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Hygiene '95

PROMOTING WATER HYGIENIC PRACTICES AMONG JAKARTA ELEMENTARY SCHOOL STUDENTS

by

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Presented at :

IRC The Hague, 1995

203.2-95PR-14475

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I. INTRODUCTION

Jakarta is the capital city of Indonesia. It covers an area of 654 square kilometer, and is located on the north western part of Java island. It is the center of national and local Government, trade, culture and education, and has a great influence on the development of other parts of Indonesia, thereby functioning as a strong pull factor for people from other areas. Administratively, Jakarta consists of of 5 municipalities, which are further divided into Kecamatan (sub districts) and Kelurahan (village). Kelurahan itself is divided into Rukun Warga (Rw or hamlet), and Rukun Tetangga (Rt or neighbourhood organization). There are now 43 Kecamatan, 263 Kelurahan, 2500 Rw and 25.000 Rt.
In 1995, Jakarta has a population of 9 million people. The population density is around 13.000 people per square kilometer. Population growth is high, around 2,41 % per year with a Crude Birth Rate of 19,6 per thousand, a Crude Death Rate of 5,96 per thousand and a net migration rate of 1,03 %.

Slum dwellings occupy large areas of Jakarta. It covered an area of 4.480 Hectare or about 7% of Jakarta's area, in which 2,3 million people were living. These densely populated areas are the primary source of various communicable diseases. Clean water supply has not yet covered the whole areas. Only 40% of the households in Jakarta receive direct connection of clean water from the municipal water supply system. 18.000 cubic meter of solid waste are produced, but only 80% of them can be collected in an open dumping site.

There are 3452 elementary schools in Jakarta, with 1.500.000 students. Children attending school are often more vulnerable to disease. Only a small number of them has enjoy tap water, and the rest get only water from a shallow or deep wells. This condition tends to increase the health risk among the school community. Water and sanitation related diseases such as various types of diarrhoea, worm infestation, skin and eye infection and vector-borne diseases accounts for most of the morbidity and mortality in Jakarta. School handwashing facilities could promote the spread of trachoma via contaminated common towels and handkerchief. A study in Columbia revealed that the levels of cleanliness of school toilets are directly associated with the frequency of diarrhoea in children. Several studies mostly conducted in Nigeria have shown that rates of absenteeism due to guinea worm reach at 60% in some schools.

Water and sanitation programmes generally aim to reduce the diseases and thus to contribute to promoting public health, to reducing curative health costs and to decreasing production losses due to poor health and illness.

Since 1980, Little Doctor programme was launched in Jakarta and now this programme has been adopted as a national programme. Several countries, i.e. Republic of the Philipines,

Republic of Iran, India has also undertaken this programme.

In 1995, 30% of Jakarta's elementary school schools has Little Doctors but they are not yet trained to act as prime movers in motivating themselves, their friends and their family circles to have a appropriate hygienic water behaviours and practices. These Little Doctors seems to be a potential audience, that could motivate the school community to change their behaviours on hygienic water practices. Their activities could enhance the activities that are already undertaken at the city wide level, i.e. Natonal Discipline Movement and Clean Friday Movement.

New approaches and techniques are delivered by International Water and Sanitation Centre in The Hague, The Netherlands at a Short term training on Planning and Management for Behavioural Change held on October 30 till November 17, 1995.

This paper is addressed to Jakarta Local Government, Jakarta Provincial Health Services and Provincial Education Services and other members of the Provincial School Health Committee to get their full support at the implementation phase of the programme.

II. SITUATIONAL ANALYSIS

a. HYGIENE PROMOTION PROBLEMS

Hygiene Promotion Problems are found at Jakarta elementary schools, either from water supply facilities or from excreta disposal facilities and the operation and maintenance of those facilities. Hygiene education plan is not coordinated with the technical project staff.

1. Water supply facilities

Only 15% of the elementary schools have tap water connected to the municipal water supply system. During breaks between lessons, when many children at once want to drink water or wash their hands the supply is often insufficient.To meet the short fall, several schools have installed drums or water reservoirs as a complementary system to increase the storage capacity. But, water from these facilities could not be used as drinking water.

2. Programme on water hygiene behavioral change

Programme is not yet undertaken, although the faecal-oral transmission of diseases is a common phenomenon in Jakarta, e.g. worm infestation, typhoid fever, diarrhoeal diseases etc.

3. Excreta disposal facilities

In general the number users per latrine is 40-50 users. Factors that have negative impact on the use of facilities are dirtiness, insects, overuse, long waiting time and bad smell.

