

Assess Role of School Nurse Regarding Professional Standards at Primary Schools in Benha City

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Abstract: Professional standards are authoritative statements of the duties that school nurses should completely perform and aim to fulfillment the profession's obligation to provide a means for improving the quality of care. **The purpose of the study** was to assess the role of school nurses regarding professional standards in Benha City. **Design:** Descriptive research design was utilized to conduct the study. **Setting:** The present study was conducted in (109) Governmental Primary School. **Sample** A purposive sample of school nurses working in the previous settings were included (n= 100 school nurses). **Instruments** Two tools were used in this study. **The first instrument:** A structured interviewed questionnaire to assess school nurses' knowledge and their reported practices about professional standards. **The second instrument** was an observational checklist to assess the healthy school environment. **Results** 71.0% of the studied school nurses had a good knowledge of the professional standards and 56.0% of them had unsatisfactory practices. There was a positive statistical significant relation between total knowledge of school nurses and their practices regarding professional standards. **Conclusion** more than two thirds of school nurses had a good total knowledge score regarding school health program and professional standards, while more than half of them had unsatisfactory total practices score. **Recommendations:** School nurses need in service training program about professional standards.

Keywords: School Nurses, Professional Standards, Primary School.

Introduction

School nursing is a specialized practice of nursing that advances the well-being, academic success, and lifelong achievement and health of student. Student's health is directly related to his or her ability to learn. Children with unmet health needs have a difficult time engaging in the educational process. The school nurse supports student success by providing health care through assessment, intervention, and follow-up for all children within the school setting. The school nurse addresses the physical, mental, emotional, and social health needs

of students and supports their achievement in the learning process (NASN, 2010). The standards of school nursing practice and their accompanying competencies describe and measure the expected level of school nursing practice and professional performance. These standards are authoritative statements of the duties that school nurses should completely perform and the purpose of these standards is to fulfill the profession's obligation to provide a means of improving the quality of care (NASN & ANA, 2011) School nurse promote healthy school environment

through monitoring immunizations records, report communicable diseases, such as tuberculosis, as required by law, monitor the school's physical environment e.g., playground safety) and monitor the school's emotional environment e.g., the social and emotional well-being of students(CDC, 2017).

Significance of the study:-

Over 60 % of young students are bullied in schools while nearly 30 % miss school or experience educational difficulties. These are worrying numbers and so we are heartened at the Government's plans to strengthen the role of school nurses in supporting young students. School nurses are ideally positioned to play a pivotal role in the lives of students. School nurses are well placed to identify ill students earlier and provide prompt treatment for them, also implement preventative support to reduce the negative impact on the health and wellbeing of students by initiating support for the whole family. School nurses provide many health services for students including providing preventive and screening services, health education and assistance with decision-making about health, and immunization against preventable diseases. In addition, school nurses may provide promotion the health of school staff and help the family of the student to access health services

(Department of Health and Social Care, 2013).

Purpose of the study:

The purpose of this study is to assess role of school nurses regarding professional standards in Benha City through:

- Assessing the school nurses knowledge about school health standards.
- Assessing the school nurses' practices regarding professional standards. -
- Assessing the obstacles that affect school nurses from application of school health standards.
- Assess the school environment for its cleanliness, safety and health

Research questions

- 1) What is the role of school nurses regarding fulfilling professional standards?
- 2) What are the school nurses knowledge about school health program?
- 3) Is there a relationship between school nurses knowledge and their practices regarding school health standards?

Methods:-

Research design:-

Descriptive research design was utilized to conduct the study

Setting:-

All primary governmental schools in Benha City such as (Gamal El- Dein El-Afghani, Ebn- Khaldon, Hoda Shahrawy , Taha Hussin ,ect).

Sampling:-

A purposive sample of school nurses working in the previous settings were included (n= 100 school nurses).

Instruments

Two instruments were used for data collection:-

Instrument one:-A structured Interview

questionnaire was developed by the investigator based on literature review. It was written in simple Arabic language and classified into four parts as the following:-

- **The first part:-** It was concerned with the socio-demographic characteristics of school nurses and composed of six questions (age, educational level, experience, marital status, income of school nurses, and courses that school nurses had been trained).
- **The second part:-** It concerned with school nurse,s knowledge regarding school health program and school health standards. It contains 20 questions , 5 questions related to school health program and 15 question related to school health standards, such as (Definition, purposes andcomponents of school health program, school health

services,school health staff, definition, purposes and components of school health standards, definition of comprehensive screening, school stages, types of infectious disease, immunization given, types of injuries, pharmacy contents, components of healthy environment, definition of school health education, its (objectives, scope, methods and topics).

