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ASSESSING ACCESS TO SANITATION IN RURAL SCHOOLS

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Pupils spend a long time at school, where improved water, sanitation and hygiene services can improve health by decreasing diseases, such as diarrhea, respiratory infections, and soil-transmitted helminths. Recent studies showed that improved school WASH services have a positive influence on decreasing illnesses; for instance, in beneficiary schools, diarrhea was 29% lower. Symptoms of respiratory infections were 25% lower than in comparison schools.

The aim of the study: to assess the access to the sanitation in rural schools.

Material and methods: the study was carried out using the face to face interview with the administration of the school, observation checklist, and a questionnaire for the pupils.

Results and discussion: 13.3% of pupils reported that the toilets are locked, and the key is not available in the schools. 20.5% of students reported the absence of separation of toilets by gender. 46.4% of them were girls. Additionally, 29.5% of students characterized as a problem of the separation absence by gender. 57.1% of them were female. 20.23% of pupils reported that the youngest pupils could not use the toilet without any help.

Conclusions: analyzing the situation, we can conclude that access to sanitation is provided in schools, unfortunately, the conditions of their maintenance are ignored.

Key words: sanitation, access, assessment, schools, rural areas

Pupils spend a long time at school, where improved water, sanitation and hygiene (WASH) services can improve health by decreasing diseases, such as diarrhea, respiratory infections, and soil-transmitted helminths [4, 5, 7]. Recent studies showed that improved school WASH services have a positive influence on decreasing illnesses; for instance, in beneficiary schools, diarrhea was 29% lower. Symptoms of respiratory infections were 25% lower than in comparison schools [5]. Besides, improvements in school-based water, sanitation, and hygiene reduce the prevalence of reinfection of *Ascaris lumbricoides* [4]. Equally important, the risks of diarrhea in children until five years were reduced from 27% to 53%, depending on the WASH intervention [8]. Improved water, sanitation, and hygiene at schools are fundamental to good health. The Sustainable Development Goal (SDG) 6 states the importance of coherent whole WASH services [2]. It aims to provide full coverage available and sustainable management of water and sanitation by 2030 [1]. The target 6.2 states to reach access to adequate and equitable sanitation and hygiene for all with the vital attention for women and girls. Furthermore, SDG 4 aims to increase the proportions of education facilities with access to an effective learning environment, including a basic level of drinking water, sanitation, and hygiene [6].

Many countries face challenges in achieving these goals. About 620 million children worldwide do not have access to the basic sanitation level, and 23% of schools have no sanitation in 2016 by the global report of the Joint Monitoring Program (JMP) 2018 [3].

The aim of the research was to assess the access to the sanitation in rural schools.

MATERIALS AND METHODS

The study was carried out using the face to face interview with the administration of the school, observation checklist, and a questionnaire for the pupils. These instruments enable the triangulation of the information and to get a real situation of school sanitation. All three instruments had the same pools of questions. The tools covered aspects such as availability, functionality, quality of services, privacy, security, accessibility, maintenance, and education about sanitation. A total of 166 students (85 – female, 77 – male) from three schools takes part in this research, with a mean age of 11.60 ± 3.14 . Students were distributed, as 29 students (12 – female, 17 – male) from school 3, 35 of them (23 – female, 12 – male) from school 2, and 102 students (50 – female, 48 – male, four students did not indicate their gender) from school 1.

RESULTS AND DISCUSSION

Sanitation: availability. Available toilets in schools are essential for children. Avoiding using them can lead to severe health problems and a lack of concentration during the study. It is crucial to meet the basic needs of the pupils. Improved toilets are defined as preventing human excreta from human contact; consequently, the type of school toilet is necessary information for assessing its availability, accessibility, and privacy. Moreover, the number of toilets should be enough for all students in the schools.

During the face to face interview, it was revealed that the toilets of these schools are not

connected to a centralized sewer system. Moreover, there are two currently available toilets for pupils, and the school staff does not have a separate toilet from the pupils in schools 2 and 3. Nevertheless, in school 1, the number of available toilets is six. Additionally, this school has a separate toilet for school staff and the toilet cubicle in the outside of the building.

It was observed that there are two unisex flush toilets in schools 2 and 3. The toilet of school 3 was closed by key; however, the key was available. Furthermore, there were six unisex flush toilets in school 1. It was not possible to observe the toilet, which is located outside of the building due to the weather conditions of this region, the road was not cleaned from the snow.

