**S**	0.08	NS	0.78	NS	0.14	NS
Passive immunity temporarily protects the body by transporting natural antibodies	**0.01**	**HS**	**0.001**	**HS**	**0.02**	**S**	0.30	NS	0.15	NS
Passive immunity is acquired spontaneously through placenta or breast milk	**0.001**	**HS**	**0.05**	**S**	0.83	NS	**0.01**	**HS**	**0.008**	**HS**
Active immunity lasts longer than passive immunity	0.13	NS	0.46	NS	0.35	NS	0.40	NS	0.53	NS
When illnesses or subclinical illness emerge, active immunity develops (which does not show symptoms and signs)	**0.05**	**S**	**0.04**	**S**	0.34	NS	**0.04**	**S**	**0.01**	**HS**
Imagine immunizations deliver active immunity without sickness	0.27	NS	0.07	NS	0.73	NS	0.48	NS	0.84	NS
Artificial immunity can be active or passive	0.59	NS	**0.03**	**S**	0.12	NS	0.07	NS	0.65	NS
The national immunization campaign resulted to individual and societal immunity (General immunity)	0.27	NS	0.52	NS	0.97	NS	0.19	NS	0.47	NS
Active vaccine is a vaccination by anti-material (infectious agents or vaccine) that causes the host to produce anti-body	0.85	NS	0.33	NS	0.23	NS	0.41	NS	**0.03**	**S**
Vaccinated children have active immunity	0.21	NS	**0.04**	**S**	0.88	NS	0.81	NS	0.57	NS
Vaccines contain live or killed pathogens or poisons to develop antibodies that protect the body against disease	0.71	NS	**0.002**	**HS**	0.43	NS	**0.001**	**HS**	0.10	NS
Think immunizations are voluntary and mandatory	0.78	NS	**0.01**	**HS**	0.46	NS	0.76	NS	0.66	NS
Mandatory immunizations include TB, DPT, and polio	**0.04**	**S**	**0.05**	**S**	**0.03**	**S**	0.61	NS	0.30	NS
Typhoid, smallpox, rubella, and mumps vaccinations optional	0.20	NS	0.63	NS	0.92	NS	0.30	NS	0.12	NS
Immune person has defensive antibodies or cellular immunity from a previous infection or immunization	0.31	NS	0.32	NS	0.53	NS	**0.05**	**S**	**0.04**	**S**
DPT comprises diphtheria, tetanus, and whooping cough vaccines	0.97	NS	0.59	NS	0.73	NS	0.67	NS	**0.01**	**HS**
Vaccinations for polio, measles, rubella, mumps, whooping cough, tetanus, and booster shots	0.27	NS	**0.007**	**HS**	0.62	NS	0.06	NS	**0.000**	**HS**
During the school day, booster doses of the typhoid, viral hepatitis, rubella, and mumps vaccines are administered	0.90	NS	**0.000**	**HS**	0.18	NS	0.82	NS	0.30	NS
Assume the hepatitis A incubation time is 15 to 50 days	0.82	NS	0.45	NS	0.16	NS	0.07	NS	0.12	NS
Imagine hepatitis B virus incubation is 45-180 days before symptoms appear	0.78	NS	0.07	NS	0.80	NS	0.76	NS	0.76	NS
Assume typhoid disease incubation period is 1-3 weeks depending on bacteria in contaminated food	0.58	NS	0.38	NS	0.51	NS	0.34	NS	0.71	NS
Poliomyelitis incubation duration is 7-14 days	0.10	NS	0.26	NS	0.63	NS	0.68	NS	**0.04**	**S**
Measles incubation duration is 7-14 days	0.73	NS	0.11	NS	0.92	NS	0.13	NS	0.48	NS
Pertussis incubation duration is 7-14 days	0.92	NS	0.06	NS	0.82	NS	0.86	NS	0.09	NS

Sig.= Significance, X^2= Chi-square value, S= Significance, HS= Highly Significance, NS=Non Significance

Results out of this table that highly statistical significant association between the items related to the awareness about immunity and vaccination with teachers age, gender, educational level, marital status, experience years.

