

A Qualitative Research Report
On
POUZN

Submitted to

Abt Associates Inc. USAID Contractor

Submitted By

MEMRB
Wide presence. Deep insight.

Marketing Research Consultants
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Preamble of the report

section 1

- In section one will discuss doctors, pediatricians and pharmacist perception about diarrhea, their awareness regarding Zinc treatment and how we can spread its awareness among parents.

section 2

- In section two will discuss parent's perception for diarrhea, awareness for diarrhea for zinc supplements and how Zinc supplements can be marketed.

Research Background

- Approximately 1.5 million children die as a result of Diarrhea and Dehydration every year. In majority of the cases its preventable through hygiene and access to clean water.
- WHO recommends that children be given Zinc Supplements in addition to oral rehydration for the treatment of acute diarrhea
- In January 2009,US AID Mission to Pakistan which supports Ministry Of Health's child health initiatives, invited the POUZN Project to conduct an assessment of the private sector diarrhea treatment market.
- The assessment revealed the existence of several zinc manufacturers with products already in the market.
- USAID Mission is now funding the POUZN project to partner with manufacturers on an effort to increase the demand for zinc products in Pakistan.
- The Goal of POUZON project in Pakistan is to increase the use of commercial Pediatric Zinc Products through the development of a generic mass media campaign, public awareness activities & education and training.

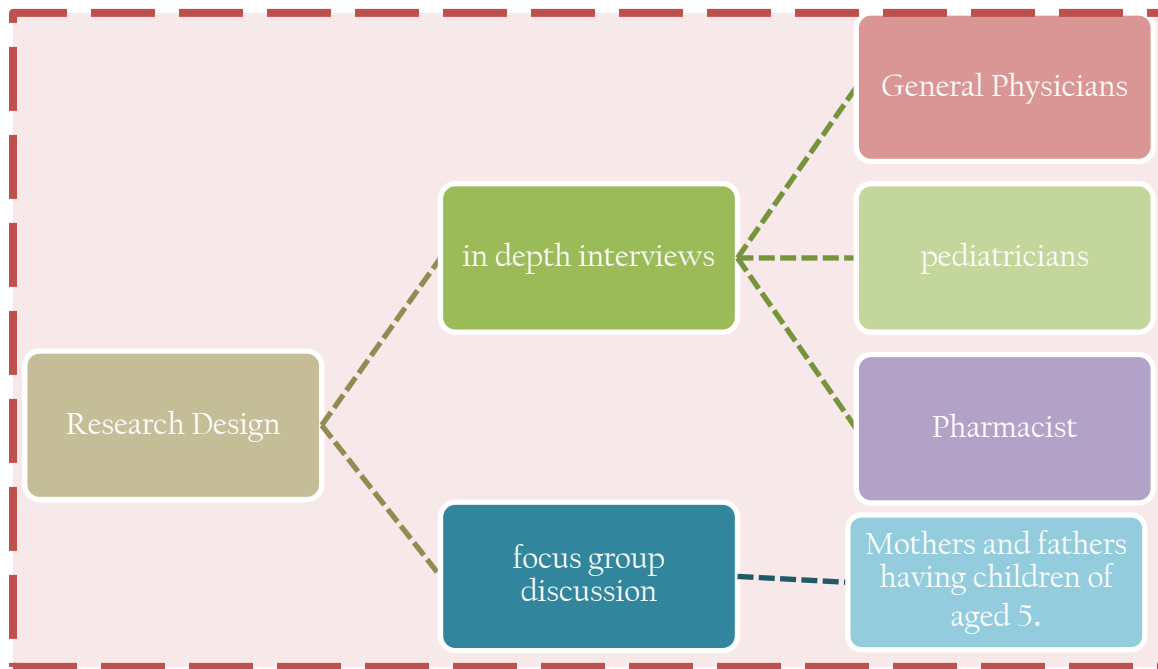
Research Objective

- ▶ Identify current methods of childhood diarrhea management and treatment
- ▶ Assess public perceptions of diarrhea;
 - Understand how seriously diarrhea is taken
 - Gauge public awareness of causes and appropriate management of childhood diarrhea (including post-diarrhea safety methods)
 - Evaluate awareness of Zinc treatment for childhood diarrhea and its effectiveness
 - Assess awareness of earlier diarrhea campaigns
 - Identify important mediums to reach target group for the zinc treatment campaign

Research Process

For this research qualitative methods of In depth interviews and focus group discussions were used

- In depth interviews were proposed for hard to recruit participants like Doctors, pediatricians and pharmacists
- Focus groups were conducted with parents



Sample Split

The Sample split is as follows

In Depth Interviews	Doctors	Pediatricians	Pharmacist
Karachi	09	03	03
Sukkur	03	01	01
Hyderabad	03	01	01
Multan	03	01	01
Faisalabad	03	01	01
Total - 45	21	07	07

FGD	Mothers		Fathers
	20 – 30 Years	30 – 40 Years	22- 40 Years
Karachi 1	SEC A	SEC BC	SEC DE
Karachi 2	SEC BC	SEC DE	SEC A
Karachi 3	SEC DE	SEC A	SEC BC
Sukkur	SEC BC	SEC DE	SEC DE
Hyderabad	SEC DE	SEC BC	SEC BC
Multan	SEC BC	SEC DE	SEC DE
Faisalabad	SEC A	SEC BC	SEC BC

Total - 21	7	7	7
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Summary Report
Of
In Depth Interviews

Understanding Daily Routine:

General Physicians

Doctors are busy like a bee; they spend their majority time on clinic. Majority of the doctors spend 5 to 6 hours daily on their clinic. Doctors reported that they work in hospitals and do some business in the morning. Doctors reported that they take a break of 3 to 4 hours in between if doing OPD in morning and evening. The quantity of patient varies but on an average 40 to 50 patients visits a doctor daily. Adults and kids both visit doctors with problem but the total percentage of kids is 50%. The key responsibilities reported by doctor are to look after their patients, to treat them, to make them aware of the disease. Doctors reported that illiterate patients usually visit them, who are unaware of the disease and its underlying symptoms. It was also reported by doctors that it is their foremost duty to help their patients and to guide them.

