

POPULAR MEDICINE IN EGYPT: The Treatment of Diarrhea

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The Egyptian people obtain health care and advice from a wide variety of sources: relatives, neighbors, traditional practitioners as well as representatives of the modern health sector, including pharmacists and public and private physicians. The treatment of diarrhea is generally initiated in the home with home remedies or with widely available drugs purchased on the advice of a private physician or pharmacist. The only available estimate of sources of treatment for diarrhea in young children, based on a survey of sixty households, indicates that 22 percent use home treatments, 17 percent resort to pharmacies, 33 percent to private doctors, and 11 percent use public health care facilities.¹ However, there is a lack of information on the types of treatment employed as well as the reasons for pursuing a particular type of treatment.

The following description of diarrhea treatment in Egypt is based upon interviews with a small sample of parents, health care providers and pharmacists in Cairo and Daqahiliyya (Sept. 4-16, 1980). This is not the kind of in-depth long-term investigation which usually characterizes anthropological inquiry. Bearing this in mind, one should not take the findings as exhaustive or representative but only as suggestive of directions to pursue in a more thorough-going analysis. They may also be suggestive

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Proposal, Control of Child Deaths from Diarrheal Disease, Submitted to U.S.A.I.D., March 1980. More detailed information on treatment sources will be available at the conclusion of this study, late 1980.

of alternatives to consider in project design and implementation.

In addition to the network of public and private health facilities and personnel there are three important sources of infant diarrhea treatment and advice: pharmacies, traditional practitioners and home remedies, known to the family, relatives and neighbors of the child.

The pharmacies in Egypt's cities and villages represent an important aspect of the health care delivery system. For much of the rural and urban population, they constitute the first point of contact with the modern health care system. They dispense drugs on prescription and request as well as give medical advice. Not only do the pharmacies have a significant role in the delivery system, pharmacists have significant professional and commercial interests that need to be considered when introducing innovative delivery systems that depend upon their cooperation or that seek to circumvent their role as providers.

In the case of oral rehydration salts (ORS) rumors that it killed babies or caused sterility were traced back to pharmacists in both Menoufia and Daqahaliyya.² The problem was widespread. 43 percent of the mothers who did not use ORS in Menoufia, said it was because ORS kills children.³ The research group in Menoufia feels that the link with family planning was the cause of the rumors. However, the existence of the same rumors in Daqahaliyya, with the same source, suggests that the importance of the pharmacist should not be discounted.

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Personal communication, Saad Gadalla, Ardie Kielman. Fundamentalistic religious groups were also identified as a source in Manoufia.

3

Colin McCord, Evaluation of Menoufia, Egypt, Oral Rehydration Project, 5/21/80, p 5.

The role of traditional health practitioners in delivering infant health services needs to be examined more carefully. Factors such as long-standing relationships, ease of access, and cost contribute to their continued importance. Birth attendants and health barbers are sought out for their advice on a wide range of matters including child health. Only one birth attendant and one health barber were interviewed. The diarrhea treatments they suggested combined certain traditional elements, such as teas, with advice consistent with standard medical advice in Egypt including the cessation of breastfeeding.

Home treatment is also important. In the case of diarrhea, care is usually initiated at home, often using sweetened teas made with boiled water. Such existing remedies may provide a useful base for introducing home ORS mixtures. Lemon, a traditional ingredient, has been used successfully for flavoring home mixtures in the Daqahaliyya diarrhea study area. Operations research may test whether such remedies can be adapted to achieve an appropriate balance of electrolytes.

In interpreting terms and treatments for diarrhea, it should be borne in mind that, in Egypt, as elsewhere, the process of diagnosis and the selection of a course of treatment occurs in a social environment.⁴ For a given condition, such as diarrhea, people may disagree about the defining symptoms, the appropriate treatment and the ultimate causes. More than one explanation, natural and supernatural, physical and social, may be invoked at the same time and more than one course of treatment may be pursued.