Total scoring system of nurses, knowledge:

<50%	Poor
50 - <75%	Average
≥75%	Good

- **The third part:-** It concerned with school nurses reported practices related to professional standards. It composed of 10 procedures, each question contains 3 steps. The number of steps 30. It included (nurses role for preparation of screening, nurse role during screening, nurse role for laboratory tests, nurse role after screening, nurses role for infected student, when the infected student back to school, with the other students, immunization giving, first-aid, assessing school environment).

Total scoring system of nurses reported practices :-

<50%	Unsatisfactory
≥50%	Satisfactory

- **The fourth part:-** It concerned with the obstacles that affect school nurses from application of the professional standards and composed of 5 questions. It included factors related to school environment, school nurses, student and their parents, school management and school workers).

Total scoring system of obstacles:-

<50%	Poor
50 – <75%	Average
≥75%	Good

Instrument two: Observational

checklist sheet:- It was used to assess school environment that namely school building, school playground, water sources, school bathroom, school classes, waste disposal and psychosocial environment.

Total scoring system of observetional checklist sheet:-

<80%	Unhealthy
≥80%	Healthy

Procedures:

1. A letter was obtained and delivered from the Dean of the Faculty of Nursing, Benha University directed to the Health Insurance Manegement. After obtaining the

approvals from the Health Insurance Manegement for conducting the present study, the investigator started to communicate with the study subjects, and explained the aim of the study and gather the necessary data for the study.

2. The investigator met the nurses individually in every school. The actual field work was carried out from September to December 2017. The investigator visited the Primary Schools in Benha City daily from Sunday to thursday
3. An interview was done with nurses using instruments one and two. Data was collected from each nurse from 10am to 1pm.

Ethical consideration:

An oral consent was used to obtain the subjects agreement to participate in the study, after explaining the aim of the study. Privacy and confidentiality was assured, ethics, value, culture and beliefs were respected.

Pilot study:

The pilot study was carried out on 10% of study sampie (10 school nurses), to test the clarity, practicability and applicability of tools. Modification of the tools included repbraing of some questions and

rearrangement of the questions sequences. After refinement and modification, the final form of the tools were developed, the time of each visit was determined. Then all nurses involved in the pilot were excluded later from the study.

Statistical design:

All data collected data were organized, tabulated and analyzed by using the Statistical Package for Social Science (SPSS) version 23 which was used frequency, percentage, mean and standard

deviation for qualitative descriptive data, then other statistical tests such as chi-square test (X^2) was used for relation tests.

Associations between items were considered as the following:

Statistical significance was considered at:-

P-Value >0.05 Not Statistically Significance

P-Value <0.05 Statistically Significance

P-Value <0.001 Highly Statistical Significance

Results:-

Part I: - Socio-demographic characteristics of the school nurses.

Table (1): Percentage distribution of school nurses regarding to their socio-demographic characteristics (No =100)

Socio-demographic characteristics	%
Age in years	
30 - <40	59.0
40 - <50	25.0
50 - ≤60	16.0
Mean ± S.D	40.4± 5.8
Education	
3 years Nursing Diplomat	80.0
Technical Institute of Nursing (5 years)	20.0
Experience	
10 - <20 years	40.0
≥ 20 years	60.0
Mean ± S.D	19.7 ± 5.34
Marital status	
Married	70.0

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Widow	30.0
Income / month	
Enough and safe	20.0
Enough	50.0
Not enough	30.0

Table (1):- Shows that **59.0%** of school nurses aged > 30 years with mean age **40.4±5.8**, **80%** of them had 3 years nursing diplomat, **60%** of them had experience from ≥ 20 years, **70**

Figure (1): Percentage distribution of school nurses regarding to their training courses (No. =100)