Discussion

According to awareness of teachers about control of communicable diseases in the study population most of their answer were always. This results reflect the good knowledge and awareness of ways to deal with communicable diseases and how to control and determine spread. These findings are consistent with other research' findings (10). The level of fear exhibited by the school instructors was found to have a positive correlation with their awareness of preventative and contingency plans, their knowledge of infectious diseases, and the extent to which control measures were adequate. This may suggest that the degree to which one's understanding of infectious disease control expertise increased, simultaneously with one's level of anxiety. There is a risk that the school instructors may make the error of relying more on their perceptions regarding infectious disease control management than on their real understanding of how to respond to infectious disease control knowledge.

Other study (11). Presented the teachers who perceived risk as being higher did implement disease prevention strategies more actively, but they also shown poorer self-efficacy. Additionally, teachers who felt more confident in their abilities responded more quickly. Age was linked to a 0.040 point rise in adoption ratings, and female teachers adopted disease prevention strategies more strongly than their male counterparts. In terms of behavior scores, elementary school teachers performed noticeably better than those at junior high schools, high schools, and universities.

The current study indicate that awareness of teachers about immunity and vaccination in the study population the all of their answer were always. This results reflect the health education campaigns and programs for immunization and vaccination carried out by the Ministry of Health and health teams that provide adequate information about vaccination programs and the desired benefits from them. The study (12), It is essential to emphasize that health education must include sufficient preventative measures in order to encourage healthy lifestyles and cut down, to the greatest extent feasible, the risk of developing current diseases and comorbidities. The results that were obtained, broken down by age group, for the evaluation of teacher training as well as parental knowledge of vaccinations.

The study (13), show in some way, 88.3% of the participants supported vaccines. The risk of side effects was the top justification for not getting vaccinated, but 67.6% of respondents stated that they wanted to avoid contracting diseases that may be prevented by vaccination. Health care providers were the primary information sources (75.3%). Finally, regression analysis revealed that risk perception was strongly correlated with students' and school teachers' inclination to receive recommended immunizations.

The results of present study that highly statistical significant association between the items related to the awareness about control of communicable diseases and their age, gender, educational level, experience years and catch communicable disease. These results reflect the teachers focus on control measure and prevent spread of any communicable diseases especially after Covid-19 and technique that use in schools to promoting students life style without disease. Findings of (14), support these, According to the findings of the study, the majority of teachers (65.8%) had adequate knowledge on the prevention and control of communicable diseases, and the highest percentage of instructors agreed with attitudes toward infectious

diseases. It is necessary to increase teachers' awareness toward the prevention and control of communicable diseases through collaboration with the Ministry of Health and Environment as well as through education programs about communicable diseases and ways to prevent them. Because all teachers who work with children are potentially at risk for contracting communicable diseases, particularly those who have less than ten years of experience, this awareness must be increased.

The study (15), present with a total score of 50.6%, participants from the health colleges considerably outperformed students from the scientific humanities/community colleges, non-specific institutions, and first-year students in all knowledge areas examined (P=0.001).

Furthermore, the results of study that highly statistical significant association between the items related to the awareness about immunity and vaccination with teachers age, gender, educational level, marital status, experience years. These results reflect the teachers have good information about immunity and vaccination according to many courses that doing to learn the important to improve immunity and take vaccine to prevent communicable diseases. The study (16), teachers can help students and parents overcome vaccine hesitancy. Public health policymakers should recognize and promote their understanding, attitudes, and practices regarding vaccines. Unfortunately, policymakers don't prioritize health promotion in schools. Teachers don't know their health promotion role. Studies demonstrate that teachers with health promotion training are more interested in health promotion projects and have a more complete approach to health teaching. It's crucial to promote health in schools. During the coronavirus disease 2019 (COVID-19) pandemic, the involvement of instructors is vital, especially upon school return.

In addition, the study (17), show mothers' knowledge, behavior, and attitude about immunization were found to be significantly correlated. The most popular places to learn about vaccinations were medical institutions (49.5%), followed by online resources (21.3%).

Recommendations

The study recommends that importance of collaboration between the Ministries of Health and Education is emphasized in order to create textbook for students in primary schools about the nature of communicable diseases and how to control them. The textbook should provide adequate explanations of the most significant illnesses in schools along with photos and illustrations, need of holding ongoing training sessions for teachers in all elementary schools on subject of the prevention of communicable diseases and cooperation with the ministry of health and the environment as well as through educational initiatives regarding communicable illnesses and prevention methods, raise teachers' awareness of infectious disease prevention and control.

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