A discussion on toilet design for schools in relation to menstrual management - The Zimbabwe scenario

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Introduction

The standard design for school sanitation in most rural areas and many peri-urban sites throughout Zimbabwe is based on a multi-compartment version of the Blair VIP. This was introduced by the Ministry of Health in the early 1980's and has been used every since. Like the family version of the BVIP (Blair VIP) the unit has no moving parts, has no door and is built in brick over a brick lined pit. Family units can last for up to 15 years before the pit is full and school units can last for 20 years before the pits are full. Multi-compartment units are built with from 6 to 10 cubicles, some being designed as urinals. Units for boys and girls are similar. Each pit is separate from the next and fitted with a screened ventilation pipe. These vents are usually made of brick but can also be made of 110mm PVC. PVC pipes have a tendency to deteriorate after some years and there are situations where the pipes are damaged due to valdalism. The built pipes are les efficient than PVC pipes but are stronger and longer lasting. Corrosion resistant fly screen must be fitted to BVIP vent pipes and aluminium or stainless steel screens are the correct options. Other screens erode with the corrosive gasses coming from the pit. Door-less toilets must be fitted with roofs to attain the semi dark conditions required for the BVIP.

Boys and girls multi-compartment Blair VIP toilets

These units have the great advantage that they have no moving parts and if well built provide almost no trouble or maintenance problems over the course of their long life time.

Attempts to make girl friendly school toilets

At least two attempts have been made to design school toilets considered to be more suitable for school girls, especially when the are in menses. Some work was carried out at the Institute of Water and Sanitation Development and further work in the Chisungu schools Eco-San Project in Epworth. These projects considered that privacy was a very important to school girls and also that the interior of the toilet school be

fitted with a hand washing basin. Experience has revealed that the hand washing facilities fitted within modified school toilets are rarely filled with water. Also toilets fitted with doors are often left open or the hinges fail in the demanding conditions.

Far more important is the fact the girls on menses do not want to be identified as being in this condition and prefer to use the same toilets are other girls – that is the standard BVIP. In this way they are not identified a being in this specific condition. Secrecy of being in this condition is very important to girl on menses. This fact has an influence on potential toilet design and what factors are the most important.

How girls cope with door-less multi compartment BVIPs

Since the multi compartment BVIP has been the standard government recognised unit used in schools throughout Zimbabwe for nearly 30 years, and tens of thousands of units have been built, the question must be asked - how have the girls adapted to the standardised and recommended technology since the unit does not offer complete privacy. And there are no linked water facilities for hand washing inside.

The technology has the advantage that it works well. The design is very simple – no moving parts and made of brick and concrete. Is simple to maintain and very few technical problems are encountered with it. It is a series of ventilated pit toilets build end to end with individual door less cubicles built over individual brick lined pits. The pits do fill up over time, usually after about 20 years, and thuis at the end of the units life span the toilets must either be emptied or abandoned and rebuilt.

How the girl s have coped with the multi -compartment VIP

One important factor which has emerged from this study is that girls on menses do not want to be identified as such. This can lead to embarrassment and humiliation. Thus the use of special toilets designed specifically for girls in this condition, will immediately identify them. The girls in menses prefer to remain unidentified and thus must use the same facilities as all other girls. This means using the standard mult-compartment BVIP.

How do the girls cope with use of the multi-compartment BVIP?

A specific behavioural pattern has emerged for girls using the M-BVIP. This is that almost all visits are made not by single individuals but as girls in pairs or even groups. This behavioural pattern is entirely different in boys. This has become the time when girls often socialise. The girls in pairs or groups may be in menses, but may not be. The selection is random and lies at the heart of a social pattern that has not yet been fully analysed. This practice has been maintained for many years. The socialisation linked to the use of the toilet has nothing to do with whether a girl is on menses or not. However it is a subtle way of providing the girls on menses with the privacy and the safety they require without the attention that would be attracted by the use of specific toilets. This practice is even followed in secondary schools (such as Marlborough High School) where doors are fitted to the toilets. It appears to have become a standard social thing for girls. This suggests that for Zimbabwe at least, the design and construction of specialised toilets for schools girls and especially those on menses may be a mistake.

The pit type toilet has its advantages. Those sanitary pads which are used and are of no further value are simple thrown down into the pit. Those pads which can be washed, dried and reused are placed in a plastic bag by the girls (such as the plastic bag used to hold sliced bread) and kept in the satchel until the girl returns home. It is within the homestead where the girl will have the complete privacy to wash and dry her pads. This can never be done within the school environment. Even if wash rooms are available in day schools, there is little chance they will be used for washing pads. There will be no privacy and once again the use of such placed for this reason will again attract attention which the girl on menses does not want. What is most important is what is going on in the girls' mind. Nobody wants their privacy invaded. The real issue is washing the hands after visiting the toilet for what ever reason.

Single toilet designs for schools and new innovations

In recent years new work has been performed at the Chisungu schools project where pupils are taught to build brick toilets themselves under supervision. This work has include the construction of special brick lined pits and also various types of brick superstructure. Both spiral (door-less) and designs with doors have been built. The design and build technique had been specifically geared towards less skilled persons, including the school pupils. A great deal of literature and manuals produced on this subject. These units are single units and not multi-compartment units. Each unit is allocated to a particular class. The single units can be replicated in the homesteads around the school. This concept is still on trial and still to be considered as a new option for school toilet design by the Government of Zimbabwe. The most successful toilet designs are built from bricks in a spiral (door-less) configuration. The problems that can be encountered with doors and hinges fall away. The units can be taken apart and rebuilt quite quickly if necessary. Manuals are available for the construction of these units.

Brick built spiral BVIP being constructed by primary school pupils.

Hygiene and hand washing

Communal hand washing tanks have been built at schools for many years in the Zimbabwe Rural Sanitation Program. In almost every case the water must be hand carried to the tank from a pump or other source of water close to the school. Conventional taps are generally fitted to these tanks, some having restrictors to reduce water use. Invariably the tanks empty and are not frequently refilled. In a more recent design, now being tried as part of this project, a new water restricting method is being tried. The new tank design with will be examined and monitored. Hand washing devices designed for families have also formed a significant part of the schools project. See other parts of this report and references.