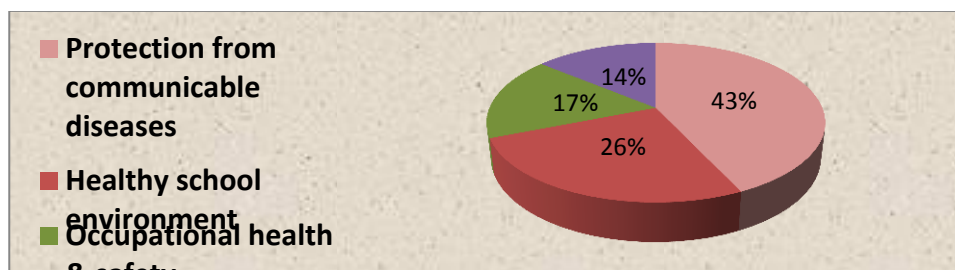


Figure (1):- Shows that **43.0%** of school nurses had trained on protection from communicable diseases, **26.0%** of school nurses trained on healthy school environment, **17.0%** trained on occupational health & safety and only **14.0%** trained on CPR & First-aid.

Table (2): Percentage distribution of school nurses knowledge regarding school health program (No. =100)

Nurses, knowledge regarding school health program	Complete & correct answer	Correct & Incomplete answer	Don't know
	%	%	%
Definition	70.0	20.0	10.0
Its objectives	74.0	17.0	9.0
Its components	77.0	13.0	10.0
School health services	75.0	15.0	10.0
School staff members	75.0	12.0	13.0

Table (1):- Shows that **77.0%** of school nurses had a complete correct answer about the components of school health program, **70.0%** of them had complete correct answer about definition of school health program and **74.0%** of them had complete correct answer about objectives of school health program. Also **75.0%** of school

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nurses had a complete correct answer about members that providing these services. school health services and school staff

Figure (2): Percentage distribution of school nurses' total knowledge regarding school health program (No. =109)

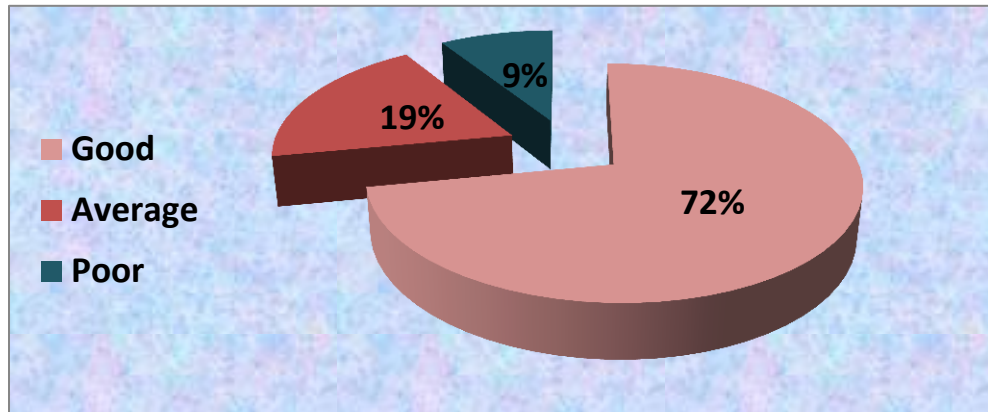


Figure (2):- Shows that **72.0%** of school nurses had a good knowledge about school health program, while **19.0%** of them had average level of knowledge and **9.0%** of them had poor knowledge about school health program.

Table (3): Percentage distribution of school nurses regarding reported practices about professional standards (No. =100)

School health screening	Done	Not done
Nurses role for preparation of health screening	%	%
Prepare parents	37.0	63.0
Prepare students	45.0	55.0
Prepare screening room	39.0	61.0
Nurse's role during screening		
Record the disease history of student	41.0	59.0
Observe any disease symptoms	43.0	57.0
Measure height & weight	51.0	49.0
Nurse's role at laboratory tests		
Wash hands and give student the container	0.0	100.0
Record the result of the test	0.0	100.0
Referral of students to the hospital	100.0	0.0
Nurse's role after screening		
Record the results of screening	57.0	43.0
Cases referral to hospital	53.0	47.0
Cases follow-up	50.0	50.0

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Table (3):- Shows that, **55.0%** of school nurses don't prepare the students for doing screening, **51.0%** of them measure height & weight of students during screening, **100.0%** of them do referral of student to hospital for doing the laboratory tests, **50.0%** of nurses don't follow-up.

