

Assessment of Health Workers Performance at primary Schools in Missan Governorate / Iraq

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المستخلص

الهدف: تقييم أداء عمال الصحة في المدارس الابتدائية في محافظة ميسان من خلال نشاطات المراكز الصحي والملاحظة الميدانية .

المنهجية: أجريت دراسة وصفية عرضيه في 16(50%) مراكز رعاية صحية أوليه و64(10%) مدارس ابتدائية، (تم اختيارها عشوائيا) عينة متعددة المراحل في محافظة ميسان. ثم أستخدم استمارة مراقبه صممت من قبل وزارة الصحة لتقييم أداء عاملي الصحة المدرسية في تقديم خدمات الرعاية الصحية الأولية إلى المدارس ضمن الرقعة الجغرافية لكل مركز، كانت تستخدم لجمع البيانات.

النتائج: أظهرت الدراسة أن هنالك جوانب قصور في بعض المحاور المتعلقة بنشاطات العاملين في مجال الصحة المدرسية. نسبة المراكز الصحية التي تنفذ الرصد الوبائي للأمراض في المدارس موجودة في 40.6%، بينما في 29.6% كانت تنفذ الكشف البيئي في المدارس. قياس الطول والوزن وكذلك الجرعة الوقائية من فيتامين (أ) كانت لا تنفذ في 100% . إضافة لذلك كان 15.6% فقط من المراكز الصحية نفذت فحص أسنان الطلاب وكذلك التنسيق بين وحدة التحصين و وحدة الصحة المدرسية موجود جزئيا في 100% من المراكز الصحية. فحص حدة البصر للطلاب كان يلاحظ في 57.8%.

التوصيات: التنسيق الجيد بين المركز الصحي وإدارة المدرسة. كذلك التنسيق الجيد بين وحدة الصحة المدرسية ووحدة الرقابة الصحية ووحدة تعزيز الصحة في المراكز الصحية. يوصي الباحث إلى التعاون المنظم بين وزارة الصحة وبين المؤسسات التعليمية والبيئية للحفاظ على بيئة المدرسة في مستوى قياسي، وزيادة عدد الدورات والتدريب الطبي وتوسيع مساحة المشاركة لتشمل جميع الموظفين وإدراج موظفي الصحة المدرسية في دورات تدريبية داخل وخارج البلاد. كذلك يوصي الباحث إلى زيادة القوى العاملة في مراكز الرعاية الصحية الأولية، توفير الأطباء وأطباء الأسنان وفاحصو البصر في كل وحدات الصحة المدرسية.

Abstract

Objectives: To assess of health workers performance at primary schools in Missan governorate through health center activities and by local school observation.

Methods: A descriptive cross-sectional study conducted at 16(50%) primary health care centers and primary schools 64 (10%) who where randomly selected

(Multi-stage sample) in Missan governorate. Ministry of health (M.O.H) school health workers performance assessment checklist was designed for observation the performance of school health staff in delivering primary health care services to schools within the geographical area of each center was used for data collection.

Results: The results showed that, there were deficiencies in some school health workers activities. The percentage of health centers that had the epidemiological surveillance for diseases in schools were present in 40.6%, while in 29.6% of primary health centers environmental examination were implemented. The measurement (height, weight, body mass index) and Preventive dose of vitamin (A) in all of health centres were not implemented 100%. In 15.6% of health centers implemented examination of students dental and coordination between immunization unit and school health unit was present partially in 100 % of health centres. The examined visual acuity for students were observed in 57.8%.

Recommendation: Adequate coordination between health centers and schools administrations, An organized co-operation between health, educational and environmental authorities to maintain the environment of school at the standard levels, Increase number of medical training courses and widening the sharing area to involve all staff members and the inclusion of school health staff in training courses inside and outside the country and increase the workforce in primary health care centers. Provision of physicians, dentist and sight checker in each of the school health unit.

Key Word: Assessment, school health, health workers

Introduction

School health is an important branch of community health. According to modern concepts, school health service is an economical and powerful means of raising community health, and more important in future generations ⁽¹⁾.

