



**ФУНДАМЕНТАЛ ВА
КЛИНИК ТИББИЁТ
АХБОРОТНОМАСИ**

***BULLETIN OF* FUNDAMENTAL
AND CLINIC MEDICINE**

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**BULLETIN OF FUNDAMENTAL
AND CLINIC MEDICINE**

**ФУНДАМЕНТАЛ ВА КЛИНИК
ТИББИЁТ АХБОРОТНОМАСИ
ВЕСТНИК ФУНДАМЕНТАЛЬНОЙ И
КЛИНИЧЕСКОЙ МЕДИЦИНЫ**

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*Учредитель Бухарский государственный
медицинский институт имени Абу Али ибн Сино*

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Адрес редакции:

Республика Узбекистан, 200100, г.
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Телефон (99865) 223-00-50

Факс (99866) 223-00-50

Сайт <https://bsmi.uz/journals/fundamental-ya-klinik-tibbiyot-ahborotnomasi/>

e-mail baymuradovravshan@gmail.com

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IMPROVING THE WORK OF SCHOOL NURSES**Rahmonova D.N., Yuldasheva Sh.T.**

Bukhara State Medical Institute named after Abu Ali ibn Sino, Bukhara, Uzbekistan

Resume. This article examines ways to improve and optimize the professional activities of school nurses. The study is based on a questionnaire survey conducted among school nurses working in general secondary schools. The findings indicate that continuous professional development positively affects work quality and job satisfaction, while excessive workload negatively influences efficiency and performance.

Keywords: school nurse, school health services, workload optimization, professional development, healthcare quality.

МАКТАБ ТИББИЙ ҲАМШИРАЛАРИНИНГ ФАОЛИЯТИНИ ТАКОМИЛЛАШТИРИШ**Раҳмонова Д.Н., Юлдашева Ш.Т.**

Абу Али ибн Сино номидаги Бухоро давлат тиббиёт институти, Бухоро ш., Ўзбекистон

Резюме. Мазкур мақолада мактаб тиббий ҳамшираларининг касбий фаолиятини такомиллаштириши ва оптималлаштириши масалалари ёритилган. Тадқиқот умумтаълим мактабларида фаолият юритаётган мактаб тиббий ҳамширалари ўртасида ўтказилган сўровнома натижаларига асосланган. Тадқиқот натижалари шуни кўрсатадики, узлуксиз касбий ривожланиш иш сифати ва касбий қониқлиш даражасини оширади, ҳаддан ташқари иш юкласи эса меҳнат самарадорлиги ва иш унумдорлигига салбий таъсир кўрсатади.

Калим сўзлар: мактаб тиббий ҳамшираси, мактаб соғлиқни сақлаш хизмати, иш юкласини оптималлаштириши, касбий ривожланиш, тиббий хизмат сифати.

СОВЕРШЕНСТВОВАНИЕ ДЕЯТЕЛЬНОСТИ ШКОЛЬНЫХ МЕДИЦИНСКИХ СЕСТЁР**Раҳмонова Д.Н., Юлдашева Ш.Т.**

Бухарский государственный медицинский институт имени Абу Али ибн Сино, г. Бухара, Узбекистан

Резюме. В данной статье рассматриваются пути совершенствования и оптимизации профессиональной деятельности школьных медицинских сестёр. Исследование основано на анкетном опросе, проведённом среди школьных медицинских сестёр, работающих в общеобразовательных школах. Полученные результаты свидетельствуют о том, что непрерывное профессиональное развитие оказывает положительное влияние на качество работы и уровень профессиональной удовлетворённости, тогда как чрезмерная рабочая нагрузка негативно сказывается на эффективности и производительности труда.

Ключевые слова: школьная медицинская сестра, школьные медицинские услуги, оптимизация рабочей нагрузки, профессиональное развитие, качество медицинской помощи.