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See Soheir Morsy. Illness Concepts and Structural Constraints: Health Care in an Egyptian Village. Unpublished paper.

Additional attention needs to be paid to this essentially social process of diagnosing an illness and selecting a course of treatment. Who are the key decisionmakers in a family's health behavior? Who decides to expend scarce resources of time and money on medical interventions?

Observations of clinic waiting rooms suggest that mothers are the key actors. However, in family interviews, fathers were active participants giving strong opinions about appropriate treatments. Both the Menoufia and Daqahaliyya projects have found it necessary to reach both mothers, through clinic sessions and home visits, and fathers, in public meeting and at the mosques to effectively influence and educate the community to change its health behavior.

DIARRHEA GLOSSARY

Eshāl is the general term used for diarrhea in adults and children. It may be accompanied by a fever. Most people interviewed considered four or more stools per day to be eshāl. Other characteristics mentioned, include liquidity, color changes and greasiness.

Nazla Ma'awiyya (gastro-enteritis, literally intestinal attack) refers to very strong diarrhea accompanied by vomiting in young children, generally six months to two years old (Cairo). It is considered to be dangerous, require immediate medical attention and to be a frequent cause of death in young children.

Dusentaria is strong diarrhea. One characteristic symptom cited is blood in the stools.

Masarini mashiya (loose intestines) is used for adults and children to refer to diarrhea.

Batni mashiya (loose belly) also is used for diarrhéa.

Masarini sayba : relaxed intestines.

Bī esahl: verb, to have diarrhea

ETIOLOGY OF DIARRHEA

Diarrhea in young children is attributed by the parents interviewed to a wide range of causes. The most common single cause mentioned is barda, a chill. Causes can be grouped, roughly, as relating to temperature, diet and cleanliness. Supernatural causes, notably the evil eye, are also cited.

Temperature

Diarrhea is said to result from over-chilling or over-heating and, especially, rapid changes in temperature.

Barda, chill, is the most commonly cited cause. Examples of temperature related causes:

- Sitting in a draft after bathing
- Sleeping without covers (even in summer)
- Wearing clothing that is too heavy or too light
- Bathing in cold water during the winter
- Becoming chilled after perspiring in hot weather

Diet

Diet is also cited as a cause of diarrhea, especially the consumption of inappropriate foods, or the excessive consumption of certain foods. Temperature of food and drink, especially water, is also seen as being a factor.

Examples of diet-related causes:

- Eating too much meat
- Drinking ice water

- 7
- Drinking water after eating sweets
 - Drinking unboiled milk
 - Eating fruits such as mangoes, watermelon and grapes (reflecting the seasonality of fruit, flies and diarrhea)

Lack of cleanliness

This was mentioned only twice

- 1) Dust
- 2) Flies

Teething

Children who are teething, between the ages of 6 months and two years are seen as having weak health. One father cited typical symptoms of this age group: red eyes, diarrhea, weight loss.

THE TREATMENT OF DIARRHEA: HOME REMEDIES

Initially, most simple diarrhea is treated at home with teas, foods and special preparations. The treatments, reflecting both traditional remedies and popular adoption of medical advice, emphasize liquids made with boiled water.

Herbal teas

Carawiyya Caraway Tea (qahiliyya and Cairo

Boil a small amount of caraway seeds in water, add a little sugar to sweeten. Cool and give to the child throughout the day.

yansoun Anise Tea (Daqahiliyya)

Prepare and serve as caraway tea.

Kamoun (Cairo), Cumin Tea

Boil with water, mint, lemon juice and a small amount of sugar.

na'na mint (Cairo)

Prepare with mint leaves and a little sugar.

Other liquids

Lemon (Daqahiliyya and Cairo)

Mix juice of 1/2 -1 lemon, 2 tsp. sugar, and one cup of boiled and cooled water.

Lemon Juice (Cairo)

Drink the juice of five lemons early in the morning.