Pediatricians:

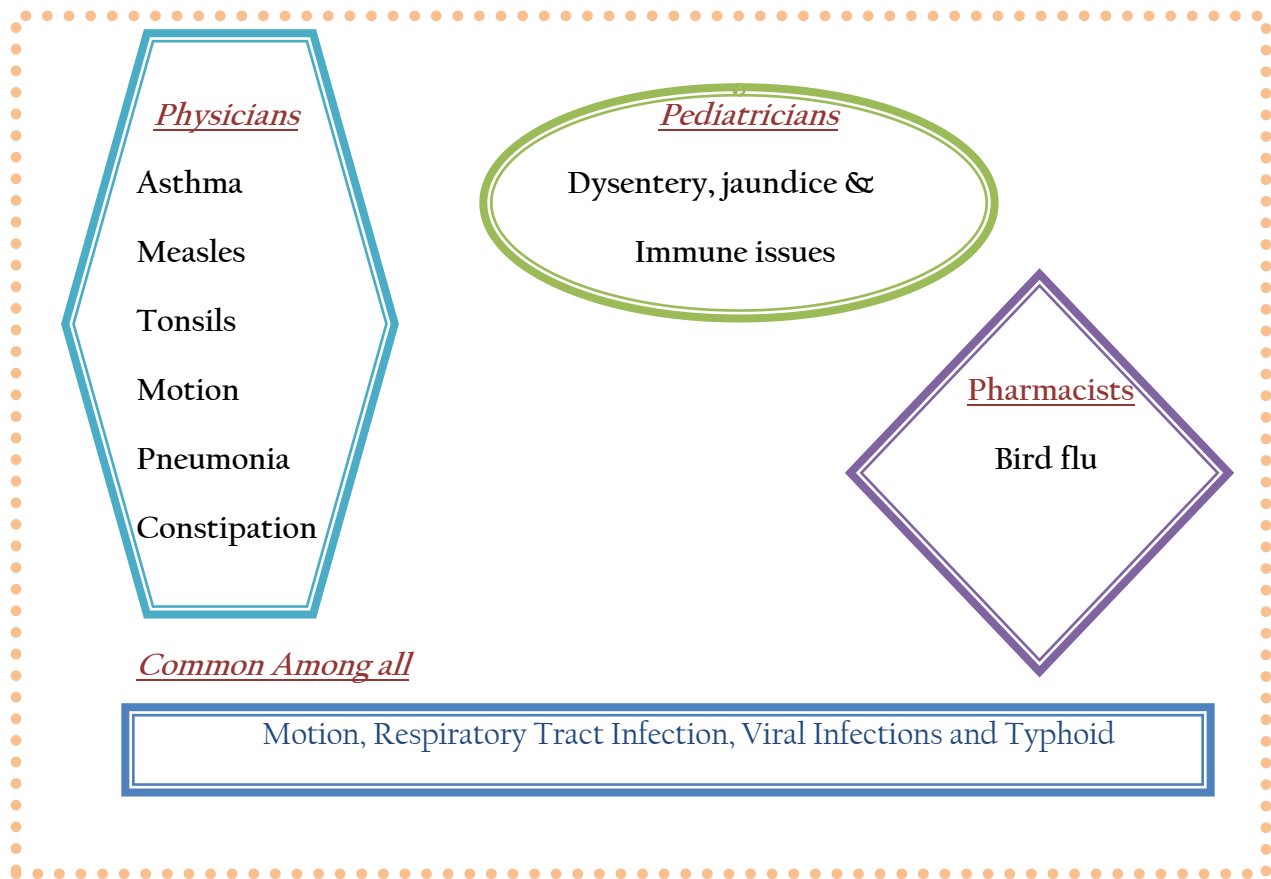
Like General physicians pediatricians are also busy in their work life. Their start their day at 9:00 o'clock. An asking their daily routine it was reported mostly that in morning they do work as a child specialist in a hospital and in the evening they have they run their own clinic. An average of 15 to 20 patient's visit them daily which are mostly sever cases referred by physicians. Pediatricians usually get very less time for leisure activities because of their busy schedule.

Pharmacist:

The same routine is reported by majority of the pharmacist. Start their day at 9:00 and spend the whole day in their shop. it was reported that they open their shop between 9:00 to 10:00 am and stay their till 2:00 pm , after that they went to their house for Namaz and Lunch and stay at home for 3 to 4 hours and then open their shop in evening till late at night. On an average 100 to 150 customers visit them. Majority of the pharmacist owns their shop which is why don't get time a holiday or off.

Common Illness

Diarrhea is among the common issues which are witnessed by doctors, pediatrics and pharmacists. The recall of ailments is as follows



Definition of Diarrhea

According to physicians, pediatricians and pharmacists diarrhea is associated with loose watery motions which results into dehydration. It was reported unanimously that if diarrhea is not treated immediately it leads to its sever form which is considered to be the most dangerous, which later can results into death. The main cause highlighted for severity is because of mother lack of knowledge. it is identified by doctors and pediatrics that mothers are mostly unaware of the cause behind diarrhea. It was reported by doctors that parents belonging to lower socioeconomic class are less educated due to which they are mostly unaware of the actual cause

of disease and because of their financial crisis they try to treat diarrhea on their own. For them diarrhea is mostly because of teething. Doctors reported that Mothers are sometime unable to identify the underlying bacterial or viral infection which is causing diarrhea. Some related verbatim are:

“Doctor saab is kay daant nikal rahay hai iss leay is ko motion lag gaye hain”

“Doctor sahab is ko 3 to 4 din se diarrhea ho raha hai app is ko drip laga deen”

Dehydration – Diarrhea

It was reported across the board that dehydration is the main cause of death in diarrhea. Dehydration is of three types mild, moderated and severs. Doctors reported following sign for the following.

Mild form of diarrhea is indicated by 7-8 motion in a day with very little skin dryness and elasticity. In moderated form of dehydration Caused because of 10-14 motions in a day with Moderate skin dryness whereas in sever form of dehydration the frequency of motions increases up to 20 motions in a day with sunken skin, unconsciousness , fever, chest pain and less urination. Doctors reported that by accessing signs of dehydration they predict the treatment course for children.

