

Report

# **Behavioral Change Of Pharmacists Towards ORT**

**An Evaluation of  
Pharmacists Training  
Program**

**Prepared by:  
Research Department  
Social Marketing Company**

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**BEHAVIOURAL CHANGE OF PHARMACISTS  
TOWARDS ORT**

*- An Evaluation of Pharmacists Training Programme*

PREPARED

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# **THE REPORT**

## **EXECUTIVE SUMMARY**

## EXECUTIVE SUMMARY

### Introduction:

SMC has started a training program in 1986 among the pharmacists with a view to motivate their behavioural instinct toward using ORS as a treatment for diarrhoea and thereby avoiding unnecessary prescription of drugs. In addition, knowledge on contraceptive use is also provided. To learn about their extent of knowledge, attitude towards and practice of ORS/ORT in case of diarrhoeal disease and family planning (contraceptives) measures, samples from two different categories, each from untrained (control) and trained (experimental) pharmacists, were interviewed to compare the variations between control and experimental segments.

### Profile of the respondents:

Respondents were mostly within mid-age level. Above 90% of all the respondents were owner of the pharmaceutical outlets. Only a few were salaried employee/salesmen. The literacy level was comparatively high in the Bangladesh context. Majority of them are above SSC level. Beside their formal academic background, the pharmacists have undergone through various health related certificate/course like rural medical practitioners course (19% for experimental and 28% for control), para medical certificate course (17% for experimental and 10% for control), etc.

### FINDINGS ON ORS & DIARRHOEA:

#### Treatment of different ailments:

It is evident from the study that the pharmacists, both in the experimental and control groups, normally prescribe drug/medicines for different physical ailments like diarrhoeal disease, family planning, fever, stomach pain, headache, skin disease etc. It is observed that both the groups have shown a common trend in prescribing drugs among the patients. Almost all the pharmacists in both the groups, specially the experimental one (97%) prescribe drug for diarrhoeal diseases and family planning.

### Use of Drugs in diarrhoeal disease :

Almost all the pharmacists use drugs as a treatment for diarrhoea in all the cases. A very few prescribe only ORS/saline/ORS without drug. It is evident from this study that both the groups show a similar trend in prescribing 'medicine' as treatment to the diarrhoea affected patients. Where use of ORS/saline/ORS by experimental and control group was 8% and 4% respectively. Ofcourse 26-29% prefer IV fluid as precautionary measure. Two-third of the respondents prescribe antibiotic and other drugs as well. It is observed, out of many drugs, pharmacists prescribe mostly Metronidazole . Antibiotics like Tetracycline , sulphur group drug like Cotrimexazole/Cotrim etc. are prescribed by both the groups, with a minimum variations. Remarkably it is found that a few pharmacists prescribe high power drugs like Oradexon (steroid group) which is never to be administered in simple diarrhoea.

### Dispensing Antibiotics:

Experimental group (59%) has shown a significant favourable attitudes against the use of antibiotics as a treatment of diarrhoea in comparison to the control group (70%). Moreover, the pharmacists of experimental group know better use of antibiotics in serious physical situation of the diarrhoeal affected patient.

### Meaning of diarrhoea:

According to World Health Organisation, diarrhoea may be defined as 3 or more times of loose motions per 24 hours. One big volume of loose motion/bowels showing the symptoms of dehydration may also be termed as diarrhoea. A question was asked to find out what the respondents mean by diarrhoea.

It is observed that majority of the respondents could not define diarrhoea. Ofcourse the experimental group have shown a better level of defining the meaning of diarrhoea in comparison to the control group. There has been an increase of 21% in the experimental group (26%) over the control group (5%) in correctly defining diarrhoea. Ofcourse, majority in both groups have provided a vague answer - 'loose motion occurs several times'.

### Consequences of diarrhoea :

In determining the major consequences of diarrhoea, the trained pharmacists have shown a distinct margin of knowledge over the control group . The mostly stated major consequences are frequent loose motion, dry mouth, flaccid skin, sunken eyes, irritable physical condition etc.



#### Knowledge of dehydration :

Remarkably it is observed that both the groups could not show any significant level of knowledge about dehydration. Less than half of the respondents in both the groups could state clearly the concept of dehydration i.e loss of essential body fluid with electrolytes.

#### Symptoms of dehydration :

But when the respondents were asked to identify the symptoms of dehydration, they could well define various symptoms of dehydration. In identifying the symptoms, experimental group could not overcome the overall level of knowledge among the control group in this regard. The symptoms as reported are frequent thirst, dry mouth, sunken eyes etc.

#### Viability of prepared packaged saline :

Both the groups have similar level of knowledge about the duration of viability of the prepared packaged saline. Two third of the pharmacists could correctly state the stability of prepared oral saline. Of course about one fourth of the respondent might have confused the stability-period with the message related to home-made saline (of BRAC and other NGOs) which can be preserved for 6 hours, where as the packaged salines (ORSaline etc.) can be preserved for 12 hours.

#### Meaning of ORT/ORS/IVS:

The term and meaning of ORT is not very clear among the pharmacists. Both the groups, specifically, the experimental group (71%) could define ORS satisfactorily than the control group (56%). But there is a wide variations among 47% respondents from experimental groups who could define the meaning of IVS (Intra-venous saline/fluid).

Of course, both the groups show a similar trend in citing examples of ORS and IVS. ORSaline is the popular example of ORS to majority of the pharmacists.

#### Administration of ORS:

The study shows that the message of administering ORS as many times loose motion occurs has successfully reached to majority [above 85%] of the pharmacists. Experimental group is marginally ahead of the other group.