In Kazakhstan, there are sanitary rules, "Sanitary and epidemiological requirements for educational facilities." It establishes sanitary and epidemiological requirements for placement, design, construction, reconstruction, repair, commissioning, water supply, sewage, heating, lighting, ventilation, microclimate, the content and operation, the conditions of training, accommodation, industrial practice, catering, medical services for students and pupils. According to sanitary rules, schools should have one latrine for twenty girls and one latrine for 30 boys. If to take account that all toilets in these schools are unisex, the number of toilets corresponds to these requirements.

The questionnaire of the pupils showed that 76.5% of students answered that they visit the toilet at school, whenever they need to (127). 11.4% of students visit it only when they absolutely cannot hold on anymore (19). It can lead to health problems, such as urine infections. So, these percent of pupils are at risk of having health issues. It is recommended to drink enough water during the day, and it is a healthy habit. After drinking water, students need to go to the toilets; however, 8.4% of students never went to the toilets (14).

13.3% of pupils reported that the toilets are locked, and the key is not available in the schools. In school 3, one-fourth of students reported about the unavailability of the key, and it leads to the violation of the rights of students. Therefore, everyone has the right to sanitation.

12% of students (20) stated that they could not lock the door of the toilet cubicles, whereas 75.3 % of them disagreed with it (125), 12.6% of students missed this question.

Moreover, in schools 2 and 3, two toilet facilities are located in one room, so given the local mentality, girls hesitate to go to the toilet, if

in the neighbor toilet room, there are boys. Furthermore, girls would be too shy if someone will see who is in the toilet.

Sanitation: functionality. Using the toilet at school depends on physical appearance and quality; consequently, it shows the functionality and attractiveness of it. Broken toilets, or blocked hole of it, or dysfunctional mechanisms lead to avoiding the toilets.

All interviewees assured that pupils' toilets were functional during the academic year, and there were not any issues with the functionality of it. Before the answer, the interviewer explained the meaning of the «functional toilet».

During the examination, all the toilet facilities in the schools were functional and usable. All criteria of functionality were checked: the hole of the latrine was not blocked, and the constructions of toilet cubicles were not broken, and water for flushing was available.

80.7% of students (134) reported that the statement of broken toilets is not valid. However, 6 % of them (10) agreed with this statement.

Sanitation: privacy. One of the most critical characteristics of the toilets is privacy. Toilets should be closed by lock from the inside of the toilet, and it should be operational. Also, it should not be opened easily by others. Additionally, they should be sex separated toilet facilities. These conditions provide the privacy of the toilets.

During the interview, it was found that in all schools, toilet facilities exclusively for female pupils have existed. Moreover, there are no toilets exclusively for female staff except for school 1. Furthermore, interviewees certified that enough privacy is provided in toilet cubicles, here the meaning of private was explained before the answer.

By observation, all information was checked, and all toilets were gender-neutral, there was not any sign on the door, which indicated that the toilet is only for boys or girls. In school 1, there was a toilet for school staff, with the sign only staff. Gender-neutral toilets lead to inconvenience during the use of toilets. It will not be comfortable when behind the wall, the boy uses the toilet.

20.5% of students reported the absence of separation of toilets by gender. 46.4% of them were girls. Additionally, 29.5% of students characterized as a problem of the separation absence by gender. 57.1% of them were female. In these school toilets, there is one common place where everyone can see each other, so gender-neutral toilets lead to a lack of communication in the

shared zone because, in this type of place, girls like to talk about everything. Moreover, there was not taken into account the problems of girls who have a menstrual period. For these girls, this issue can lead to the avoidance of the toilet, and shyness about classmates will know their period time and will make fun of them. It will be the result of not going to the school, and gaps in school programs.

Students were asked to report about the bad experiences of their classmates, and there was explained the word "bad experience" as to be hurt by other pupils or to be heard bad words from others and wrote mean words on the walls. 10.8% of students stated that it happens often. Moreover, 10.2% of them reported that it happens very rarely. 78.9% of students rejected the statement of bad experiences.

Only 10.2% of students reported about their own bad experiences. Moreover, 71.7% of them denied this type of experience. 15.7% of students refrained from this question. Furthermore, 61.5% of them were males. Students can feel afraid to go to the school toilets because of their bad experience. A large number of conflicts occur in toilets where children are left unattended. It is one of the reasons for not visiting the school toilets.