Importance of school health, it serves a large segment of society, where it is known that 51% of the population is aged under 15 years, and school health services to deal with the age group of 4 years to the age of graduation from college and even enrolled them in Graduate (which it is responsible for more than 20 years) and therefore a third (1/3) of the population provide them with school services ⁽²⁾. The goal of a school health services team is to ensure that students are healthy, in school, and ready to learn ^(3,4). Mobile teams would visit schools probably once or twice a year. They would provide as needed: immunizations, supplements of vitamin A and iodine, treatment for helminthes infections; health nutrition or family planning education; consultation with school health workers, students, parents. They should service all school age children in the community, not just those enrolled ⁽⁵⁾.

Objectives of school health is examination of the students for the purpose of early detection of cases and their treatment, reducing the spread of all communicable diseases in schools, diagnosis of all environmental deficiencies and follow-up their treatment by the relevant authorities and healthy and environmental awareness to all students and educational personnel and workers in schools ⁽²⁾.

Schools are of the important settings for implementation of public health programs which is school health program which include school health services , health instruction& healthful school living ⁽⁶⁾. A coordinated School Health Program (CSHP) requires the collaboration of academic staff and agencies, working together to implement these components for students, staff, and families at a given school site or within a given district ⁽⁷⁾.

assessment of performance of staff is an essential part of evaluation of health program and is a direct means of measuring quality of health care ⁽⁸⁾. Performance is actual conduct of activities to meet responsibilities according to standard; indicates what is actually done and how well it is done ⁽⁹⁾.

The use of the term "performance" focuses attention on the total behavior of an individual in accomplishing a task including their organization, retention and use of specialized knowledge, as well as their attitudes and interaction with other people. It is also assumed that their knowledge, attitudes and skills influence the service provided by them ⁽¹⁰⁾. The public health system's performance is generally evaluated on three criteria; (a) effectiveness, (b) efficiency, and (c) equity⁽¹¹⁾.

Quality assessment is the measurement of the quality of healthcare services. A quality assessment measures the difference between expected and actual performance to identify opportunities for improvement. Performance standards can be established for most dimensions of quality, such as technical competence, effectiveness, efficiency, safety, and coverage ⁽¹²⁾.

Aim of the Study:

To assess of health workers performance at primary schools in Missan governorate through health center activities and by local school observation about:

A- Determination the coverage of components of school health services through health center.

B-Evaluation of the preventive activities i.e.epidemiological surveillance, environmental examination, assessment of nutritional status, dental care organization, immunization services and eye care.

Methodology

Study Design

A descriptive cross sectional study was carried out during the period from 16th November 2012 to 10th January 2013 to assess and observe school health workers performance in primary health care centers and primary schools, The school health units involved in this study were distributed on 16 randomly selected health centers 50% and 64 primary school 10% from Missan Governorate by using a simple random sample technique. The percentage of schools were (1ST Sector 25% , 2nd Sector 12.5% , 3rd Sector 12.5% and 4th Sector 50%), and four schools for each health center are included. Number of health centers selected in sample size were (1ST center 4, 2nd center 2, 3rd center 2, 4th center 8). The School health workers included in this study had different educational levels (Figure 1). The school health staff included 36 health workers (Table 4.1).

Setting of the Study

The site of the study was done in 16 primary health care centers and 64 schools in Missan Governorate, (Missanis one of the governorates of Iraq, It is located in the southern part of Iraq and bordered by the governorates of Wasit from the north and Basra in the south and Dhi- Qar province to the west and the international border with Iran in the east ⁽¹³⁾).

Sample of the Study

Sample Selection:-The sampling technique used in this study was multi-stage sample, Data were collected by using two stages sample random design:

1- The first stage of selection was – health centers selection, centers were selected by simple random sample for 50% from health centers,

2- The second stage of selection was schools selection, the primary schools were labeled and selection was simple random sample for 10% from primary school separately.

Methods of Data Collection

All samples of the primary health care centers were visited weekly by the researcher according to the time table arranged for this purpose. Researcher also participate the school health team to visit elementary schools selected by at random for each health center to observe the activities provided to the students by check list provide by ministry of health (M.O.H). The data collection was made by observation list from Iraq ministry of health, designed for observation the performance of school

health workers in delivering primary health care services to schools within the geographical area of each center, including: epidemiological surveillance, environmental examination, assessment of nutritional status, dental care organization, immunization services and eye care.

Statistical analysis was done by using the SPSS version (17).The findings were arranged through descriptive statistical measurements (frequency and percentage). For the performance checklist, the performance indicators were calculated using Iraqi ministry of health checklist.