Tea with lemon (Cairo)

Fruit juices

Rice water

Nasha (cornstarch and water)

Other treatments

Lemon juice with aspirin (Cairo)

Samghre and Kharub (Cairo)

Gum arabic and carob mixed with sugar and water

Antroquine and lemon juice

Contact

Breast feeding

There was disagreement among the mothers and fathers interviewed on whether or not to stop breastfeeding. Several endorsed stopping all breastfeeding until the diarrhea ends, citing the advice of doctors and pharmacists. This view was also held by a traditional birth attendant interviewed. A health barber said that the fat in breast milk is responsible for the development of nazla ma'awiyya from simple diarrhea. However, many women continue to breast feed their infants throughout an incident of diarrhea (especially in Daqahiliyya). One woman noted that mothers "believe that if the baby does not eat, he will die." Furthermore, mothers continue because of the discomfort involved in stopping abruptly and because they believe that if they stop for four days their milk will dry up.

Although bottlefeeding is still not the rule in Egypt, especially in the early months, there was general agreement on the need to stop the use of milk during a diarrhea episode.

Feeding

Mahalabiyya

Boil 1 - 2 cups of water. Sweeten with 3 - 4 tsp. sugar.
Cook to thicken with 1 - 2 tsp cornstarch (nasha) mixed into a paste with cold water. Flavor with the juice of one lemon.
Cool and serve.

This is ordinarily made with milk, but prepared with water,

mahalabiyya is frequently mentioned as a diarrhea food.
(Daqahiliyya and Cairo).

Vegetable broth Broth of vegetable soup (salted).

Boiled potatoes Salted

THE TREATMENT OF DIARRHEA: THE PHARMACY

In Egypt the first point of interaction with the modern health sector is frequently the pharmacy. The popular terms for doctor (dokteur, tabib) are applied equally to pharmacist and physician. Pharmacies are widespread in Egypt. Drugs are cheap, relative to other countries, and sold without prescription. An added economic advantage is that by going directly to a pharmacy, a family avoids the fee for an office visit to a private doctor. The pharmacist may be asked for and give advice. Customers also request specific drugs, based on their own experience and the advice and experience of others.*

In interviews with eleven pharmacists in Daqahiliyya and Cairo, the following emerged:

1. Recommended treatment

The treatment recommended, for an infant with simple diarrhea without fever or vomiting varied in the sample of pharmacies. The most frequently recommended drugs were Nimarsol, Chloramphenicol, Streptomycin, and Enteroquin.

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Because of this and low literacy levels, especially in rural areas, some pharmacists reported resistance to changes in packaging. Pharmacists also report beliefs that certain forms of medicine (e.g. liquids) are stronger than others (specifically powders).

2. Rehydration

No pharmacist suggested rehydration as part of treatment of diarrhea. When asked specifically about rehydration and rehydration salts by name (Rehydran and Oralyte), most were willing to dispense the packets in cases of severe or long-standing diarrhea as a replacement for other fluids. Two pharmacists, when asked for rehydration salts, prepared expensive glucose/saline solutions.

3. Dosage

Almost no variation in dosage instructions was found for most of the drugs recommended. However in the case of rehydration salts, there was considerable variations in recommended dilution, perhaps because pharmacists suggest them less frequently and are less familiar with the correct proportions:.

Rehydran:

Correct dilution: 1 packet in 200 cc or one glass of water

Instructions given: -- 1 packet in 200 cc
 -- 1 packet in one glass
 -- 1 packet in 100 cc
 -- 1 packet in 1/2 glass

Oralyte (in the diarrhea study area):

The pharmacist prepares the solution himself to avoid mistakes made by the mothers. He reported the proportion as 3 packets to 1/2 liter of water (6 times the correct dilution).

4. Cost

There was almost no variation from fixed drug prices. However the total cost of recommended drugs varied from .34 to 2.69 LE (68 LE = \$1.00). The most expensive treatments recommended were the prepared glucose solutions. In contrast, Oralyte has been priced at .03 LE in the Daqahiliyya study of commercial sales.