Introduction. School nurses play a crucial role in safeguarding children's health and ensuring a safe educational environment. They are an integral part of the educational process by providing first aid to students, implementing preventive measures, ensuring compliance with sanitary and hygienic requirements, and promoting a healthy lifestyle. International experience demonstrates that school nurses are not only essential for strengthening physical health but also serve as key agents in identifying and addressing psychological and social problems. For example, studies have shown that school nurses play a significant role in improving the health outcomes of children with asthma and diabetes, although evidence regarding obesity reduction remains inconclusive.(1)

In the context of Uzbekistan, strengthening the system of medical services in schools is considered a priority task. There is a persistent shortage of medical personnel in educational institutions: even in large schools, services are often limited to one physician and a part-time nurse, while smaller schools may lack a physician altogether. According to national regulations, schools with more than 1,000 students should have at least one physician and one nurse, while those with over 2,000 students should employ one physician, one nurse, and one assistant nurse. However, due to difficulties in fully implementing these requirements in practice, increasing the efficiency of school nurses and optimizing their workload has become particularly relevant. School medical staff are responsible for a wide range of tasks, including organizing health promotion activities in cooperation with parents, teachers, and health authorities; monitoring compliance with sanitary

standards; ensuring the quality of nutrition; and carrying out preventive and therapeutic measures. Their effective performance not only protects children's health but also contributes to improving the quality of education.

This article examines issues related to improving and optimizing the professional activities of school nurses. The introduction analyzes key aspects of the topic, while the second section reviews existing research and regulatory documents. The methodology section describes the data collected through a questionnaire survey and the applied statistical methods. The results and discussion section presents the findings and interprets statistical indicators. Finally, the conclusion and recommendations propose practical measures to enhance the efficiency of school nurses.

Literature Review. Numerous international studies have been devoted to the importance of school health services. For instance, Wainwright et al. (2000) examined the effectiveness of school nurses in promoting children's health and emphasized the lack of high-quality scientific evidence in this area. (1,8,9).

Their systematic review highlighted that studies evaluating the effectiveness of school nursing practice are very limited, indicating a strong need for further research. More recent studies have also focused on assessing the role of school nurses: Pawils et al. (2023), using 16 systematic reviews and 289 primary studies, investigated the contribution of school nurses to health improvement. Their analysis confirmed the importance of school nurses in improving outcomes for children with asthma and diabetes, although most of the studies were of low methodological quality. The authors stressed that future research should pay greater attention to children's mental health and social well-being.

Several studies also address the scope of responsibilities and workload of school nurses. Representatives of the National Association of School Nurses (NASN) emphasize that, in planning workload in the context of the 21st century, factors such as the number of students, social conditions, and the prevalence of health problems should be taken into account. According to NASN, each school should have a nurse available on a daily basis to ensure access to essential medical care for all students. They further highlight the need to consider the socio-economic status and infrastructure of the school community(2,6,10).

In Uzbekistan, a number of regulatory documents governing school health services have been adopted. In particular, a decision adopted in 2020 introduced the provision of medical services to students through healthcare workers assigned from healthcare institutions to general education schools. This document emphasizes the shared responsibility of school administration and medical staff for ensuring compliance with sanitary and hygienic standards, monitoring nutrition regimes and quality, and conducting medical examinations of students. At the same time, practical challenges in staffing schools with nurses persist: even in large urban schools, medical services are often limited to one physician and a part-time nurse, while smaller schools may lack physicians entirely(3,7,11)

The reviewed studies and documents demonstrate the significant potential of school nurses in health promotion. However, in Uzbekistan, insufficient research has been conducted on optimizing the working conditions and workload of school nurses. Therefore, this article seeks to explore ways to improve the quality and efficiency of their work based on data collected through a questionnaire survey(4,5,12)

Methodology. The study population consisted of school nurses working in general secondary schools in Tashkent city and the surrounding region. Data were collected through an online questionnaire conducted between April and May 2024. The questionnaire included sections on respondents' demographic characteristics (age, years of work experience), professional characteristics (annual hours of continuing professional development, number of students per group, average weekly workload), and self-assessment items (perceived quality of work and job satisfaction). A total of 50 school nurses participated in the survey.