Diarrhea -Causes

Following causes were reported by doctors, pediatricians and pharmacist.

Unanimously it was reported that mothers in lower class don't boil their water which cause diarrhea. Diarrhea prevalence is very high in those area where sewerage water is getting mixed with water supplied to houses. Mothers in lower class use that water for drinking purpose without cleaning it. (Multan, Hyderabad, Sukkur, Faisalabad).

Due to leakage in sewerage pipelines and environmental dust, children get ill. Mothers don't look after their kids in lower class where as in middle class and upper class mother take safety measures. Mothers belonging to upper and middle class are aware and always boil water for drinking and keep their children clean.

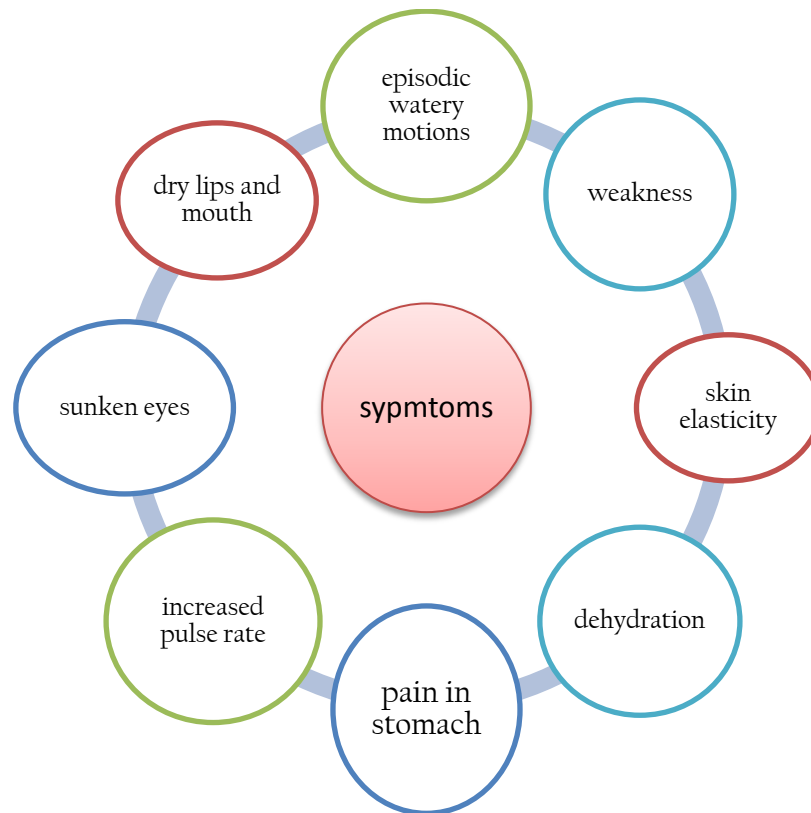
Another important cause is the bacterial or viral infection caused because of unhygienic condition and improper eating habits. Sometimes children are vulnerable to such disease because of their weak immune system, they eat unhygienic food available on street vendors in schools. Some participants believe eating anything picked from the ground cause diarrhea.

Feeding mothers' improper diet and their unhygienic condition is also responsible for this disease. They don't wash their hands before feeding or they don't take care of their own cleanliness, or they eat some hard food which makes their milk no digestible for the child depending on mother's feed.

People belonging to lower class in cities like Hyderabad, Multan , sukkur and Faisalabad are still not aware and don't stop there children eating from street hawkers.

Symptoms-Diarrhea:

Following symptoms of diarrhea were reported by doctors.



Diarrhea is referred to as.....

In Fgds diarrhea was referred to as **motion**. Whereas doctors and pediatricians reported that diarrhea has a different name in different locations.

- In Karachi and sukkur**Daast** was common.
- In Multan**pheray lagna** in sariki language.
- In Faisalabad**tatiyan lagna** in Punjabi.
- In Hyderabad and Hyderabad..... **Julab** is common.

Types -Diarrhea

Two types of diarrhea are reported.

Acute Diarrhea

It is the mild form of diarrhea which last for one to two days. It is caused due to parasitic, viral or bacterial infections. According to physicians and pediatrician acute diarrhea is mostly prevailed in undeveloped areas of Multan, Hyderabad, Sukkur, Faisalabad and Karachi because of above highlighted factors. According to doctors and pediatricians acute diarrhea is mostly reported among children. It is caused due to parasitic, viral or bacterial infection which entered in body through unhygienic food or because of weak immune system.

Chronic Diarrhea:

When diarrhea don't stops and exceeds from two day time period it is know as chronic diarrhea. Chronic diarrhea is the sever form of diarrhea caused because of irritable bowl syndrome or inflammatory bowl disease. It was reported by doctors that chronic diarrhea is less prevailing then acute diarrhea.

Prevalence of Diarrhea

Diarrhea prevail different seasons, it was reported that diarrhea is very common in summers. Adults and children both living in undeveloped areas suffer more with this problem. Diarrhea's

prevalence is different geographically, in sukkur, Faisalabad, Multan due to poverty adults and children are more prone to this disease. Its percentage is very high among young children of aged 1 month to 60 month.

People belonging to lower socioeconomic class, are considered to be most frequent sufferer of diarrhea. it was reported that due to their poor condition , financial crisis , un healthy eating habits their children get suffer from frequent episodes of diarrhea.

Maye kahan tak dihan rekhay, who apnay bacho ko chor ker kudh kaam per chali jati hai , bacha pechay un kay kaisay rehta hai un ko kuch pata nahi hota, kya kha raha hai , kya per aha hai, who beechari bhi paisa kamanay kay liya jati jo un kay liya zaroori hota hai
(Multan Pediatrician)

Perhi likhi maye hoti hai who apnay bacho ka khiyal rekhte hai yahan , aik tou pani ka itna masla hai or oper se maye bhi bacho ka khiyal nahi rekhte , un ko pata hi nahi hai kay pani boil ker kay milana chahiya.(Hyderabad Physician)

General Physician

According to general physicians, 40 to 50 % cases come of diarrhea.

