School water and sanitation towards health and hygiene in India

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SCHOOL SANITATION AND Hygiene Education (SSHE), is globally recognized as a key intervention to promote children's right to health and clean environment and to influence a generational change in health promotion behavior and attitudes. It is now known that not only the quality of teaching but also the environment, especially the availability of safe drinking water and sanitation together with good hygiene practices are key factors which influence learning.

Since the beginning of 2000, UNICEF, together with the International Water and Sanitation Centre (IRC) is involved in a SSHE project in various states around India. The overall objective of the School Sanitation and Hygiene Education programme in India, also known as the SWASTHH programme (meaning School Water and Sanitation towards Health and Hygiene) is to develop, test and successfully demonstrate replicable models for hygiene education, water supply and environmental sanitation in rural primary schools and pre-schools. The SWASTHH programme aims to make a visible impact on the health and hygiene of children through improvement in health and hygiene practices of children, their families and the communities. It also aims to improve the curriculum and teaching while promoting hygiene practices and community ownership of water and sanitation facilities within schools.

The aim of this article is to focus on some of the basic lessons learnt so far in SSHE. Many of these lessons are currently being compiled into a resource book on School Water and Sanitation towards Health and Hygiene specifically developed by IRC and UNICEF, India. This article will specifically examines some of the cited lessons from research, evaluations and programme experience that can be helpful in structuring school programmes for water, sanitation and hygiene education.

Lessons learnt on SSHE

The following are only some of the main lessons learnt regarding SSHE. The coverage of these lessons is meant to provoke some discussion and is not exclusive as such[1].

Important interventions about diarrhoea

Researchers have examined 144 studies (Esrey, 1994) and showed which interventions were related to the greatest reductions in diarrhoea. This research shows that the four most important issues, in the order of their possible impact, are: Safe disposal of excreta; household and personal hygiene, especially handwashing; quantity of water used; and quality of water.

The issues that give greatest health benefits, as shown in the graph above, are:

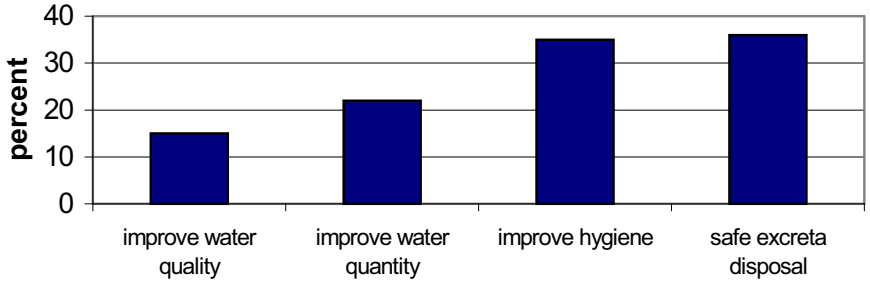
Safe excreta disposal

Infectious diarrhoea such as dysentery, cholera and typhoid, is caused by agents such as bacteria and parasites. These agents get into humans via the mouth. Parasitic infections such as intestinal worms or hookworms also get in through the mouth or skin and are passed out in excreta. (Curtis, 1998)

Improved hygiene

This includes personal and household cleanliness, using water from safe sources, hygienic storage of water and safe

Table 1. Percentage reduction in diarrhoea by intervention



cooking of food. Handwashing, in particular, is a major preventive measure against disease. Handwashing after defecation is very important! Handwashing facilities, which need not be expensive, are essential in schools.

Quantity of water used

Hygiene also means using enough water. Many skin and eye diseases can be prevented simply by washing hands, face and bodies. The national drinking water programme has laid down some daily per capita water needs for planning purposes and to serve as guidelines for communities. This is 40 litres per capita daily to be available within 1,600 meters. States have over the years made efforts to increase the per capita volume or reduce the distance of protected spot sources in order to benefit rural households and primarily women. However there is a constant tension between increasing demand for more and better quality of water and population growth combined with falling water tables due to unregulated extraction of water. To improve hygiene, the amount of water needed is usually said to be 20 litres or more per person each day. In India, many households use far less due to the lack of availability of water.

Importance of eliminating worm infestation

Children are at particular risk from worm infections (Esrey, 1994; Nokes et al, 1992; Nokes et al, 1993). These can be controlled by practices such as: safe disposal of excreta, washing hands after defecation, wearing shoes or other foot wear such as "chapels", food hygiene, such as avoiding eating food from roadside vendors with very poor observation of good hygiene practices, avoiding exposed food, cut fruits, milk based sweets and other foodstuff which invariably are exposed to flies and are sold in unsanitary environments.