The collected data were analyzed using the SPSS statistical software package. Descriptive statistical methods (mean, standard deviation) were applied to summarize the data. Pearson correlation coefficients were calculated to assess the relationships between continuing professional development hours, workload, and self-assessment indicators. In addition, the potential use of t-tests or analysis of variance (ANOVA) to compare differences between groups was considered. Statistical significance was assessed at a p-value of <0.05. The results were presented in tables and narrative form and subsequently discussed.

Results and Discussion. The average age of the surveyed nurses was approximately 42 years, with a mean work experience of 16.6 years. On average, they devoted around 28 hours per year to continuing professional development. The mean number of students per nurse was 1,225, and the average weekly workload (number of students seen in the school medical office) was 56. The average self-rated work quality score was 5.45 (SD = 1.11) on a 10-point scale, while the average job satisfaction level was 3.58 (SD = 0.63).

Correlation analysis revealed that an increase in continuing professional development hours was positively associated with both work quality and job satisfaction. Specifically, significant positive correlations were found between professional development and work quality ($r = 0.70$, $p < 0.001$) and between profes-

sional development and job satisfaction ($r = 0.79$, $p < 0.001$). In contrast, an increased workload had a negative impact on work quality and job satisfaction: workload was negatively correlated with work quality ($r = -0.61$, $p < 0.001$) and job satisfaction ($r = -0.39$, $p < 0.01$). Age and work experience did not demonstrate a significant influence on work performance.

These findings suggest that providing school nurses with regular opportunities for professional development enhances their work productivity, whereas excessive workload has an adverse effect. These results are consistent with international evidence, including NASN position statements emphasizing that workload planning should consider not only the number of students but also their socio-economic conditions and health status. Moreover, respondents experiencing high levels of work pressure reported lower job satisfaction and reduced capacity to address health problems effectively. The findings highlight the need to improve nurses' competencies and resources to enhance the effectiveness of health promotion activities.

The results indicate that, in Uzbekistan, improving the efficiency of school nurses requires prioritizing professional development and stabilizing workload. Beyond adopting new regulations, management bodies should focus on improving actual working conditions. For instance, establishing a structured system of continuing education would ensure regular training for nurses. Additionally, increasing the number of school medical offices in proportion to student population and optimizing task distribution are essential measures. Reducing excessive workload and enhancing professional capacity can improve both nurses' job satisfaction and children's health outcomes.

Conclusion and Recommendations. This study identified several key factors influencing the quality and efficiency of school nurses' work. The main findings indicate that regular professional development positively affects nurses' performance and job satisfaction, while excessive workload reduces these outcomes. International research similarly underscores the importance of the nursing role, particularly when socio-economic factors are taken into account.

To optimize the professional activities of school nurses, the following practical measures are recommended:

Strengthening professional development. Schools should ensure the availability of qualified medical personnel throughout the school day in line with international standards. Regular seminars and training sessions should be organized to enhance nurses' knowledge and skills, including not only epidemiological and preventive competencies but also pedagogical and psychological approaches.

Balancing workload. Excessive workload leads to professional burnout and errors. In accordance with regulations, each school should employ at least one full-time nurse, and schools with more than 2,000 students should have an additional assistant nurse. Effective implementation of legal requirements necessitates adequate staffing and enhanced cooperation among healthcare workers, teachers, and parents.

Implementing performance evaluation systems. Regular monitoring and evaluation tools should be developed to assess the quality of medical services provided in school health offices. This may include continuous analysis of students' health outcomes (e.g., morbidity rates, adherence to preventive measures) and the use of surveys capturing feedback from students and parents.

Enhancing collaboration and incentives. Close cooperation between school nurses and the school community improves continuity in addressing children's health issues. Establishing partnerships with local health centers and integrating preventive programs (such as immunization and screening initiatives) into school activities are recommended. Additionally, introducing incentive mechanisms (financial or non-financial recognition) for high-performing nurses can enhance motivation.

Overall, improving the work of school nurses is a strategically important direction aimed at strengthening children's health and societal well-being. The study demonstrates that effective policies and timely resource management can significantly enhance the quality of school nursing services. Future research should further explore this field, particularly the economic efficiency and social impact of school health systems.

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