Pharmacist

According to pharmacist 10 to 15 patients comes of diarrhea.

Pediatrician

Majority pediatricians reported that diarrhea is very common in low literacy areas.

Diarrhea -Treatment

The diarrhea treatment reported is almost similar, giving ORS in diarrhea is very common. Few doctors reported that in case of mild diarrhea they only recommend ORS. Among all ORS is of great importance in diarrhea treatment as it maintains water balance and electrolytes of the body during diarrhea. ORS is considered to be as First aid in diarrhea. it was reported that after assessing the condition of child medicines are suggested if needed other wise few reported that they don't like recommending any medicine in mild form of diarrhea.

In case of moderated and sever diarrhea ORS and combination of medicines is very common among all physicians and pediatricians. Use of 3rd generation antibiotic is very common.

Doctors:

Among doctors it was reported that, in treating diarrhea ORS is mandatory to maintain the water balance through ORS. Combination of medicines is suggested; in sever cases or when diarrhea is accompanied with any other disease. Use of 3rd Generation antibiotics is very common. Intra venous (IV) are very common among breastfed babies. Most commonly suggested medicines among doctors are Flagyl , Septran, Entamizole.

Pediatrician:

ORS is commonly reported. Pediatricians reported that they encouraged mothers to treat acute diarrhea with ORS and home Remedies. They believed that instead of giving strong dosage to young children, it good to treat them with home remedies and ORS.

Main tou kudh mayo ko bolti hai kay gharelu totko se ilaj kero , balkay main kudh bhi apnay bachoo ka kerte hoo, or jo totkay bati hoo who mere azamaye huay hai

(Multan Pediatrician)

In sever cases it was reported that they recommend 3rd generation antibiotics, Zincat-OD , Septran , Entamizole, Nigram . it was reported that usually when child is bring to them he / she is in sever condition for which they recommend drugs and if the child is on breast feeding then injectables are recommended because the water level of the body is very low.

Pharmacist:

It was reported by pharmacist that when mothers come with diarrhea problem ORS and combinations of medicine are prescribed to them usually by the doctors. Few pharmacist reported that if mothers ask for any medicine usually ORS with flagyl/augmentin (if accompanied with vomiting and fever). It was found out that theses are most common medicines which are suggested and majority recommend it if someone ask for . it was also reported that mother don't trust our advise and prefer to go to doctor for consultation.

Emotional connation of Diarrhea:

It is unanimously believed that Diarrhea causes serious concerns among parents as it can cause death if not taken seriously. Fortunately mothers are very conscious about Health issues but our

helpless because in sub urban and illiterate locations they are unable to secure their children due to following reasons:

- Poverty
- Lack of clean hygienic food
- Scarcity of clean water
- Environmental pollution
- In diarrhea mothers fear from child's weakness , unresponsiveness
- Mothers get disturb when their child cry

“Jab mere bacha rota hai tou main bhi ronay lagti ho kay is ko ALLAH jaldi se theek ker de”

“Doctor sahab hum apnay bachay ki aise halat nahi dekh saktay , dekhay kaisa nidhal ho raha hai”

Hence they need instant recovery for which mothers often asks for injectables .

“Doctor sahab app is ko injection ya drip laga deen”

“App is ko antibiotics likh , takay is kay motion ruk jaye”

Diarrhea-Medicines

As mentioned in above literature following medicines are used for Diarrhea's treatment

ORS

ORS is mandatory in Diarrhea. They are electrolytes and are used to balance body salts. It is used in primary stage treatment if diarrhea is not accompanied with cold, flu or vomits. If severity increases antibiotics or anti diarrheal is given in combination with ORS.

Injections

Injections and Drips are suggested in two conditions when the baby is on breast milk only or if the oral therapy fails. In severe condition & immediate recovery drips are suggested. Commonly used IV is Ringer & Nigram .It is noticed that injections are suggested by Pediatrician only if the condition is worst.

Anti Diarrheal

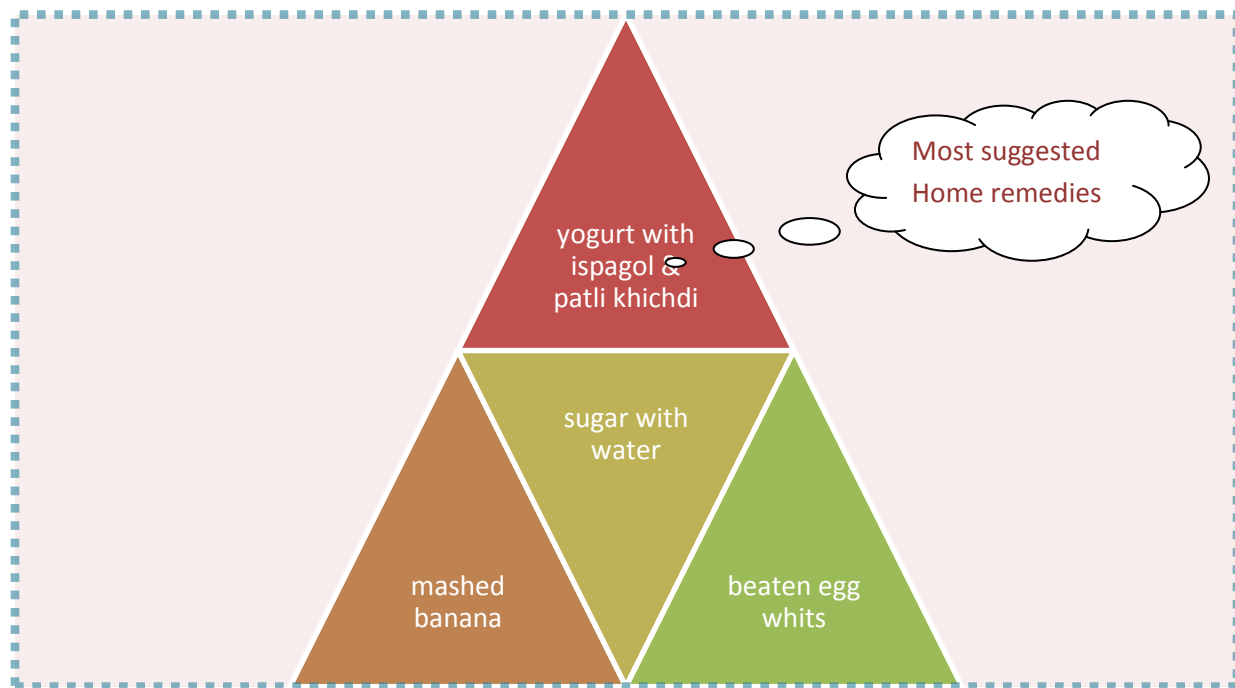
It is prescribed when children are suffering from frequent motions only. Some commonly prescribed anti diarrheal are Emodium, Entox, Keflex, Streptomagma .

