Achieving the standard of the school health nursing process in elementary schools of Kerman, Iran

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ABSTRACT
Background: Considering the school nursing standards, which is the most important and vital element of the school health team, can be a fundamental step toward solving the current and future problems of the school and society health. The present research was done with the goal of determining the current situation of the standard of the school health nursing process in elementary schools of Kerman, Iran.

Materials and Methods: The present research is a quantitative, descriptive study and was done between the years 2009 and 2010 through conducting an opinion poll. In this study, first the international standards of school nursing were searched and extracted from informational sources. Then, a questionnaire was designed based on the standards of the school nursing process and its related indicators in 6 areas. This questionnaire had two parts. The first part had the respondents’ demographic information, answering was optional, and the second part of the poll was about each of the indicators. After preparing the questionnaire and determining its validity and reliability, it was distributed among the 120 samples (60 health trainers and 60 of Kerman’s elementary school staff), and their opinions were gathered and analyzed through statistical–descriptive analysis.

Findings: The results of this research demonstrate that approximately all the above mentioned standard areas in the country were applied (98%). The rate of acquiring the standard of nursing process was high (90%) in some areas (Investigative area) and low (30%) in some other areas (diagnosis area).

Conclusions: In total, the rate of acquiring the majority of indicators of nursing process standards has an average percentage. It is suggested to use schools health professionals to raise the indicators of the standard of the school nursing process (the indicators which had low or average acquiring rate), and to raise the performance quality.

Key words: Community health nursing, standard, nursing process, school health

INTRODUCTION
The four parts comprising the wide range of social and health services in developed societies are: general health performance, person and family health performance, the performance of medical and paramedical professions, and school health. School health is one of four main services performance and is known as fundamental and health – related sections in the series of general health issues in developing countries.[1] Therefore, school health is one of the important branches of community health.[2]

According to the International Health Organization, school health consists of: the series of actions which are done to diagnose, provide and raise the physical, mental, social and intellectual status of student health, and staff who are in some way connected to students.[3] The other point of views on the necessity of paying attention to school health include:

• The large number of population comprising the
services: At the present time, more than 15 million students are studying in more than seventy thousand institutes in Iran, the mentioned population is about one fourth of the country’s whole population and this number alone can prove importance of this issue.

- The vulnerability of the people affiliated with the program.
- The role of the movement and social making which is the result of true performance of these services: school health programs are necessary because they can prevent the costly and irreparable effects which may happen in the next generation.
- The real reported statistics in this field.
- The ease of service presenting, which contains less hardship and less expensive school health services.\(^2\)

School health services are individual health services formerly defined as children medical examinations, but today they have widely developed as the general caring health in school years.\(^4\)

School health activities in most countries of the world are done by the school nurse. This was first performed by Lillian Wald in the U.S. and gradually extended; at the present time about 40 thousand and 56 nurses are working in the schools of this country.\(^5\) The American Academy of Pediatrics (AAP) presents the nurse as the head of the school health group and the doctors (preferably pediatrician), school consultant psychologists, school staff (the manager and teachers) as the members of the team.\(^6\) In the school health team, in addition to the above mentioned cases, a social worker, school religious and training staff are also members. Sometimes the child and family professional nurse can present more services than the school nurse. Therefore, this nurse, as a member of the school health team, has a vital and important role in providing health services.\(^7,8\) According to the American Nursing Association (ANA) and the National Association of School Nurses (NASN), school nursing is seen as professional nursing in the field of student health, successful education and the fulfillment of student health during their life. Therefore, the school nurse guides students toward natural growth and raises their safety and health levels.\(^9,10\) From the American school nurses point of view, the following methods are suggested for improving and raising school health:

- Employing professional nurses in schools.
- Utilizing and presenting health services in schools by these professional nurses.
- Nurses, with at least a BSc degree, have the special school nursing certification.
- At least one nurse for every 750 students in state schools.

- At least one nurse for every 225 students in average (level) schools.
- At least one nurse for every 125 students in schools, which have a large number of disabled students,\(^11,12\) which increased about 28\% in the U.S. in 1994.\(^4\)

School nurses have not found their own real position in country schools in order to make the universal standards practical in the field of school health,\(^12\) and health trainers are nonprofessional or are regularly changing.\(^13\) Therefore, the aim of the present study was to discuss the standard of school nursing processes after investigating the rate of achieving this standard to distinguish the necessity of paying attention to this important affair to the related authorities.

Professional school nursing standards in 2001 were investigated and reformed by the National Association of School Nurses (NASN). These standards compel all nurses to use the nursing process and its phases (evaluation, analysis, planning, performing and evaluation).\(^14\) Therefore, the nursing process has a special importance among school nursing standards.