4. Operation and maintenance

Operation and maintenance of facilities is poor in almost all schools. Supervision of the correct use of the facilities is lacking in many schools.

5. Hygiene education

Hygiene education in the elementary schools is often a result of the transfer of theoritical knowledge. School hygiene education is not coupled with essential water and sanitation facilities.Practical involvement in maintenance activities is considered merely an extra task, without educational value. Participatory learning is still uncommon, because many teachers are not used with this new approach.

6. Educational materials and tools

There are lack of educational materials. Students are not stimulated to producetheir own educational materials.

7. Teacher

Not all teachers are trained and have enough tools and resources, necessary to provide practical training adapted to the local conditions motivating the students to be involved in hygienic practices.

8. Little Doctor

Although up to now Jakarta has 150.000 Little Doctors, their training modules on hygienic behaviours and practices are not enough discussed. More attention are being given to the control of solid waste collection at the school area and to reduce the environmental risks, without paying more attention to the behaviours and practices of elementary school students that could endangered their health conditions.

b. POTENTIAL AUDIENCE

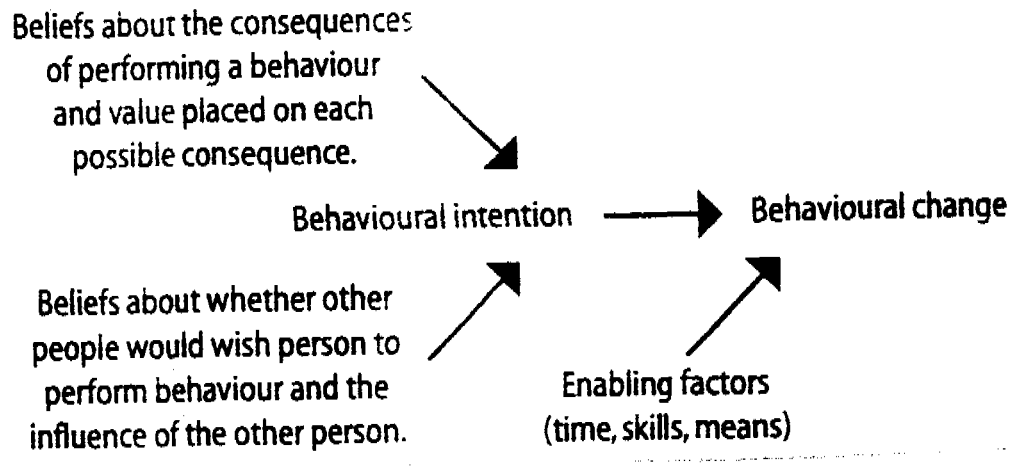
The potential audience to be influenced and motivated are the:

- Teachers.
- Elementary school students.
- Little Doctors.
- Their parents.
- School janitors.

Students can change their behaviours and their health practices when they believe that the new practices has net benefits for health and consider these benefits important.
Elements that influence their behaviours could be seen clearly in BASNEF MODEL (Hubley 1993).

