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IMPROVING WATER, SANITATION AND HYGIENE (WASH) CONDITIONS IN RURAL GEORGIAN SCHOOLS: CHALLENGES AND IMPACTS IN ADJARA REGIONS

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წყლის, სანიტარიისა და ჰიგიენის (WASH) პირობების გაუმჯობესება საქართველოს

სოფლის სკოლებში: გამოწვევები აჭარის რეგიონში

თბილისის სახელმწიფო სამედიცინო უნივერსიტეტი, თბილისი, საქართველო
ლ.საყვარელიძის სახელობის დაავადებათა კონტროლისა და საზოგადოებრივი ჯანმრთელობის
ეროვნული ცენტრი, თბილისი, საქართველო

რეზიუმე

სკოლებში უსაფრთხო და ადეკვატური წყალმომარაგება, სანიტარული პირობები და ჰიგიენური ჩვევები მოსწავლეებისთვის სრულყოფილი საბაზო განათლების შესაძლებლობის წინაპირობაა. სუფთა და დაცულ გარემოში გაზრდა ბავშვის ფუნდამენტური უფლებაა. უსაფრთხო წყალზე წვდომა, ადეკვატური საკანალიზაციო სისტემა და კარგი ჰიგიენური პრაქტიკა არა მხოლოდ ხელს უწყობს ბავშვთა განვითარებას, არამედ ცხოვრების ჯანსაღად დანყების საშუალებასაც აძლევს. საქართველოში თითქმის ყველა სკოლა დგას WASH-თან დაკავშირებული პრობლემების წინაშე. ზოგიერთი სკოლა მთლიანად აკმაყოფილებს წყლის, ჰიგიენისა და სანიტარიის სტანდარტებს. ზოგს აქვს მომსახურების საკმაოდ დაბალი დონე, ნაწილი კი მთლიანად მარგინალიზებულია, რაც დაკავშირებულია ბავშვებში ინფექციური დაავადებების განვითარების რისკთან.

ამრიგად, კვლევის მთავარი მიზანი იყო იმ პროექტების შეფასება, რომლებიც ქვეყანაში ემსახურებოდა გამოწვევების აღმოჩენასა და ინოვაციური WASH გაიდლაინებისა და საგანმანათლებლო აქტივობების დანერგვას. შესაფასებლად შეირჩა საქართველოს სამედიცინო ჯგუფის (GMG) მიერ 2015-2021 წლებში სოფლის სკოლებსა და თემებში განხორციელებული პროექტები, რომელიც მიმდინარეობდა ამერიკის შეერთებული შტატების საერთაშორისო განვითარების სააგენტოს (USAID) და კოკა-კოლას ფონდის (The Coca-Cola Foundation) მხარდაჭერით Global Water Challenge-ის, New World-ისა და CARE International-ის საშუალებით.

Access to clean water, safe sanitation, and proper hygiene (WASH) is essential for creating a conducive learning environment and ensuring the health and well-being of students. In many low- and middle-income countries, children face significant challenges due to inadequate WASH infrastructure in schools, which adversely affects their health and educational outcomes. The lack of WASH services can result in increased incidence of waterborne diseases, including diarrhea, which remains a leading cause of death among children under five years old globally [1]. This issue is especially critical in rural areas, where infrastructure is often limited, and the risk of disease outbreaks is higher.

In Georgia, the WASH-related challenges are particularly prevalent in rural schools, where access to clean water and sanitation facilities is often insufficient. While some schools meet basic WASH standards, many others are marginalized and face significant barriers in providing students with the necessary resources for maintaining hygiene [2]. This article examines the efforts of the Georgian Medical Group (GMG) to address these challenges and improve WASH services in schools between 2015 and 2021.

Globally, millions of children suffer from poor sanitation and a lack of clean water in schools, leading to serious health risks. According to the World Health Organization (WHO) and UNICEF, about 40% of schools worldwide do not have access to basic WASH services, a statistic that becomes even more

concerning during public health emergencies such as the COVID-19 pandemic [3]. Poor sanitation and hygiene practices in schools are linked to higher rates of absenteeism, infections, and poor academic performance. This issue is particularly severe in rural areas, where the lack of infrastructure exacerbates the problem [4].

In Georgia, rural schools often struggle with WASH-related challenges. A study conducted by the Good Neighbors organization in 2019 found that while some schools provide adequate WASH facilities, many others fail to meet basic standards, which significantly impacts student health and learning [5]. The GMG project, supported by the United States Agency for International Development (USAID) and other partners, aimed to improve WASH conditions in the Adjara and Guria regions of Georgia, where the infrastructure is underdeveloped.