Antibiotics

In sever condition of diarrhea which is caused due to bacterial, viral or parasitic infection antibiotics are recommended. Common Antibiotics: Metronidazole, Entamizole, Ceptron, Velosef, Gentacileen, Emoxil

Home Remedies

In the early stage i.e. in acute form of diarrhea ORS and ORT are suggested. In Chronic stage doctors suggest ORT with medicines and ORS is a must. Some suggested ORT by all are as follow.



Zinc Supplements

General Physicians

Very few were aware of the approaches in treatment of Diarrhea. Only 4 physicians out of 9 were aware of zinc supplements (Karachi). In other cities like Sukkur, Hyderabad, Multan and Faisalabad even very few were aware.

Pediatrician

Majority of them were aware of Zinc Supplements and considered it as a NEW APPROACH. Majority of them is prescribing zinc since last 1 to 1.5 years.

Pharmacist

Majority were aware of the product name but not with its functioning. Very few reported that it is given in diarrhea. It was reported that according to pharmacists very few doctors prescribe Zinc Supplements.

WHO /UNICEF:

General Physicians

Very few were aware of the approaches in treatment of Diarrhea. Only 4 physicians out of 9 were aware of zinc supplements (Karachi). In other cities like Sukkur, Hyderabad, Multan and Faisalabad even very few were aware

Pediatrician

Majority of them were aware of Zinc Supplements and considered it as a NEW APPROACH. It was reported that they are prescribing zinc since last 1 to 1.5 years.

Pharmacist

All were aware of the name but the information regarding WHO/UNICEF was very less.

ZINC PRESENTATION

“Zinc is a new and cost effective approach for the prevention and treatment of childhood diarrhea. It has been found that zinc supplements, in a doze of 20mg taken daily for 10-14 days during a bout of diarrhea, reduces its severity and duration. In addition, zinc supplements have been shown to have a preventive and long-lasting impact, reducing the number of episodes of diarrhea for an additional 2-3 months. For this reason, WHO and UNICEF have recently recommended that children be given zinc supplements, together with Oral Rehydration Salts/Oral Rehydration Therapy (ORS/ORT), for the treatment of acute diarrhea. Zinc is available in syrup and tablet form in Pakistan.”

REACTION ON ZINC:

Doctors:

Physicians who were aware of zinc supplements treatment totally agreed on the WHO / UNICEF protocol. WHO / UNICEF credibility was accepted by all. They suggested that mothers should also get awareness about zinc

Pediatricians:

All pediatricians agreed and reported that it true.

Pharmacist:

Majority claimed that they will trust only if the doctors suggest. All liked the zinc presentation and reported that it's a good cure. For them a credible source is what matters a lot. They all believe that parents usually don't take advice from them, they prefer going to a doctor in the same way for them doctors

Awareness/Zinc Supplements

Doctors:

Almost 60% were aware. The source of awareness was colleagues, work shops, seminars & medical reps. Physicians were not completely aware about WHO & UNICEF protocol for Zinc Supplements.

Pediatricians:

Among all pediatricians majority were aware about zinc Supplements. They get to know it through Colleagues, Seminar, and internet. Internet reporting was fewer. Majority reported about seminars. According to them Zinc Supplements is not very new but not very old.

Pharmacist:

Pharmacists reported that because of their busy schedule they don't get time to attend any seminar. For them the only source of information is medical reps. It was also reported that medical reps nowadays are not qualified , they don't give proper knowledge to us, their main concerned is to get their medicine sold. On general pharmacists were not aware about Zinc Supplements.

MOTHERS COMPLIANCE – Zinc Supplements

Doctors:

In their view mothers and fathers will definitely do the complete course of Zinc Supplements for 14 days. On asking reason it was believed that it is very important for a parent to know that their child will not get ill for 3 months, since diarrhea is a dangerous disease they will do it. Another reason is their financial crisis; the expenses they face in treating diarrhea will be reduced and it will make their child immune system strong. If we recommend them to give this dose for 4 days they will do it.

Pharmacist:

In their view parents are very concerned about their children's health Doctors recommendation is essential for compliance.

Pediatricians:

If complete information is given to parents regarding Zinc Supplements, and its reason for compliance they will complete the course (Across the board).

Agar hum un ko batayen gay to woh zaroor sunaye gi, kyo kay 2 to 3 months tak diarrhea na hona zaroori hai

Aik lower clas kay liya yeh bohat zaroori hai hai kay us ka bacha 2 to 3 months tak diarrhea se bacha rehya hai isley who log yeh course zaroor poray keray gey

Immunity wali baat logo ko itni samajh nahi aye gi or ziada zaroori hai kay yeh kam keemat ilaj hai.

Hum mothers ko yeh dawai de rahay hai kafi arsay se or who course pora kerte hai

Agar yeh bataye gaye kay yeh body main zinc ki kami ko pora kertay hai diarrhea honay se bachata hai tou zaroor use keray gaye

Jo lower class se belong kerte hai un kay liya yeh bohat eham ho ga

ZINC & ORS /ORT

Doctor:

Majority were unaware about this research. It was added that ORS is mandatory in Diarrhea whether they prescribe Zinc Supplements or not. Mostly doctors were unaware about zinc and ORS Combination Very few reported that they prescribe zinc with ORS and found it to be effective in treating diarrhea. it was seen that physicians were unaware about the protocol regarding Zinc Supplements in combination with ORS/ORT , doctors recommending this combination since not aware about the protocol but have reasons(discuss above) for recommending it in combination. The general awareness regarding Zinc Protocol was very low.