Results

Table 4.1: The Distribution of Health Sectors& centers, manpower, and their schools.

Respondent Demographics		No. Censers	%
Number of Sectors	1 ST Sector	4	25.0
	2 nd Sector	2	12.5
	3 rd Sector	2	12.5
	4 th Sector	8	50.0
Total		16	100
Number of Schools belonging to the centers	<10	2	12.5
	10--19	4	25.0
	20--29	7	43.7
	=>30	3	18.8
Total		16	100
Number of Health Workers each belonging to the centers	1	1	6.2%
	2	12	75.0%
	3	2	12.5%
	5	1	6.2%
Total		16	100

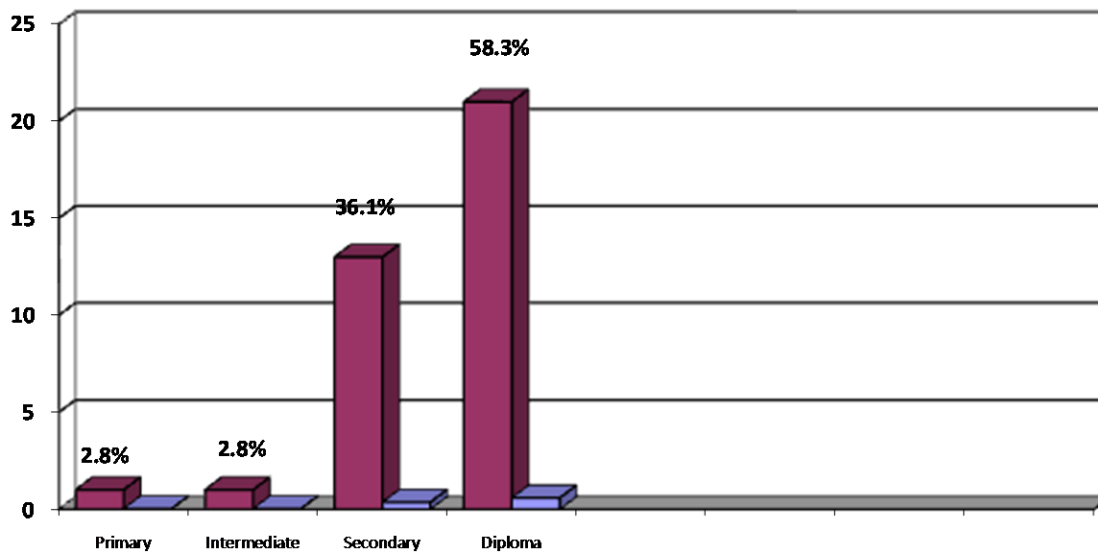


Figure 1: Distribution of school health staff according to educational level.

Figure 1: Showed that school health workers included in this study had different educational levels, and classified into four categories; Primary and Intermediate (5.6%), Secondary (36.1%) and with Diploma (58.3%)

Table 4.2: Distribution of epidemiological surveillance in schools by observation.

Variables of Health Services		Yes		No		Sometimes	
		No.	%	No.	%	No.	%
1- Epidemiological surveillance	Screening and ensure that all relevant activities	26	40.6	32	50.0	6	9.4
	Environmental examination	19	29.7	25	39.1	20	31.2

Table 4.2: Showed that screening and ensure that all relevant activities was present in 40.6% while it was not present in 50.0% of health centres.

In 29.6% of primary health centers environmental examination were implemented while in 39.1% not implemented of health centers.

Table 4.3: Assessment of nutritional status.

Variables of Health Services		Yes		No		Sometimes	
		No.	%	No.	%	No.	%
2- Assessment of nutritional status	Measurement of (height, weight, body mass index)	0	0	64	100	0	0
	Preventive dose of vitamin(A)	0	0	64	100	0	0
	Educating of educational staff	4	6.2	57	89.1	3	4.7

Table 4.3: Shows that measurement (height, weight, body mass index) and Preventive dose of vitamin (A) in all of health centres were not implemented 100%.

Educating of educational staff was present in 6.2% of health centres, while it was not present in 89.1% of health centres.

Table 4.4: Distribution of health services including (Dental care organization and Immunization services).