Sanitation: accessibility. Access to the school toilet should be easy, especially for young children and limited mobility students. Moreover, pupils should have access to it anytime. The toilets which are located inside of the building and on each floor are preferable. It is an essential factor to go to school. Sanitation facilities have to meet the basic needs of the pupils.

In the face to face interview, all toilets of three schools were characterized as accessible to all pupils, and the explanation of «accessible toilet» was given to the school staff. In schools 1 and 3, pupils visit the toilet anytime; however, they have to ask permission during the class. Nevertheless, the vice headteacher of school 2 stated that they are free to use the toilets during the school day. Furthermore, the toilets are always accessible, without the key, except school 3.

It was observed that in all schools, the toilets are located inside of the building, the buildings of schools 2 and 3 are small and have only one floor, and the toilets of school 1 are located on each floor. Moreover, the constructions of the latrines are comfortable and suitable for all ages so that the smallest children can use them. All these toilet cubicles are available, functional, and private. The issue of limited mobility students was not studied in this survey because most of

these students in this country are going to specialized schools.

20.23% of pupils reported that the youngest pupils could not use the toilet without any help. The survey of pupils showed that there exist problems for the youngest children schools. It negatively affects his condition, the state of the genitourinary system, the psychological state. For children, it is a stressful situation. It's the physical stress of what children are suffering.

Sanitation: quality of services, operation, and maintenance. Clean toilets minimize health risks. Furthermore, uncleaned toilets are one of the barriers to avoiding toilets. Adequate lighting and heating system, ventilation is essential for the basic service of the school toilet. Otherwise, the operation of the sanitation may lead to not visiting the school toilet. Additionally, it is, in turn, may lead to health problems of pupils.

In the interview, all school staff told that toilet facilities are cleaned twice per day or whenever needed, and there is enough lighting, ventilation inside. During the cold weather, all toilets are heated; also, culturally appropriate means for anal cleansing are always available. In the toilet facilities, the general waste bins are provided.

It was examined that in schools 1 and 2, in the door of the toilet, there was a cleaning schedule. They were signed by the responsible person, and there was written the time and date of the last cleaning. Nevertheless, the school 3 did not have this type of monitoring list. All toilet facilities were clean, and there were functional lightning and adequate ventilation during the observation time. Some toilets had appropriate means for anal cleansing provided in schools 1 and 2; however, in school 3, there was not provided it. There were waste bins in the toilet facilities; they were adequate to prevent the accumulation of litter on the floor, except school 2, where the waste bins were from cardboard box.

From students' questionnaire it was found that half of students (42.2%) could never find the toilet paper. 9% of them stated that they are provided rarely, 7.2% of them assessed as most of the time. 25% of students refrained from the answer to this question. The absence of the toilet paper is a reason for not to use the school toilet.

72.9% of students reported that there is always enough light in the toilet facilities. Very strange noticing that 9 % of students reported as never and 9.6% of them stated as rarely. 8.5% of them avoided to answer it.

Majority of students (80.1%) reported that toilets are always clean or most of the time, 7.6% of them answered as rarely clean, 4.2% of

students stated as never clean. 8.1% of students refrained from answering this question.

Half of students (49.4%) assessed the toilet facilities as excellent; moreover, 30.7% of students assessed it as okay. 8.4% of them reported them as quite bad, 4.2% told that they avoid using it.

Sanitation: education and practices. Education and practices are equally important to all characteristics. Educational posters help to promote healthy behaviors, also maintain clean and functional facilities. Moreover, this part analyses the system of registering the problems of facilities. To register complaints about school toilets helps to save functionality and privacy of the toilet.

All interviewees noted that there was not ever reported episodes of bullying or violence in the school facilities. Moreover, here was given some examples of activities, aggressive and undesired behaviors, such as rumors, threats, or physical excluding of pupil from the group. Additionally, there is a complaints procedure for all students to report issues in school toilets. In schools 1 and 3, there was taken action for complaints about toilet issues. In school 2, the vice headteacher stated that there were no complaints.

During the observation, posters were promoting healthy and hygienic use of toilets in schools 1 and 2.

Half of students (54.2%) can go to the toilet whenever they need to, including during classes. 28.3% of them reported that they could go during breaks, before or after classes but not during classes; furthermore, 6% of them reported as it depends on teachers.

If 34.3% of students find a problem in the toilet area, pupils usually openly talk to a member of the school staff about it, and 19.9% of them are asked to report any problems in the toilet. 28.3% of them would not talk to a staff of the school.