BASNEF model:
How individuals change hygiene behaviour

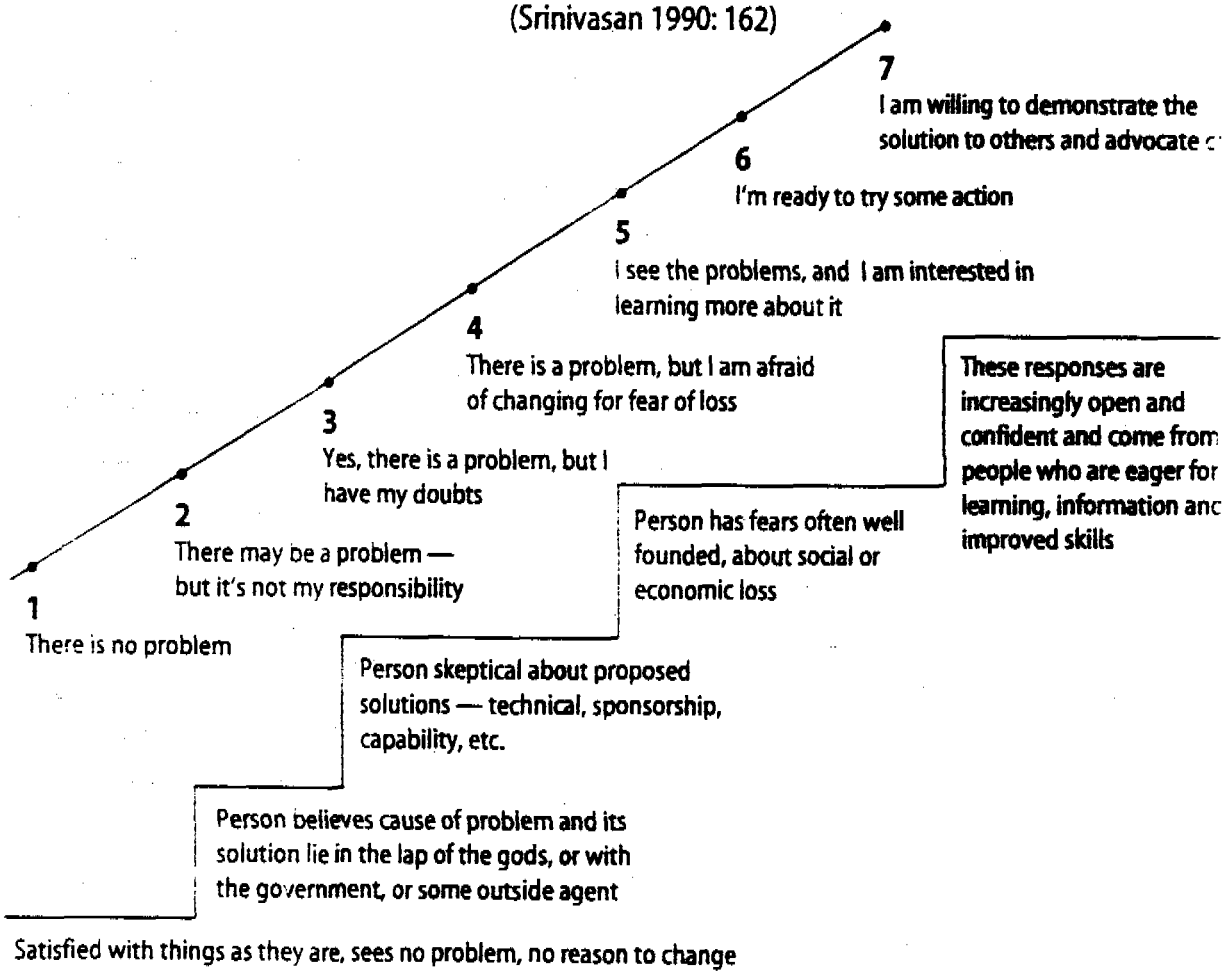
(after Hubley 1993)



To identify the stage of readiness to change for those potential audience, a diagram is used (Srinivasan 1990,162).

Stages of readiness to change for individuals, groups and communities

(Srinivasan 1990: 162)



C. EXISTING POLICIES AND PROGRAMMES

1. POLICY

a. Developing School Health Council at all level of beaurocracy.
b. Gaining an understanding of how national policies are developed and assigned priority.
c. Gathering all available data on health problems and behaviours of the students, as well as evidence on effective interventions in schools so that it can be used by the government.
d. Organizing and presenting such data to policy and decision makers in a clear, understandable, concise and persuasive manner.
e. Forming of alliances with teachers and parents, influental groups, sectors and non governmental organizations.
f. Using Subdistrict Health Centres as home-base of School Health Services activities.
g. Achieving measured results from school education programme.

2. PROGRAMMES

a. Teacher training programmes.
b. Little Doctor training programmes.
c. School Health Services and Screening programmes.
d. School Health Education and School Campaign.
e. Healthy School Environment.
f. Little Doctor Contest.

III. DESIGN THE PROJECT

Development of a project must be based upon a sound rationale with objectives that realistic in light of previously conditions and available resources. the issues that need special attention are described below :

a. NEEDS ASSESSMENT

1. Base line data is needed to identify the health needs and problems of students in elementary schools, their knoledge, values, behaviours and practices.
A review of curiculum and training methods in the schools and teacher training programmes anda available resources for implementing the programmes are also essential,

2. Community based approach or participatory approach put the elementary school students in the center of all actions. The health educator acts as facilitator to help the school community to analyze their health problems and to define their own priorities for changing health behaviours and practices. The main advantage of this approach is fully based on school's immediate interests and needs.
The school community take decisions and initiatives to improve their environmental health.

Several participatory techniques are used to assess the need of the school community, which could be described as below :

a) SARAR method.
b) Personal and group interview.
c) Focal Group Discussion.
d) Flexi-flaps.
e) Story with a gap.
f) Role play.
g) Three pile of solving cards.
h) ZOPP.