Table (4): Percentage distribution of school nurses regarding reported practices about professional standards ((No. =100)

prevention & control of communicable diseases	Done	Not done
	%	%
Nurse's role for infected students		
Isolate and health educate	50.0	50.0
Observe the other students	49.0	51.0
Disinfect tools of the infected student	39.0	61.0
Nurses role when the infected student back to school		
Ask the student to provide health report	44.0	56.0
Ask the student to enter the class directly	52.0	48.0
Referral of student to school doctor	39.0	61.0
Nurses role with the other students.		
Provide health education	47.0	53.0
Follow-up& observe the others	45.0	55.0
Provide the recommended vaccine	51.0	49.0
Nurses role during giving immunization		
give the immunization directly	50.0	50.0
Provide health education during giving immunization	47.0	53.0
Guide students with side effect	50.0	50.0

Table (4):- Shows that, **61.0%** of school nurses don't disinfect the tools of the infected students and **52.0%** of them ask the student to enter the class directly after her/him backing to school, **51.0%** of them provide the recommended vaccine to the other students, **53.0%** of them don't provide health education during giving immunization.

Figure (3):- Percentage distribution of the school nurses regarding to their role in first-aid (No =100)

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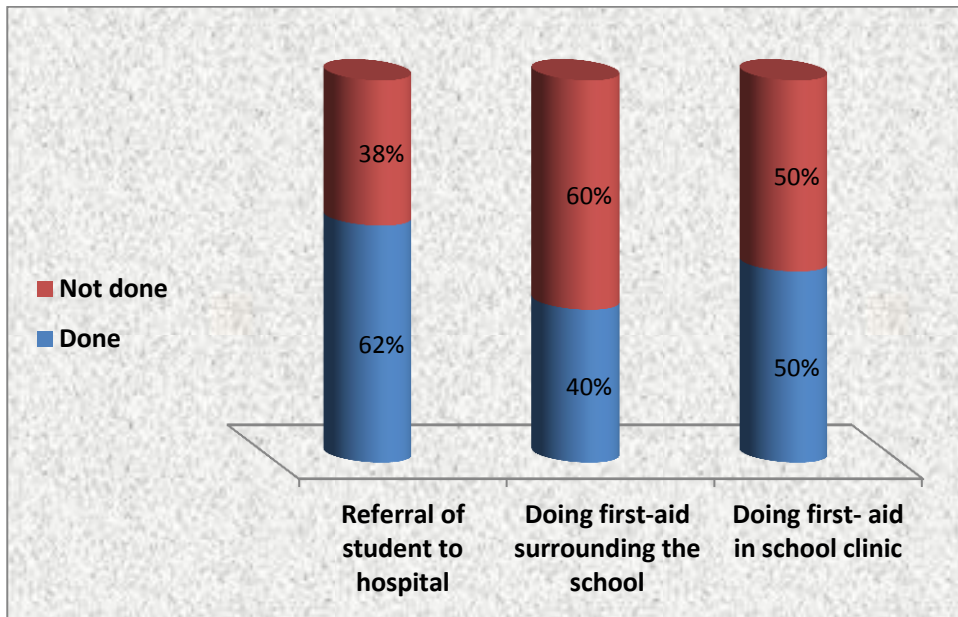


Figure (3):- Reveals that **62.0%** of school nurses do referral of student to hospital to do first-aid.

Figure (4):- Percentage distribution of school nurses regarding to their role in assessing school environment (No =100)