Variables of Health Services		Yes		No		Sometime	
		No.	%	No.	%	No.	%
3- Dental care organization	Examination of students dental	10	15.6	14	21.9	40	62.5
	Educate students about the care of your oral health and dental	12	18.8	28	43.8	24	37.4

	Documented cases examined and the cases that need to refer to a primary health care center for treatment.	34	53.1	30	46.9	0	0
4- Immunization services	Coordination between immunization unit and school health unit	0	0	0	0	64	100
	Monitoring of the immunization status of new students in schools	0	0	56	87.5	8	12.5
	Give of vaccines during visit to students	0	0	64	100	0	0

Table 4.4: Showed that dental examination of students was observed in 15.6%, while it was not observed in 21.9% of health centres. Educate students about the oral and dental care health was observed in 18.8% of health centres, while it was not observed in 43.8%. In 53.1% of health centres, documented cases examined and the cases that need to refer to a primary health care center for treatment was present, while it was not present in 46.9%.

The monitoring of the immunization status of new students in schools all of health centres was not present in 87.5%. Regarding give vaccines during visit all of health centres it were not present in 100%. Coordination between immunization unit and school health unit was present partially in 100% of health centres.

Table 4.5::Distribution of health services including (Eye Care).

Variables of Health Services		Yes		No		Sometim es	
		No.	%	No.	%	No.	%
5- Eye Care	Examined visual acuity for students	37	57.8	23	35.9	4	6.3
	Educate students about wearing eyeglasses	20	31.2	44	68.8	0	0
	Diagnosing of eye abnormalities	37	57.8	23	35.9	4	6.3
	Measures are being taken for the visually impaired documented	21	32.8	35	54.7	8	12.5

Table 4.5: Showed that 57.8% of the examined visual acuity for students were observed, while not observed in 35.9% of health centres. Educate students about wearing eyeglasses were present in 31.3%, while they were not present in 68.7% of health centres.

Diagnosing of eye abnormalities was in present 57.8%, while it was not present in 35.9% of health centres. Measures taken for the visually impaired documented were 32.8% implemented, and 54.7% not implemented.

Discussion

1-Epidemiological surveillance:

This study found that the screening and surveillance and ensuring all relevant activities when transitional disease was detected in school through coordination

with school administrations, 40.6% of the health centers were present. These results disagreed with the results obtained by Moghadam *et al.* 2012, in Iran, who showed that 70% of health centers have the screening and surveillance and ensure all relevant activities⁽¹⁴⁾. This disagreement between both studies was attributed to the lack of school health workers, their knowledge about diseases surveillance in schools and that the Directorate of Health of Missan Governorate lacks training for school health workers on the programs of communicable diseases surveillance in school. Directorate of Health of Missan Governorate was responsible for follow-up of health facility activities and training of manpower, as well as the lack of focusing on medical physicians and health workers on the importance of discovering diseases and reporting process.

This study showed that regarding the environmental examination, only 29.7% of the health centers were implemented. These results disagreed with the results obtained by Hamzah in Diwaniya, Iraq 2007, who showed that 100% of primary health care centers implemented the environmental examination⁽⁶⁾. Also these results disagreed with the results obtained by Moghadam *et al.* 2012, in Iran, who showed that 67% of health centers were implemented for environmental examination⁽¹⁴⁾. This disagreement between both studies was attributed to the lack of school health workers, lack of programs for follow up and assessment of environmental examination and supervision in the primary health care centers, the lack of focusing of medical physicians on the importance of supervision on school health units works, as well as the inadequate training for school health workers on the programs of school health services (environmental examination) by the Directorate of Health of Missan.

2-Assessment of nutritional status:

Our study showed that the distribution of vit.A to pupils (Preventive dose of vitamin(A)) and Measured (height, weight, body mass index) all of health centres were not implemented 100%. This percentage was because the student receives Preventive dose of vitamin(A) during the first visit to primary health care center for registration at school according to the instructions of the Ministry of Health. These results agreed with the results obtained by Fathy in Mosul, Iraq 1996, who showed that the absence of any prophylactic programme in the academic year 1995-1996, included giving prophylactic dose of vit- as A capsule for first class pupils, and no attempt was done by the health centers schools⁽¹⁵⁾. Also these result disagreed with the result of WHO survey, in European Region, 2010 which

showed that the measured (height and weight) were implemented in 84%⁽¹⁶⁾. The difference in the availability between both studies was attributed to the unavailability of vit.A in a sufficient amounts or absence of follow up by the supervisory health officer, in addition to funds sometimes are allocated for expensive equipment and devices, while much needed public health services such as water supply, nutritional state or logistic support for vaccination programs, go without funds.