As children’s health is the base of a number of international organizations activities, elementary schools have a fundamental role in planning and training children’s true health behaviors.\(^15\) Considering the importance of school nursing and its effect on the quality of school health services, this research was done with the goal of acquiring the standards of the school nursing process. These standards include investigative standards, determining the purpose, planning, performance and evaluation in Kerman elementary schools.

**MATERIALS AND METHODS**

This is a quantitative, descriptive research, which is done by the field finding method. The research population consisted of health trainers, training managers, and teachers, who were working in Kerman elementary schools. The research area was the first and second districts of the Kerman Ministry of Education. The reason for choosing the above mentioned population for the research was that the American Academy of Pediatrics (AAP) introduces school consultants and school staff (the manager and teachers) as the members of health team.\(^9\) Therefore, the researcher by choosing these groups from the school health team hoped to gain near to reality information in this field. The sample population consisted of 60 school health trainers, and 60 managers and training teachers from the first and second regions of
the Kerman Ministry of Education, considering the inclusion criteria of the study.

These criteria consisted of being employed in the ministry of education (officially or by contract), having a valid two year college diploma course and BSc in the field of health sciences, and at least 5 years working experience in schools. For the managers and training teachers having more than 8 to 10 years of working experience in elementary schools was necessary.

In this research, the standards of school health were established by referring to library sources, and searching the internet, books and valid articles.

All gathered topics were translated, investigated and then were compiled in the form of a questionnaire to be used in 6 standard areas of the school nursing process. (The nursing process phases: investigation, diagnosis, determining the purposes, planning, and performance)

At the end of the questionnaire a part was also allocated for presenting suggestions and ideas.

After preparing the questionnaire, for determining its content validity, it was given to at least 10 university lecturers, health authorities, and school staff face-to-face and the necessary explanations were also presented and they were asked for their ideas for reforming the questionnaires. For determining the questionnaire’s reliability, the test–retest method was used. In order to determine the correlation between the results of the first and second measuring, the Spearman correlation was used; the result was 0.93. After collecting the ideas, the frequency of each standard performance and their indicators were calculated and analyzed.

The gathered information were categorized, summarized, and then analyzed using SPSS software and descriptive statistics.

**FINDINGS**

**Participants’ ideas about Standard Investigation**

1. Using a regular and constant method to collect the school health information by asking parents, students, and staff and also reviewing health files and health–curing health centers (such as forming health files for school population and school area and all students) (74.56%)

2. First aid helps at the times of falling on the ground, shock, turmoil, emergency, and sifting (for the cases of optometry, audiometric, and etcetera), and periodical medical examinations such as annually controlling the students’ height, and mouth and teeth health for collecting the health information are done and followed (93.85%).

3. In special cases of students who have chronic mental or physical problems, use several drugs at the same time, or do not have educational progress, consult with their colleagues or peers and mental consultants. (69.29%)

4. Through forming effective relationships with the parents, students and school staff encourage them to develop their relationships. Information gathering methods would be taught to them so that they will become knowingly active in the (physical and mental health) fields and support themselves and others in this respect (71.92%).

**Diagnosis Standard**

1. It compiles nursing diagnosis on the basis of a suitable pattern (39.47%).

2. Reaching the true recognition through:
   - consulting with others (colleagues, consultants and other specialists)
   - True information analyzing
   - Investigation of student history (through the previous health files, interviewing parents and etcetera) (76.31%).

3. Using these true findings and new findings, which can be a guide for future generations, in school health (subjects which happen rarely or have not happen up to now would be analyzed and recognized truly) (30.70%).

**Goal Determination Standard**

4. It determines the short-term expected goals for students, parents, staff, and etcetera (43.85%); 3.50% of the research participants believe that this indicator is not applied in our country.

5. It determines the long term expected goals for students, parents, staff, and etcetera; 0.87% of the research participants believe that this indicator is not applied in our country.

6. It evaluates the determined goals from the language, cost [reachable sources] point of view, and etcetera, reasonably and realistically (57.01%).

**Planning Standard**

1. Managing health planning with educational plans (62.29%)

2. compiling a suitable interventional program for health eliminating of all students, parents, staff, and etcetera; (74.56%)

**Participants’ ideas about Standard Planning**

1. Managing health planning with educational plans (62.29%)

2. compiling a suitable interventional program for health eliminating of all students, parents, staff, and school participants and considering the following points at the time of program compiling:
   - The need priorities
- Regional policies
- Reachable sources
- Duration
- The students’ age and abilities

3. Asking for help from professional colleagues in planning school health and consultant specialties in special cases such as individual health planning for students who have special physical and mental problems and etcetera (55.26%).
4. Registering the interfering plans in health files or existing related degrees (75.43%).
5. Establishing the regular plan for school periodical health examinations and inspections, and establishing these inspections in an orderly system (77.19%).