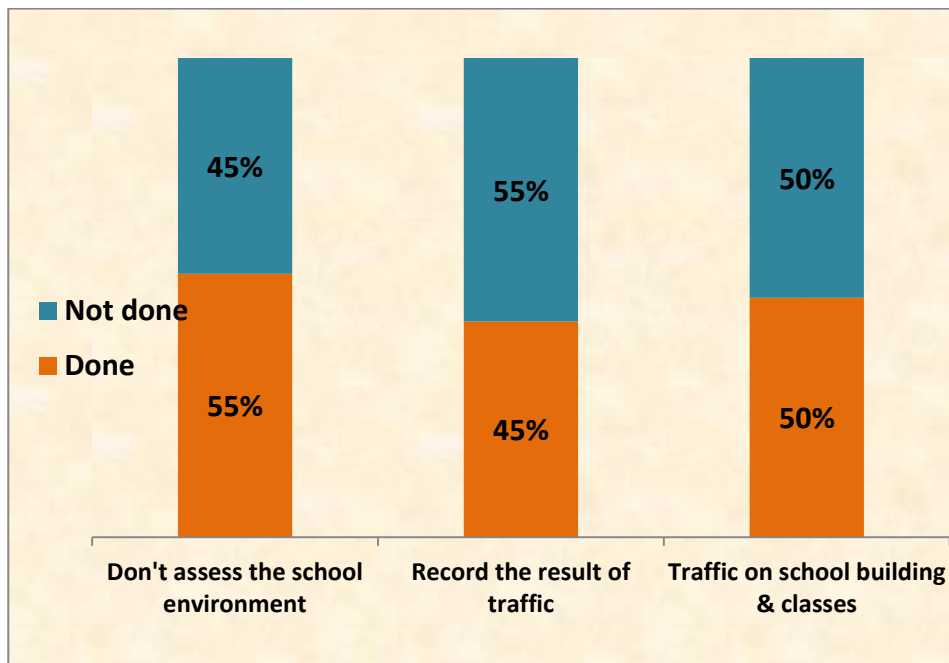


Figure (4):- Shows that **55.0%** of school nurses don't assess the school environment

Figure (5): Percentage distribution of school nurses regarding total reported practice about professional standards (No =100)

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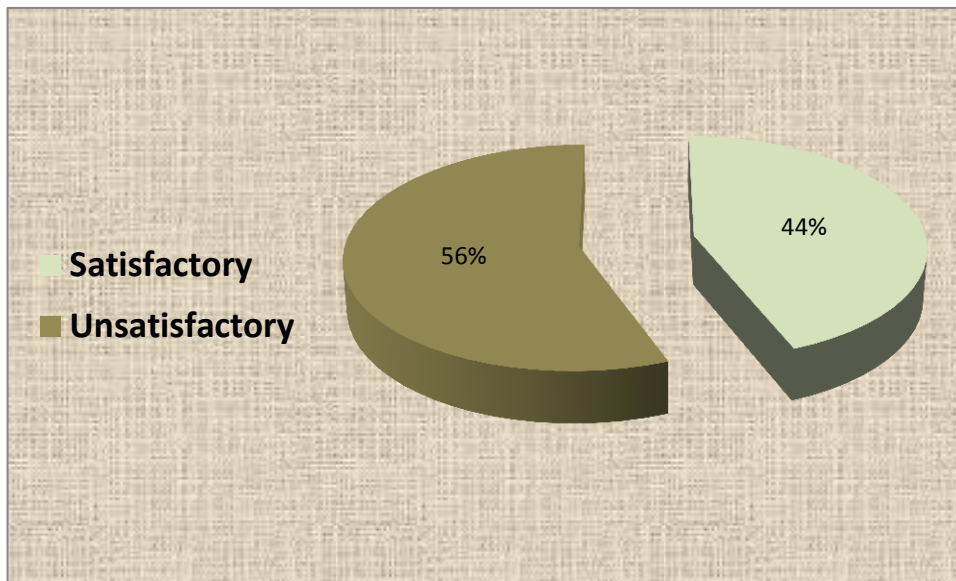


Figure (5): Illustrates that **56.0%** of school nurses had unsatisfactory role regarding professional standards and **44.0%** of them were satisfactory.

Table (3): Relation between total knowledge & total reported practices of school nurses regarding professional standards

Total reported practice score	Total knowledge score	
	R	p-value
	.21	.03*

Table (3): Reveals that there was positive statistically significance relation between total knowledge and total practices of school nurses regarding professional standards ($P < .05$).

Discussion:-

School nursing has changed over the years to meet the evolving health needs of students. The number of students with health needs, the number of students at risk for health concerns, and the complexity of their health needs have increased. Social determinants, such as (living in poverty and lack of access to care have also impacted students' health). So the National Association of School Nurses developed a framework and standards which explain the practices that school nurses are expected to perform completely ([Viner et al., 2012](#)). The present study revealed that less than quarter of school nurse had trained on

Cardiopulmonary Resuscitation "CPR" and first-aid (**figure 1**); This finding was disagreement with the study about "School nurse emergency preparedness training in New Mexico" by **Robert et**

al. (2010), who reported that 95% of school nurses had trained in Basic Life Support "BLS" and emergencies. This may be due to occurrence of most injuries of students outside the school, so the school nurse doesn't see the injury to deal with it and their parents prefer going to hospital.