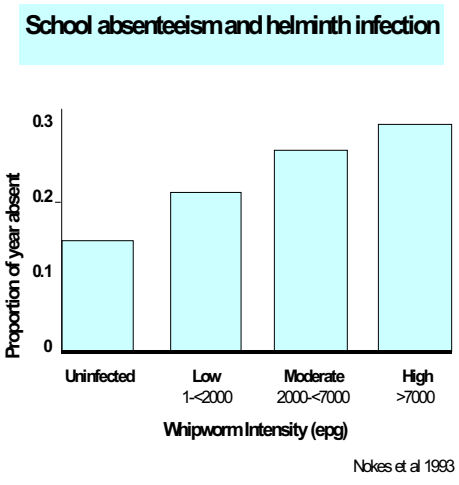


Figure 1. School absenteeism and helminth infection

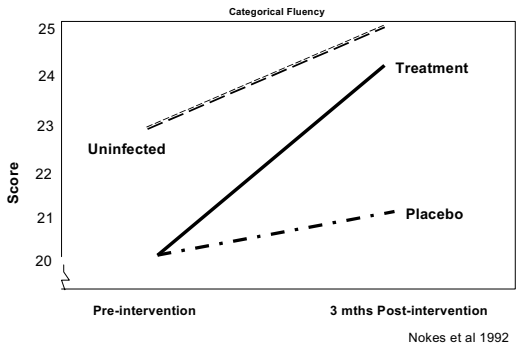


Figure 1. Improvement in cognitive performance with treatment in school children in Jamaica

The following graph from research in Jamaica within the Caribbean, shows how school performance attendance can be related to worm infestation. In particular, the first graph shows that children in this study, who have worm infestation, tended to be more frequently absent from school. The second graph illustrates that, after deworming, children show improvement in their growth and educational development. Both of these graphs illustrate the point that healthy children perform better in school and can attend more regularly.

Evaluations and programme experience

School sanitation and hygiene education has a long history in India and other nations. Evaluations of past programmes and reflection on the past experience yield useful lessons that can be applied to the future. It is crucial to review and incorporate these lessons creatively and flexibly into future programming and policy.

However, not all of these past experiences are positive because, unfortunately, the promises of school health and hygiene programmes have not always been fulfilled. In many countries, including India, schools still suffer from:

- Non-existent or insufficient water supply, sanitation and hand-washing facilities;
- Toilets or latrines that are not adapted to the needs of children, in particular girls;
- Broken, dirty and unsafe facilities;
- Non-existent or irrelevant health and hygiene education for children;
- Unhealthy and dirty classrooms and school compounds.

Under these conditions, schools become unsafe places where diseases are transmitted. Formal evaluations have been undertaken of school programmes in most nations. Lessons from a few of these (India, Bangladesh, Ghana, and Vietnam) as well as from programming experience are described in the following box.

Lessons from programmes in schools

Use and maintenance

- *Attendance of children, particularly girls, improves when they can use good sanitation facilities*. The benefits of school facilities, beyond health, are probably greater for girls than for boys.
- *Dirty facilities become unused facilities*. Organisation of children for using cleaning and maintaining facilities are needed. Teacher training should give an important place to how children can be organised for this in the school especially as maintenance and use of facilities are great challenges.
- *If the number of latrines is too few, then they tend not be used*. The use of toilets and hand washing facilities, in particular, will increase over time if they are maintained in good order. If the latrines are too few (for example, 1 latrine for 200 students as is planned in some programmes), then they may not be used. Also if teachers tend to lock one latrine for their own use or because they want (and need) a latrine for themselves, then they are also not used by the students!

Children and teachers

- Children are potential *agents of change* in their homes through their knowledge and use of sanitation and hygiene practices learned at school.
- *Teacher commitment is crucial*. Without teacher commitment to the programme, it will fail. Training teachers is a key issue. Refresher training should include organisation of children/staff for maintenance and use of school facilities, making work plans, activity plans for school health clubs. Giving *too many responsibilities* to teachers in a top-down way will not succeed. Teachers are often working in poor conditions and are not, in general, motivated. Planning should take account of this fact and accept it.
- *Learning and teaching materials are important*. Creative use of local materials for hygiene education is a subject to be incorporated into teacher training. These should be kept as simple and practical as possible. In SWASTHH, special attention may be needed not only for production but **also** to distribution of teaching/learning materials, which tends to be a bottleneck.

Conclusion

This article has been based on the principle that there is a rich body of international experience on which SSHE programmes/projects have and can be built upon. This article has named but only a few of these SSHE lessons. Inevitably, if past experience remains unknown or unused, then we risk repeating past mistakes or using considerable effort to learn what is already known, that is to say, re-inventing the wheel. The wisdom of the present SSHE programmes therefore builds on lessons learned from the past.

References

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