SARAR methodology encourage and enable the school to be active partners with health provider in community participation, and seeks to build within the individuals and communities the following skills :

S elf esteem.
A ssociative strength.
R esourcefullness.
A ction planning.
R esponsibilities.

This approach consists of interactive discussion techniques supported by carefully prepared visual aids, which guide school community member and Little Doctors in defining their concerns and priorities and planning a course of action.
SARAR techniques seek to draw out knowledge that had already exist and to raise people's self confidence in solving their own problems.

b. Choose practices, conditions and understandings to be promoted e.g. handwashing after defaecation and before eating and cleanliness of the latrines.

c. Choose strategy, e.g. implementing in the curricula, method, media, tools and promotors.

d. Set and score objectives, indicators, actors, tools, inputs, supervisor and channelling.

1. OBJECTIVE

To promote water supply and sanitation behaviours and practices at elementary schools in Jakarta during the 6th. Five Year Plan.

2. INDICATOR

By the end of 1997, 3000 students from 10 elementary schools in Jakarta have improved their skills in effectively develop hygiene promotion activities on the use of safe drinking water, sanitary latrines and handwashing after defaecation and before eating.

a) Subindicator 1 : Handwashing after defaecation

By the end of 1986, 80% of students, routinely washed their hands after defaecation, after hygiene education programmes has been introduced.

b) Subindicator 2 : Cleanliness of latrines.

By the end of 1997, 80% of the latrines at 10 elementary schools in Jakarta are free from vectors, and no faeces is found at the surrounding of the latrines.

3. ACTOR

a) Elementary school children.
b) Little Doctors.
c) Teachers.
d) School principals.
e) School janitors.

4. TOOLS

a) Little Doctor's diaries.
b) Regular personal hygiene inspection.
c) Personal Health Record Book.
d) School self surveys.
e) Semistructured interviews,
f) Structured interviews.

5. MATERIALS

a) Posters, flip charts, flap cards, slides, radiocasettes, videocasettes, songs, mpocket cards, photo exhibition.
b) Soap, bucket of water near latrine and towel.

6. INPUT

Participatory training.

7. SUPERVISOR

a) School Health Coordinator.
b) School Health Council.
c) School Health Committee.

8. CHANNELLING

a) Level I : School Health Committee.
Subdistrict Health Center.
Regional Health Services.

b) Level 2 : Provincial Health Services.
Provincial Education Services.

e. AUDIENCES

Audiences are divided into three target groups :

1. Direct target groups	:	Little Doctors. Elementary school students. Teacher. School Principal.
2. Indirect target groups	:	Parents. Brother and sister. Street vendors.
3. Intermediate target groups	:	Technical project staff. Local extentio workers of Gov't and NGO. Gov't representatives and policy makers.

f. MESSAGES

Messages are planned and developed by the school community and delivered to all students and/or family circles at home. The content of the communication materials is based upon :

- The behaviours and practices that had been selected for intervention e.g. handwashing and clean latrines.
- Main behaviour in the five behavioural domains (see annex).
- Three practices which are the most cost-effective in prevention of faecal-oral diseases (WHO, 1993), i.e.

    * Preventing faeces from getting access to the environment.
    * Handwashing after defaecation and before touching food.
    * Mantaining drinking water free from faecal contamination.

Messages must be pretested and revised.

IV. ACTION PLAN

a. Preparatory phase

1. Determine batches where programme take place.

    * 10 schools.
    * 3000 elementary school students.

2. Choose the promotors.

    * 300 Little Doctors, 150 boys and 150 girls.
    * 10 teachers.

3. Train promotors.

Participatory training approach is used ;

* Formative research by the school community.
* Assess the problems on water behaviours and risk practices at their schools and homes.
* Selects behaviours and practices for intervention. Develop action plan, logical framework and time table.
* Find ways to organize the school community to implement the programme.
* Develop monitoring system design.

b. Implementation phase

1. Implement the strategy.

2. Implement the action plan at :

* In 1995, at 2 schools and another 2 schools as control group.
* In 1996, at 4 schools.
* In 1997, at 4 schools.

3. Health campaign weeks.

c. Monitoring phase

Monitoring is focused at two related fields :

1. Latrine and urinary shed surroundings (see annex).

2. Water collection, storage and use.
Cleanliness around class.
Personal hygiene of children and handwashing practices.
School environment (see annex).

d. Evaluation phase

Evaluation is focused on three related fields :

1. Progress :

* Inputs in manpower, money and used of resources.
* Implementation of tasks by teachers and Little Doctors
* Number and type of hygiene education activities.
* Timing of activities.