Pediatricians:

Pediatricians prescribing Zinc Supplements recommend it with ORS because it balances the salts of body and zinc Supplements help in balancing the zinc deficiency. Pediatricians prescribing Zinc with ORS reported that combination of zinc and ORS is very effective in treating diarrhea. Among all it was believed that Zinc Treatment is one whose side effects are not yet reported and no complaints are received for the care takers.

Pharmacist:

It was unanimously reported that very less percentage of doctors prescribe zinc supplements with ORS.

MEDIA HABITS

Television

They are all busy bees; don't have much time to spend with TV, Radio or even news papers. Though they do take out time for News channels like Geo, ARY, Express, KTN, ATV. News channels are very popular among all as it keeps them update about the current situation of country. It was generally seen that doctors are very concerned about current situation of country for which they take out for news channels. Mostly watched TV late at night when they return from their work. Their preferred viewing time was from 10:00 pm till 1:00am.

Radio

Among all few also listen to radio while driving. Among them local station channels, FM 106 , FM 103, FM 105 is very popular.

News Paper

News papers reading are not common. It was reported that when everything can be seen on TV then why to waste out time in reading Newspaper.

Hence the best medium for communication is TV, it is suggested that to spread awareness among mothers TV is the best source

Other than these following sources can also be used for publicity

- ▶ Pamphlets
- ▶ Sample of Zinc Supplements.
- ▶ Mobile SMS
- ▶ Posters in clinic

Suggestion for Advertisements

It is suggested that doctor's recommendation is considered to be the most important element. Mothers trust us completely whatever we say they believe. An ad showing a doctor saying all this about zinc supplements would be very encouraging for a mother to understand its importance. The WHO /UNICEF should be mentioned in the ad

Ad main yeh bataye kay bachay ko 2 to 3 months tak diarrhea nahi ho ga.magar aik dr bata raha ho yeh sab.

Ad main WHO or UNICEF ki sari batoo kay saat aik maa or bacha dikaye.magar WHO or UNICEF kay saath doctor ka hona zarori hai.

Ad main dikhaye kay bachay ko shrou main hi maa nay ORS kay saath ZINC diya, or 10 to 14 days main bacha theek ho gaya.

Ad main health worker ko dikhaye jo mothers ko is kay baray main guide keray

Ad ko local language main banaye , takay log samajh paye

ad main WHO or UNICEF kay message ko acchi tarah se bataye or hygiene ka bataye.

Other Information

Diarrhea & Dysentery

It was reported that, Dysentery is a severe form of Diarrhea. Dysentery results when the severity of Diarrhea increases due to viral or bacterial infection. Dysentery is caused by intestinal infection in the epithelium by bacteria or virus, which results in blood in stool. Dysentery is a severe form of diarrhea. It was reported by doctors that they recommend different drugs for diarrhea, not the one prescribed for diarrhea.

Medical Reps

It is reported that medical reps from different companies visit, but most of them are not fluent in explaining about their product background, which is why majority GPs and pediatricians do not believe until they provide them authentic research background. It was also reported by GPs and pediatricians that they don't get into medical reps' pressure in suggesting their drugs.

Complaints regarding Zinc treatment

There were none. Doctors prescribing Zinc Supplements are satisfied with its effectiveness. Few reported that we are aware about Zinc Supplements but not prescribing it because of lack of its knowledge.

The questions in mind are

- What is the actual function of zinc supplements in the body?
- Is it for balancing Zinc Loss during Diarrhea?

PPA & PMA

PPA and PMA are considered to be a good source of information (across the board). Among all, very few attend such work shops because of their busy schedule. Such lectures are their source of information about new medicines and treatments.

Campaign Recall

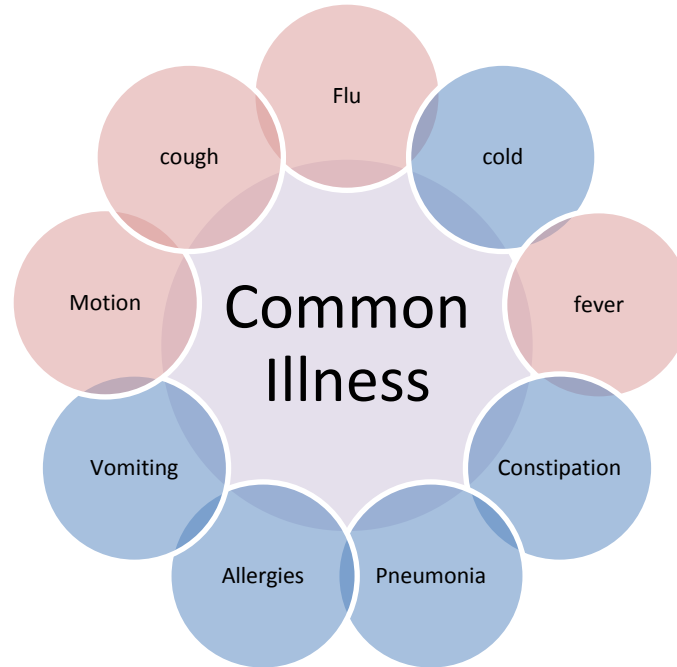
None reported any diarrhea campaign. ORS campaign is recalled by many doctors, but the message of the campaign was not clearly recalled.

FGD Report Summary
Of
POUZN

Daily Routine

Parents are generally super busy while having kids in their life, where they have so much to do in too little time. Females are commonly busy with the daily chores as well as the huge responsibility of being the first school of their child, playing a crucial role in children's nurturance; mothers are specifically responsible for the proper nutrition of their kids. On the other hand fathers equally vital figure in the family in the role of breadwinner, teaching discipline to his children and striving hard to provide the best to his children that he was once deprived of. Mothers living in joint family system get some of their responsibilities divided, while they perform daily chores, granny or other extended family member looks after young children or vice versa but main responsibility of children's psychological and physical development and social training still lies on mothers' shoulders. Young children bring some sources of concern with them, in which episodic hunger pangs, irregular eating habits and mouth objects- which causes stomach problem during teething are most common.