29.5% of students remember positive change after the student's complaint. 30.7% of students refrained from the answer, and 38% of them denied it. 48.8% of students answered that they have talked about toilet hygiene and proper hygiene behaviors when using toilets at school, 32.5% of them denied it. 16.3% of students do not remember.

CONCLUSION

Analyzing the situation, we can conclude that access to sanitation is provided in schools, unfortunately, the conditions of their maintenance are ignored. Taking into account that toilets are unisex, this leads to embarrassment for

many students. It was found the issue of functionality of toilets during the academic year. Consequently, this can lead to the avoidance of school toilets and be one of the reasons for not visiting the school toilets. Unsuitable toilets for junior schoolchildren urge children to categorically refuse to go to the school toilet and endure until the last, sometimes to the house. It is not a comfortable situation, because the child should not tolerate it.

Conflict of interest. No conflict of interest declared.

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ОЦЕНКА ДОСТУПА К САНИТАРИИ В СЕЛЬСКИХ ШКОЛАХ

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Учащиеся проводят много времени в школе, где доступ к воде, санитарные и гигиенические условия могут улучшить здоровье за счет снижения таких заболеваний, как диарея, респираторные инфекции и гельминтозы, передающиеся через почву. Недавние исследования показали, что улучшенные услуги в школах положительно влияют на снижение заболеваемости; например, в школах с улучшенным доступом к воде, санитарии и гигиене диарея диагностировалась на 29% меньше, а симптомы респираторных инфекций были на 25% ниже, чем в школах сравнения.

Цель работы: оценить доступ к санитарии в сельских школах.

Материалы и методы: исследование проводилось с использованием интервью с администрацией школы, контрольного листа наблюдения и анкеты для учеников.

Результаты и обсуждение: 13,3% учеников сообщили, что туалеты заперты, а ключи не доступны. 20,5% респондентов сообщили об отсутствии разделения туалетов по полу, 46,4% из них составляли девушки. Дополнительно 29,5% студентов охарактеризовали проблему отсутствия разделения по полу, 57,1% из них составляли женщины. 20,23% школьников сообщили, что младшие школьники не могут пользоваться туалетом без посторонней помощи.

Заключение: анализируя ситуацию, можно сделать вывод, что доступ к санитарии в школах есть, но не соблюдаются условия содержания.

Ключевые слова: санитария, доступ, оценка, школы, сельская местность

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АУЫЛДЫҚ МЕКТЕПТЕРДІҢ САНИТАРИЯСЫНА ҚОЛЖЕТІМДІЛІКТІ БАҒАЛАУ

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Оқушылар мектепте көп уақыт өткізеді, онда су, санитария және гигиена (ССГ) қызметтері диарея, тыныс жолдарының инфекциясы және топырақ арқылы берілетін гельминттер сияқты ауруларды азайту арқылы денсаулықты жақсарты алады. Соңғы зерттеулер көрсеткендей, мектептердегі ССГ қызметтерінің жақсаруы аурудың төмендеуіне оң әсер етеді; мысалы, ССГ қолжетімділігі жоғары мектептерде, диарея 29% аз болды. Респираторлық инфекциялардың белгілері ССГ қызметі жақсы мектептерде, бұл қызмет төмен мектептерде 25% төмен болды.

Жұмыстың мақсаты: ауыл мектептеріндегі санитарияға қолжетімділікті бағалау.

Материал және әдістері: зерттеу-мектеп әкімшілігімен сұхбат, бақылау парағы және оқушыларға арналған сауалнаманы қолдану арқылы жүргізілді.

Нәтижелері және талқылауы: оқушылардың 13,3%-ы дәретханалар құлыптаулы және кілт жоқ деп мәлімдеді. Студенттердің 20,5%-ы дәретханаларды жыныстық бөлудің жоқтығын хабарлады. Олардың 46,4% қыздар құрады. Сонымен қатар, студенттердің 29,5%-ы жынысы бойынша бөлінудің болмауы мәселесін сипаттады. Олардың 57,1% қыздар құрады. Оқушылардың 20,23% кіші мектеп оқушылары дәретхананы бөгде адамның көмегінсіз пайдалана алмайтынын хабарлады.

Қорытынды: жағдайды талдай отырып, мектептерде санитарияға қол жетімділік бар, бірақ оларды ұстау шарттары сақталмайды деп қорытынды жасауға болады.

Кілт сөздері: санитария, қол жетімділік, бағалау, мектептер, ауылдық жерлер