2. Participation :

* Number and type of participants.
* Frequency of their participation.
* Their approaches of the activities.
* Their initiatives and actions.
* Input in time and money.
* Growing demand of hygiene education.
* Establishment of School Health Committee.
* Participation of Little Doctors in planning, implementation and monitoring and evaluation.

3. Expected outputs :

* Change in conditios and behaviours related on handwashing and cleanliness of latrines.
* Functioning and use of facilities and environment.
* Better personal hygiene .

The Hague , November 1995.

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Table 2: Overview of main behaviours in the five behavioural domains

A: Disposal of human faeces

- choice of place for defecation
- disposal of faeces
- anal cleansing
- disposal of cleansing material
- handwashing
- cleaning of the toilet/latrine
- maintenance of the toilet/latrine
- other activities related to faecal matter
  - use of faeces as fertilizer
  - use of faeces for fish production
  - animals eating faeces

B: Use and protection of water sources

- choice of water source
- water collection
- water transport
- water use at the source
- wastewater disposal and drainage
- water treatment
- water source protection and maintenance
- other activities related to water source
  - water conservation by prevention of water pollution
  - water conservation by prevention of ecological degradation

C. Water and personal hygiene

- water hygiene in the home
  - water handling
  - water storage
  - water treatment
  - water re-use
  - wastewater disposal
- personal hygiene
  - washing of hands/cleaning of nails
  - washing of face
  - body wash/bathing
  - hygiene after defecation
  - washing and use of clothes, towels and bedding
- personal hygiene during natural events, such as menstruation, birth, death, illness

D. Food hygiene

- handling practices
  - cleaning of kitchen/food preparation area
  - handwashing/use of clean hands
  - use of clean work-top and kitchen utensils
  - use of clean dishcloths/kitchen towels
  - use of safe water
  - disposal of wastewater and garbage
- preparation practices
  - washing of raw food and fruits
  - temperature/length of cooking
  - temperature/length of re-heating
  - speed of cooling
  - time of preparation
- storage practices
  - temperature/length of storage
  - location and coverage of stored food
  - storage of left-overs
  - storage of eating/kitchen utensils
- eating and feeding practices
  - handwashing/use of clean hands
  - use of clean eating utensils
  - feeding of babies and small children
  - times of eating and feeding
  - washing of eating/kitchen utensils

E. Domestic and environmental hygiene

- household hygiene
  - wiping of surfaces
  - sweeping and cleaning of floors/compounds
  - removal of shoes before entering the house
  - cleaning of children's play objects
  - insect control
- environmental hygiene
  - street cleanliness
  - wastewater disposal & drainage
  - solid waste disposal
  - hygiene at public places
- animal management
  - control/corralling of animals
  - safe disposal of animal faeces

Logical Framework used to plan a project or programme and prepare a proposal

	Description	Objectively Verifiable Indicator(s)	Means of Verification	Assumptions
Development Objective (long term overall goal)				
Intermediate Objective (medium term)				
Immediate Objectives				
Target Group(s)				
Targeted Results				
Planned Activities (incl. for monitoring and evaluation)				
Required Resources (mnpower, materials, funds)				
Financing and Financial Contributions				

LATRINE URINARY SHED SURROUNDINGS IDENTITY FORM

NAME OF SCHOOL ..... PANCHAYAT..... TOTAL STUDENTS.....

MONTH/WEEK	All children use latrine				Water kept inside latrine				Kept soap in the latrine				Pan & surroundings clean				Faeces in the water seal				Foul smell in the latrine & urinary shed			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
June																								
July																								
August																								
September																								
October																								
November																								
December																								
January																								
February																								

Signature of camp President Signature of Teacher in charge Signature of Headmaster

INSPECTION CARD

Name of School..... **Class**..... **Division**..... **Panchayat**.....

MONTH/	water collection, storage and use				cleanliness around class				personal hygiene of children				school environment			
WEEK	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
June																
July																
August																
September																
October																
November																
December																
January																
February																

- Clean the vessel & collect water
- While collecting, taking and handling water, hands should not touch the water.
- Kept closed with the lid
- Collect the water daily
- Cleanliness around the place of keeping the vessel

- No paper or garbage around classroom
- No sand and dust
- Systematic atmosphere

- Nails have to be removed
- Clean dress
- After bath, combed hair
- Body cleanliness

- clean environment condition
- stagnant water around wells
- Grass covered surroundings
- Unused latrine & urine sheds
- Food & other things are scattered and carelessly

Source :