Common Illness



Among all the diseases, the red circled are most prevailing.

Perceptions Attached with Diarrhea

Motions are generally referred as diarrhea. When stool is loose, it's called simple motions but when it's not only watery but frequently excreted I-e 3 or 4 times a day with unpleasant odor, its called diarrhea. It takes toll on children's health, make them weak. Severe form of diarrhea in which blood comes along with the stool is called "paychish".

"Bohut ziyadah motion honay lagain to os main blood bhi aanay lagta hai, who paychish hoti hai"

In participants' opinion the color of stool in diarrhea turns yellow in summer whereas green during winter. Participants explain diarrhea in more detail, describing 3 stages of the disease in which in turns from mild to extreme.

- In first stage stool is loose and frequent
- In the second stage stool is water, frequent and uncontrollable
- Third form is considered to be as severe in which watery and frequently excreted stool comes along with blood

Causes of Diarrhea

Participants revealed so many reasons of diarrhea.

- They unanimously believe that contaminated water is one of the main causes of this disease; stagnant water on streets produces more germs and mosquitoes. Very few participants reported that they drink water after boiling it.
- Some people regarded teething as a source of diarrhea; as when teething begins, all manner of things are put into mouth, germs and all.
- Feeding mothers' improper diet and their unhygienic condition is also responsible for this disease. They don't wash their hands before feeding or they don't take care of their own cleanliness, or they eat some hard food which makes their milk no digestible for the child depending on mother's feed.
- Sometimes children are vulnerable to such disease because of their weak immune system, they eat unhygienic food available on street vendors and in schools. Some participants believe eating anything picked from the ground cause diarrhea.
- Children suffer from this disease also if mothers feed exceeding child's requirement or if infants' formula milk is changed.
- Change in weather is also responsible for this disease, viruses in the environment can also attack one if immune system is not strong enough to fight back.

Symptoms of Diarrhea

Symptoms of diarrhea in children reported by the participants are listed below.

- Drowsiness
- Weakness
- Loose form of stool
- Frequent watery stool
- Specific unpleasant odor
- Change in stool color
- Sinking eyes
- Pale skin
- Irritability

Diet Recommendation during Diarrhea

Participants preferably give soft diet which is easy to digest;

- Khichdi
- Sabut danay ki kheer
- Mashed banana
- Yoghurt with spaghol ki bhoosi
- Bread soaked in milk
- Porridge
- Beaten egg white
- Dahi and sooji

Among all first five diets are most preferred to the sufferer of diarrhea.

DIARRHEA - A Serious Illness

Diarrhea is perceived the most common and fatal disease in infants and children. Participants reported that it causes dehydration in body and if immediate action is not taken, more complex situation can occur and sufferer may end up dying.

“Mayra bacha bohot ilaj karanay k bavujood bhi is beemari main khatam hochuka hai. 2 maah ka tha.” (Sukkar, male, 31-40 years)

Participants told with great concern that body lose essential nutrition in loose motions, blood comes along, it takes away all body water, weight reduces and sufferer may die in the end.

DIARRHEA – Mothers Role

It is unanimously believed among all participants that the care taker (mothers) of the sufferer gets highly affected during the illness because they have to frequently change baby's diaper, since no one is usually willing to do this task, mothers can't expect any help in this regard. Child requires full attention, from nappy change to feeding, nappy rashes cause irritation to the child, child become weak and mothers becomes depress and stressful.

Diarrhea Treatment

ORS and flagyl are common first aid given at home in lower class; if this treatment does not work then mothers take their child to the doctor. A few parents prefer to consult doctors on first hand and majority of mothers do not trust on pharmacist or nurse to get advice. Mothers

reported that ORS is immediately given to the child in case of diarrhea even before consulting doctors. They told that it's was hard to make child drink ORS because of its taste but now it's become easy since it's available in different flavors.

Participants generally believe that ORS helps restore the water balance and wasted nutrition in the child's body. They took different names of ORS e.g

- Nimcol
- Pedialyte
- Smecta
- Enflour

DIARRHEA – What Doctors Prescribe

On consultation with doctor, participants witness following treatment trend.

- In mild or moderate condition ORS is mandatory, syrups (Flagyl, Metrodine & Augmentin) are also suggested depending upon condition.
- In severe condition ORS is mandatory along antibiotics and injections.

Diarrhea Course Compliance

Two schools of thought were found among participants.

- Most commonly in mild or moderate diarrhea, people discontinue medication; believing it's harmful for health or baby tantrums during taking medicine.
- Most commonly in sever diarrhea, people continue medication believing it should be complete so that disease do not relapse.

Perception Attached

Augmentin;

Majority of the parents have awareness about augmentin. They told that it's an antibiotic which is not prescribed for motions but it's prescribed when diarrhea is along fever. 1 week course is recommended.

Flagyl;

It's commonly recommended in motions and a part of domestic first aid box. It's not an antibiotic and can be injected. 2 to 3 day course is suggested.

ORS

It's the first treatment given in motions or diarrhea. Majority remember it by the name of ORS and its colors, for example *hara wala, neela wala aur peela wala*. It's available in different flavors but the name recall of different ORS available in the market was very poor.

Other medicines

These medicines suggested by doctors were also reported. Metrodine, Entamizole, Metrozine, Rigix, Keoplex and 21 tablet which is given during teething.

DIAHRREA – Treatment Expenses

All the participants believe that the child's health is above all expenses done on their treatment but regardless the physical and mental stress diarrhea affects the financial condition as well. Participants reported that it's an expensive treatment. Where general physician visit costs around 200 to 600 Rupees, Pediatrician visit may cost 1000 to 2000 rupees and in severe cases 5000 rupees.

Recovery Indications

It's reported that the following signs are indicators of recovery from diarrhea.