#### Dossage of oral saline:

It is observed that both the groups do not have significant knowledge level on specific ORS dosage, though the experimental groups have shown better indication in prescribing the accurate dossage for child and adult.

#### When ORS is ineffective ?

##### Child's life at stake:

Child's life may be at stake due to diarrhoea when there is severe dehydration with signs of shock or is unable to drink due to severe fatigue, convulsion, unconsciousness, prolonged oliguria or anuria with severe and persistent vomiting is observed. A question was asked to find their perception of this issue. It is observed that a large number of the pharmacists (both the groups) are not totally aware when the infants life may be at stake or in other word when ORS is ineffective during diarrhoea. Only about 40% could state one of the many reasons of becoming childs life miserable.

#### Administering IVS:

Intra-venous Saline (IVS) seems to be very much popular among the pharmacists. It is evident that 80% of the experimental groups and 72% of the control groups suggest to administer IVS to a patient of diarrhoea with vomiting. Moreover, the rationale of administering IVS is not very strong. Inadequate/shallow knowledge may lead to disastrous results to a patient.

#### Dietery Management:

The most important factor that normal diet should be continued during diarrhoeal episodes featured as the major responses made by the experimental groups (49%) which is 22% higher than the control group (27%). The trained pharmacists have better knowledge on dietery management than the other group of pharmacists.

#### Brand preference:

There are numerous brands of packaged branded ORS available in Bangladesh. It is observed that ORSaline - SMC brand preference among all the pharmacists is very high. ORSaline is preferred due to its essentially inertent QUALITY and price-within-the-reach of the consumers.

#### Selling practice in reality:

This method was used to find out the actual attitude and practice of selling ORS to the consumers. This was done among the respondents from whom data was collected through quantitative questionnaire in both the experimental and control groups. Different set of investigators disguised as consumers were deployed to know the actual selling behaviour. It is observed from this approach of study that experimental group showed a better attitude towards ORT/ORS than the control group but the tendency of using drugs in both the groups was very distinct. Remarkably it is observed that no one (0%) has reported that only antibiotic can be a remedial measure. But in reality during mystery shopping 33% [experimental 24%, control 41%] dispensed only antibiotics.

## DISCUSSIONS & RECOMMENDATIONS:

### Antibiotics & other drug use:

Almost all the pharmacists use drugs as a treatment for diarrhoea in all the cases. A few prescribe only ORS/saline/ORS without drug. Two-third of the respondents prescribe antibiotic and other drugs as well. It is observed, out of many drugs, pharmacists prescribe mostly Metronidazole. Antibiotics like Tetracycline, sulphur group drug like Cotrimexazole/ Cotrim etc. are prescribed by both the groups with a minimum variations. Remarkably it is found that a few pharmacists prescribe 'life saving drug' of high power like Oradexon (steroid group) which is never to be administered in simple diarrhoea. These drugs are to be prescribed after proper bacteriological investigation- 'Culture sensitivity' of stool. Culture sensitivity helps to find out the presence of micro organisms in the stool and degree of resistance (negative/positive) to drugs (tetracycline/ ampicillin/ cotrimexazole etc.). Without any sensitivity test, use of drugs only leads to development of more resistance to drugs.

### Behavioral change through training:

It is observed that the knowledge level in dispensing antibiotics among experimental group is more favourable than the control group. Experimental group (59%) has shown a significant favourable attitude against the use of antibiotics as a treatment of diarrhoea in comparison to the control group (70%). Moreover, the pharmacists under experimental group know better use of antibiotics in serious physical situation of the diarrhoeal affected patient. Similar trend is observed in defining and understanding the overall phenomenon of diarrhoea.

But actual COMMITMENT could not match the reported statement. The process of *mystery shopping* helped to know the actual selling practice showing better attitude towards ORT/ORS among the experimental group than the control group, but the tendency in using drugs in both the groups was clearly high.

It is quite significant that no one (0%) has reported that only antibiotic can be a remedial measure. But in reality during *mystery shopping* 33% [experimental 24%, control 41%] dispensed antibiotics.

### Rationale in dispensing drugs:

The major rationale in dispensing drugs by the pharmacists may be:

-Profit motive: It is obvious that antibiotics and other drugs bringing in more profit ['super normal profit' to majority of the cases in rural Bangladesh] to the pharmacists encourages them to dispense drugs ( even multiple drugs).

-Consumers demand and belief: In many cases consumers believe that quick recovery is only possible through drugs and this idea influences to demand for drugs. Moreover, false expectations that 'ORS stops diarrhoea' could have created severe consequences to some patients forcing them to act against ORS.

### Conclusions:

It is quite clearly observed that training has changed to some extent [though not significantly] the level of knowledge on diarrhoea, its consequences and symptoms, its treatment etc. and actual selling practice.

*Therefore,*

more thoughts should be given on existing training curricula, duration and exposure of the learning materials, use of aids and credibility of the course instructor, as well, with a view to behavioural change of pharmacists towards ORS , not ANTIBIOTICS.

*SO,*

**CONTINUOUS TRAINING AND IEM CAMPAIGN ON THIS ISSUE MAY LEAD TO CHANGE THE BEHAVIOUR OF THE PHARMACISTS AND RURAL MEDICAL PRACTITIONERS -[THEY ARE THE MAJORITY-PRESCRIBER , MOSTLY IN THE RURAL BANGLADESH] TOWARDS ORS INSTEAD OF DRUGS.**

# **INTRODUCTION**