Educating staff educational and school administrations and students through training courses and periodic field visits to schools about the impact of nutritional status of the pupils on their scientific and practical it were 6.2% of health centres. This lower percentage was attributed to a wide variation in numbers of schools in catchment's area and lack of school health workers. These results were higher than the results obtained by Hamzah in Diwaniya, Iraq 2007, who showed that 37% of primary health care centers have Educated of educational staff⁽⁶⁾. The difference in the availability between both studies was attributed to the inadequate coordination between health centers and schools administration, to deficiency in means and materials required in execution of activities, as well as inadequate knowledge for school health workers on the assessment of the nutritional status.

3-Dental care organization

In the present study the results showed that examination of elementary school students to take care of the organization of the teeth in their schools and arrange a structured timetable approved by school administrations to refer cases to the health center discovered, 15.6% of the health centers was present. These results disagreed with the results by Augustine I. Ojugo. 2005 in Nigeria⁽¹⁷⁾, who showed that the examined Dental were implemented in 18%. This disagreement was attributed to the variation between the inadequate cooperation and coordination between Dentists and school health unit in primary health care centers, shortage of dentist's cadre, Performance was inadequate for dentists during visit of schools, in addition to absence of transportation especially for far schools and inadequate coordination between health center and schools administration.

Documented cases examined and the cases that need to be referred to a primary health care center for treatment was 53.1% of the health centers. These results were lower than the results obtained by Hamzah in Diwaniya, Iraq 2007, who showed that 100% of primary health care have examination of elementary school students to take care of the organization of the teeth⁽⁶⁾.

While regarding education of students about the oral and dental care health was observed in 18.8% of health centers. These result disagreed with the result found by Samuel Adu-Mireku. 2003 in Ghana ⁽¹⁸⁾, who found that school health education about the dental and oral health were implemented in 96.96%. This disagreement between both studies was attributed to the same reasons which lead to the decreased percentage of the of elementary school students to take care of the organization of the teeth.

4-Immunization services

This study found that coordination between immunization unit and school health unit was present partially in 100 % of health centres. While giving of vaccines during visiting of all of health centres were not present in 100%. This low percentage was because of the coordination can be only through vaccination campaigns of students. These result disagreed with the result of M.O.H. A survey in 2012-2013 showed that the health centres coordination between immunization unit and school health unit were present ⁽¹⁹⁾. This disagreement was attributed to the absence of follow up in PHCC for new instructions. Also might be due to absence of permanent staff or persons in charge, while the study found some school health units run by health workers, in which they manage more than one program in the same time.

This study revealed that monitoring of the immunization status of new students in schools and completely the vaccination of those didn't who complete their vaccinations, and according to the schedule prepared by the Expanded Programme on Immunization 87.5% all of the health centers were not presentsuch as Presence of scar of BCG vaccine among vaccinated new pupils at health centers, vaccine have failure of scar, this percentage because the failure of vaccination technique which denote lack of essential skills by health workers and absence of follow up. These results were higher than the results obtained by Hamzah in Diwaniya, Iraq 2007, who showed that 77.3% of primary health care centers, presence BCG vaccine among new pupils (6). The difference in the availability between both studies was attributed to the variation between the school health staff in their attention and knowledge about the importance of using of vaccinations manual in the implementation of all school health activities in a scientific manner.

5-Eye care:

The study showed that the examined visual acuity for students, and diagnosing of eye abnormalities were present in 57.8% of health centres, educate students about wearing eyeglasses were present in 31.3%, and 32.8% measures are being taken for the visually impaired were implemented. This low percentage was attributed to the lack of the opticians and inadequate experience of health workers about the vision screening. These results disagreed with the result of M.O.H. A survey in 2012-2013 showed that the measures which were being taken for the visually impaired were present⁽¹⁹⁾. While these results disagreed with the result of WHO survey, in European Region, 2010 who showed that the examined visual acuity were implemented in 68%⁽¹⁶⁾. The difference between both studies was attributed to the inadequate training of school health workers about programmes of eye health care, no physicians in school health units of all health centers, as well as deficiency of health workers in comparison with schools number for each PHCC.

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