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Regarding to school nurses' knowledge about school health program, the present study revealed that more than two thirds of school nurse had a correct and complete knowledge about definition and objectives of school health program, more than three quarters of school nurses had a correct and complete knowledge about components of school health program (**table, 2**). This result was in disagreement with the study about "Evaluation of training program for school nurses in Assuit" by **Al Magrabi (2009)**, who reported that, only 13.9% of school nurses had good knowledge about school health program and 69.4% of them obtained average score about school health program. This may be due to the positive effect of continuous training courses received by school nurses.

The present study revealed that more than two thirds of school nurses had good knowledge about school health program (**figure 2**). This finding was inconsistent with the study about "A study of the role of the nurse in the school health program" in Alexandria by **Mohammed (2007)**, who reported that nearly 50.0% of nurses working in schools had inadequate knowledge as regard to school health program. This may be due to sufficient training courses of school nurses about school health program. Regarding to school nurse practices toward professional standards as reported by them (**table, 3**), the present study revealed that, more than half of nurses don't prepare the students for doing screening. This finding was inconsistent with the study about "School nurses: Polices, working practices, roles and value perception" in Birmingham by

Croghan et al. (2012), who reported that nurses' performance was satisfactory regarding to their role in comprehensive screening. This may be due to increased number of students and lack of time.

The present study also revealed that all of nurses do referral of student to hospital for doing the laboratory tests. This is an indicator that there is no school clinic including laboratory tests, so school nurses do referral of student to Insurance Hospital for doing it.

The present study revealed that half of nurses don't follow-up the cases after screening. This result was incongruent with the study about "School nurses role in the management of children with type2 diabetes" in United States by **Jane (2017)**, who reported that the majority of school nurses manage and follow-up the students with chronic illness. This may be due to most nurses do referral of students to hospital after discovering any diseases and their parent follow-up the health status of their children in hospital by the physician.

The present study revealed that, about three fifths of school nurses don't disinfect the tools of the infected students and don't do referral of the student to school doctor after her/him backing to school (**table, 4**). This result was in disagreement with the study about "Protecting children and youth with disabilities in the schools" in New York by **Gibbons et al., (2013)**, who that two third of school nurses educate the parents of infected students to disinfect the tools and referral of the student after backing to school to school physician. This may be

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due to lack of tools and supplies in school clinic and absence of school physician.

The present study revealed that about two third of school nurses don't do first-aid for students (**figure, 3**). This result was in disagreement with the study about "Returning to school after traumatic brain injury" in United States by **Paul & Pam (2014)**, who stated that 85.0% of school nurses don't do first-aid every times. This may be due to occurrence of most injuries out the school times and lack of emergency tools and supplies in school clinic.

The present study revealed that more than half of school nurses don't provide health education during giving immunization. This result was in disagreement with **Nadeau et al. (2016)**, who reported that two thirds of school nurses educated the students with side effects of immunization giving. This may be due to lack of time and increased number of students.

The present results revealed that more than half of school nurses don't follow-up and observe the other students when there is an infection. This finding was in contrast with **Jane (2017)**, who reported that that the majority of school nurses manage and follow-up the students with chronic illness. This may be due to that school nurses isolate the infected student and direct him to home for caring.

The present study revealed that, more than half of school nurses don't assess the school environment (**figure 4**). This finding was in contrast with the study about "Assessment of health habits among governmental school pupils" in Cairo by **Shenouda et al. (2005)**, who reported that school nurses had unclear knowledge about

their role inside the school environment. This may be due to lack of time and many of school nurses represent assessment of school environment is the role of school workers.

Conclusion:

More than two thirds of school nurses had a good total knowledge score regarding school health program and professional standards, while more than half of them had unsatisfactory total practices score about their role regarding professional standards.

Recommendations:-

In-service training programs directed for school nurses toward all aspects of care provided for school children to raise the standards of care.

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