The project focused on improving access to clean water, sanitation facilities, and hygiene education in rural schools. This initiative sought to reduce the risk of disease, improve hygiene practices, and promote better health outcomes among students. However, despite the progress made, significant challenges remain, particularly in terms of infrastructure development and the sustainability of the improvements [6].

Study Objectives - The aim of this study is to evaluate the impact of the GMG project on WASH conditions in rural Georgian schools and to assess the effectiveness of the guidelines and educational standards introduced. Specifically, the study focuses on:

1. Determining whether schools have adequate WASH services, including clean toilets, handwashing stations, and access to safe water.
2. Identifying the challenges faced by students and teachers in accessing and utilizing WASH services in rural schools.

Methods - A case-control study was conducted with 10 randomly selected schools in the Adjara and Guria regions of Georgia. The study included 50 teachers and 382 students from grades 7 to 12. Data were collected through semi-structured interviews with students and teachers. The interviews focused on water availability, sanitation, and hygiene practices in the schools. A standardized questionnaire was also used to gather demographic information, and ethical guidelines were followed throughout the study.

Results - **Water Availability and Quality:** Among the students surveyed, 54% reported that their schools had a consistent supply of water. However, 97% of students avoided drinking water at school due to concerns over water quality, with many choosing to bring water from home instead. **Toilet Use:** Approximately 76.5% of students avoided using the school toilets. The main reasons cited for this avoidance were Poor cleanliness (50%), Bad odors (20%), and Long distances from classrooms to the toilets (30%). **WASH-related Challenges:** Over 80% of respondents identified major WASH-related challenges. The most significant issues were poor water quality, inadequate sanitation infrastructure, and limited access to handwashing stations.

Conclusion - The findings of this study underline the urgent need to improve WASH services in rural Georgian schools. The lack of clean drinking water, inadequate sanitation facilities, and poor hygiene infrastructure have significant negative effects on student health and education. These issues contribute to increased absenteeism, reduced academic performance, and higher infection rates among students.

The GMG project has made important strides in improving WASH services in the regions it targeted, but much more needs to be done. Continued investment in rural school infrastructure is essential to ensure that all students have access to safe drinking water, clean sanitation facilities, and the opportunity to practice good hygiene.

Improving WASH conditions in rural Georgian schools is crucial for enhancing students' health, academic performance, and overall well-being. The GMG project has contributed to improving the situation in the Adjara and Guria regions, but more needs to be done to ensure that all schools have access to safe water, sanitation, and hygiene facilities. By addressing these challenges, we can create a healthier and more supportive learning environment for students in Georgia.

References:

1. United Nations. Times of crisis, times of change: Science for accelerating transformations to sustainable development. United Nations; 2023.
2. Prince AA. Water, sanitation, and hygiene (WASH) in schools: Results from a process evaluation of the National Sanitation Campaign in Tanzania. *Journal of Water, Sanitation and Hygiene for Development*, 7(4), 554-564.
3. Bennion N, Mulokozi G, Allen E, et al. Association between WASH-related behaviors and childhood diarrhea in Tanzania. *International Journal of Environmental Research and Public Health*, 18(9), 4681.
4. Coates S, Ricketts S, Vale S, Hitchcock C. Transferring personal hygiene and sanitation education (PHASE): South to North. *Waterlines*, 29(4), 315-328.
5. United Nations. Sustainable Development Goals: Resolutions and Decisions. Retrieved from <https://sustainabledevelopment.un.org/post2015/summit>
6. USAID. Water and Sanitation. Retrieved from <https://www.usaid.gov/what-we-do/water-and-sanitation>
7. UNICEF. Water, Sanitation, and Hygiene (WASH) key facts. Retrieved from <https://www.unicef.org/wash>

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SUMMARY

Access to safe and adequate water supply, sanitation conditions, and hygiene practices in schools is a prerequisite for providing a complete basic education opportunity for students. Growing up in a clean and safe environment is a fundamental right of every child. Access to safe water, adequate sanitation systems, and good hygiene practices not only support children's development but also provide them with the opportunity to start life in a healthy way. In Georgia, almost all schools face WASH-related issues. Some schools fully meet water, hygiene, and sanitation standards, while others provide services at a very low level, and some are completely marginalized, which increases the risk of infectious disease spread

The aim of this study is to evaluate projects that were implemented in Georgia to address WASH-related challenges and introduce innovative WASH guidelines and educational standards. The study focuses on the projects carried out by the Georgian Medical Group (GMG) between 2015 and 2021, which aimed to improve water access, sanitation facilities, and hygiene practices in rural schools. The project was funded by the United States Agency for International Development (USAID) and the Coca-Cola Foundation, with partners including Global Water Challenge, New World, and CARE International

Keywords: WASH, Water Quality, Sanitation, Hygiene, Rural Schools, Georgia, Education