Performance Standard
1. Performing the planned intervention by considering health needs (57.89%).
2. Coordinating the presentation of services and their performance. It asks for help from others in performing the special cases, for example he asks the teacher for help in performing the students, who has chronic disease, medicinal plans, and etcetera (80.70%).
3. Supporting (such as iron pill distribution among female students, plan daily mild distribution and having the supporting role in performing the plans (92.10%).
4. Establishing the interfering performance in the existing documents and health files (81.57%).

Evaluation Standard
1. Using a suitable evaluation system for the endurance of the performed plan for students, parents and staff (For example, using the suitable check list, or determining the indicator and performance summary graphs) (39.47%).
2. Envisioning the program according to evaluation results and promoting the schools’ health programs (43.85%).

Registering the evaluation results in the related documents (60.52%).

DISCUSSION
- The rate of achieving the standard (nursing process performance) in some areas was about 90%, for example, in “Investigating standard” area; while in some areas such as “Recognition standard” achievement was about 30%. Moreover, the rate of achieving the other areas in the nursing process performance is as follows:
  - “Investigating Standard” of performing the points of views with the highest percentages (70%-90%), has the highest rate of achieving the general health file, making periodical medical examinations, and mouth health and teeth at schools and activities such as first aid and screening (such as optometry and audiometric tests , etc) at schools and may be of the most important reasons of these indicators high percentage; in spite of all this in indicator number 3 which is “ special activities related to students who have chronic mental or physical problems and have to use several drugs or cooperate with specialist peers and mental consultants about these specialist students who have problems in educational progress compared with other indicators, had a lower percentage .

In developed countries this applied standard has brought forth special expert discussions and school nursing has moved forward in this direction. Moreover, nursing process performance is one of the school nursing duties. However, in our country reaching this standard can be decreased because school nursing with its special duties still does not have any suitable position.

- Most of the indicators related to diagnosis standard, have a low percentage in both groups and generally, except in the case of indicator number 2 with the rate of (76.31%), which “checking the students’ health files by school health trainer”.

Professional diagnosis is one of the steps to performing the nursing process. Its performance by school health nurses will have better results. According to the study, students’ health behaviors at schools were not very desirable. There was no meaningful difference between schools with health trainer and without health trainer.

One reason for this lack can be using non–specialists in the field of school health. For acquiring the true recognitions indicator at schools, using school health nursing specialists may be one of the best ways.

When health training is done by specialists and all students are trained, surely they will play an important role in promoting school health and the health behaviors differences in schools with and without school health nurse.

- The rate of achieving the planning standard had relatively a high percentage. In indicator number 1, coordinating managing health programs and educational programs, according to all participants ideas in all selected schools, is complete and sometimes somehow done. Indicators number 2 and 3 include the school nurse considering the above mentioned points in planning, and asking for help from professional colleagues and specialist
consultants in planning for students who have special physical and mental problems such as chronic diseases, and etcetera; the rate has been very low.

Researches done in the field of students’ chronic diseases have shown that school staff and those who care for school health have a low knowledge about widespread diseases such as Asthma.[18] In developed countries, for children with chronic disease, or children who are dependent on equipments and technology school nurse not only can do a nurse’s fundamental duties (such as gastrostomy; suction, etc.), but also they can undertake all which these needy children want to do. Anyhow in most cases nurse can help teacher in providing these student’s needs.

- Performance standard from rate of achieving point of view has a high percentage. The rate of achieving indicator 3, which manages and supports school nurses in presenting services such as distributing daily milk, and iron pills to female students, is 92.10%. This percentage demonstrates the school health trainers’ participation in performing school health plans.[15,19]

- 39.46% believe that achieving rate to evaluation standard in the indicator 1, which is using a suitable evaluation system in school health performed program’s endurance, is complete; 43% believe that it is done somewhat, and 17.54% believe that it is not done. Although, there was a better and higher achieving rate in the other indicators of this standard, revision in school health programs according to the evaluation results and registering these results in the related degrees, it seems that the evaluation system has a problem in using a suitable evaluation.

According to the existing evidence each region of health program evaluation is personal and does not follow any special performance and rule. In some places checklists are used, and in other places case evaluation, forming scientific evaluation committees, and etcetera are used.[10]

Suggestions
1. Presenting nursing process standards in school health programs.
2. Using health experts in the schools.
3. Health trainers’ familiarity with nursing process performance phases.
4. All aspects of related organizations’ cooperation and coordination and their activities in improving the health quality at schools.
5. Changing the working time of health trainers at schools to full time.

Investigating the achievement of the standards of school nursing process in other parts of Iran.

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