- The gap between two successive motions increase
- The form of stool changes from liquid to semi sold
- Increase in child's appetite
- Fresh and healthy looks

But all the above mentioned indicators are primarily subjective. When the diarrhea stops, and above indicators start appearing, mothers take the following actions;

- They stop giving antibiotics to their child, believing it's not good for health
- Continue to give fluids in the form of juices

- Emphasis on diet and recovery
- Keep an eye on unhealthy food

DIARRHEA –The after Treatment

Medicines

Most of the parents believe that medicines, especially antibiotics are harmful for health, causes constipation and damages liver; subsequently they discontinue the course when diarrhea stops.

“Dava dena band kar detay hain kyoun kah ziyadah dava denay say qabz hojata hai.” (Multan, female, 31-40 years)

Fluids

Most of the participants stop giving ORS when the child returns to normal condition but they still emphasize on other liquids like juices or plain water to restore the water content in the body. Some people keep giving ORS for a couple of days more if they see child is weak after motion stops.

Food

Majority of the mother show cautious behavior even after recovery. They continue to give soft and light food like *khichdi and dalya* when the child is back to normal condition, they gradually shift child to normal diet after complete recovery from diarrhea.

Zinc Presentation and Spontaneous Recall

Under stated text’s Urdu translation was read to the participants to avoid any language barrier.

“Zinc is a new and cost effective approach for the prevention and treatment of childhood diarrhea. It has been found that zinc supplements, in a doze of 20mg taken daily for 10-14 days during a bout of diarrhea, reduces its severity and duration. In addition, zinc supplements have been shown to have a preventive and long-lasting impact, reducing the number of episodes of diarrhea for an additional 2-3 months. For this reason, WHO and UNICEF have recently recommended that children be given zinc supplements, together with Oral Rehydration Salts/Oral Renyartion Therapy (ORS/ORI), for the treatment of acute diarrrned. Zinc is available in syrup and tablet form in Pakistan.”

Questions asked from the participants after zinc presentation

- What is zinc?
- Why 10-14 days course?
- Is it really helpful?
- Is it syrup?
- Why the ORT (gharailu totkay)?
- When to start this course?

Participants' Responses

Majority of the participants showed a poor recall of the zinc presentation content.

- Zincat- OD was most recognized among all
- Some participants responded that doctors prescribe it when children are suffering from diarrhea
- Remaining stimuli were not recalled

Zinc Presentation Analysis

Over all zinc presentation left a good affect on parents. Fathers picked up on cost effective approach, appeared satisfy on its low price. Mothers were happy that it'll not only cure their child but also help to prevent from the disease. The interesting thing for parents was its availability in the form of syrup.

Media Habits

Television

Its viewership has been reported by almost all of the participants. Females stay home so they get more time to watch it, male members return home late in the evening or at night so they get less

time to watch. Most of the women watch television from 7:00 in the evening till late night. Star Plus, ARY Digital, Geo News, Masalah t.v, Sony, NDTV, KTN (Hyderabad), Mehran (Hyderabad), Cartoon network and QTV are the famous channels among participants, especially drama channels are nearly watched by every woman.

Radio

Listenership is varied among different regions. Female listeners are found to be more in Karachi and Multan, in Hyderabad; males listen to radio more than their female counterpart. Whereas in Faisalabad, young mothers listen radio more. Most listened channels are: FM 103, FM 105, FM 88, FM106, and local stations.

Newspapers

Newspapers are read more by male members. Among all cities newspapers readership fellows are found to be more than any city. Jang, Ummat and express are famous in Karachi while other cities' newspaper readers also read local news papers i-e Kavish (Hyderabad). In Karachi female magazines and digests are quiet common among females, for example Khawateen digest, akhbar e jahan, Shua and Aanchal.

Internet surfing is not common among other cities than Karachi.

Parents Suggestions for Advertisement

In participants' opinion mothers' problems faced when their child suffers from diarrhea should be highlighted in advertisement. For example, frequently changing child's nappies is the biggest problem for mothers.

“Ad main dikhay aik maa ko jo baar baar napy change ker rahe hoo , or us kay bachay ko diarrhea ho gaya ho, who bohat pareshan ho,tou Dr us ko Zinc kay baray main bataye or us ka bacha us se theek ho jaye.”

“Ma ko pareshan dikhaye , or us ka bacha bohat bemar hai . Or doosri taraf aik hansta khelta bacha or khush ma ko dikhaye, or us ki khushi ki waga yeh dawai ka istimal batey”.

“Aisa ad dikhaye jis main aik Dr ho , aik health worker ho or aik hakeem ho , or who sab is kay baray main bataye or is kay faiday kay baray main bataye.jisay ppolio kay liya daraya tha or waldain ko emotional ker diya tha.”

Most of the participants suggested that following elements should be mandatory in the advertisement to attract woman more.

- Doctor

- Mother & child
- Easy and comprehensive words
- WHO & UNICEF should be mentioned in the advertisement
- Presence of personalities like Nadia Khan , Dr Shaista Wahidi and Amir Liaquat Hussain (Mux mothers)

Other Important Information

- On asking about 10-14 days compliance mothers reported that;

They will complete the course if it protects the child from diarrhea two to three months and if doctors instruct them to do so.

- On asking about Zinc with ORS / ORT

It is informed that ORS is mandatory after diarrhea so compliance will not be difficult for zinc.

- On asking about WHO and UNICEF

It is reported that they are familiar with WHO & UNICEF & consider it a credible organization which is working on health issues. Participants further said if WHO and UNICEF are promoting Zinc Supplements then it must be good.

- Diarrhea related Campaign Recall

None of the respondents recalled any diarrhea campaign.

Mostly recalled campaign was of ORS.

Way Forward

Zinc awareness is very low among mothers and its knowledge is low in doctors as well. Doctors need to be given zinc awareness first because they are suppose to be taken as a reliable source for the treatment and advice, parents understand and take their opinion authentic. Having largest viewership of television, it can be proved to be the best source for spreading zinc awareness through effective advertisement among masses. For mothers, taking care of their children during diarrhea is not only physically as well as emotionally stressful; to attract towards zinc treatment, the relief from the distressful feeling can be highlighted in the

campaign. To avoid doctor's fee most of the parents treat their child initially at home therefore highlighting of low cost zinc treatment might help attracting parents.