5. Feeding

No pharmacist volunteered feeding or breastfeeding advice. When specifically asked, all but one recommended stopping all breastfeeding from one to four days or until the diarrhea stopped. Most recommended stopping all or most food intake.

<u>Mansoura</u>	<u>Recommended treatment</u>	<u>Upon specific request</u>	<u>Cost</u>	<u>Other advice</u>
<u>Pharmacy One</u>	Pentrexyl (1.91) (250 mg ampicillin trihydrate) 1 tsp, 4 times/day) Pectokal (N) (.40) (Desinfectant, 1 tsp 3 times/day)	3 packets Rehydran (.12) (Dissolve 1 packet in a cup of water, give to baby every 15 minutes	2.43 LE	Stop all feeding including breast feeding
<u>Pharmacy Two</u>	Diapec (.43) (Neomycin, Sulfaguanidine, 1 tsp every 3 hours)	10 packets Rehydran (.40) (dissolve 1 packet in 200 cc water, give 1 large dessert spoon every 10 minutes)	.83 LE	Stop breast feeding until diarrhea stops
<u>Pharmacy Three</u>	Nimarol (.34) (1 tsp every 6 hours)	10 packets Rehydran (.40) (dissolve one in a half glass of water - give 1 tsp every 10 - 15 minutes)	.74	No breast feeding rehydran only

Note: All prices in LE, \$1.00 = .68 LE

<u>Dikirnis</u>	<u>Recommended treatment</u>	<u>Upon specific request</u>	<u>Cost</u>	<u>Other advice</u>
<u>Pharmacy One</u>	Streptopenicol (.76) (Chloramphenicol, Streptomycin, 1 tsp 4 times/day PeckoKol (.40) 1 tsp 4 times/day	8 packets Rehydran (.40) (dissolve one packet in 100 cc water)	1.56	Stop breast feeding for 4 days Replace with Rehydran
<u>Pharmacy Two</u>	Nimarol (34) (1 tsp 4 times/day)	Nothing necessary	34	No milk or feeding until diarrhea stops
<u>Pharmacy Three</u>	Cidocetine - S (.57) (Chloramphenicol) 1 spoon 3 times/day Gabiozol (.35) (1 tsp 3 times/day)	1/2 liter	1.77	Stop breast feeding one day Give caraway tea, mehaiabiyya made with milk

74

Riad (Commercial sales study area)

Pharmacy One

- Nimarol (.34)
(1 spoon/6 hours)
- Chloramphenicol is
given routinely if
vomiting or fever is
present

10 packets
Rehydran .40.
for severe diarrhea
one packet in 200 cc water
(boiled) 1 spoon every
10 minutes
Oralyte none
available for 2 weeks
only dispense as
liquid - 3 packets in
1/2 liter of water for use
full strength

Cost

.14

No breast feeding
for 3 days
No food or milk
Give rice water,
caraway or
anise tea

Pharmacy Two

- Enterotoxin (.50)
- Streptomycin
- 1 tsp every 6 hours

10 packets Rehydran (.40)
One packet in one glass of
boiled water 1 tsp/10 minutes
Oralyte - none for one month -
does not wish to carry it because
villagers feel it kills babies -
was a case in village of child
who died after taking one.

.90

No breast feeding,
milk or food until
diarrhea stops
Give caraway or
anise teas instead
of milk

<u>Cairo</u>	<u>Recommended treatment</u>	<u>Upon specific request</u>	<u>Cost</u>	<u>Other advice</u>
Pharmacy One	Streptopenicol (.76) (Chloramphenicol, Streptomycin base, 1 spoon 4 times/day) Enteroquin (.43) 1 spoon 4 times/day	1 litre 5% glucose-Saline solution (1.50) (to replace water)	2.69 LE	No milk for 24 hours Boiled rice without butter Light teas, juices Alternate breast feeding with infusions

Pharmacy Two

Refused to dispense drugs without doctor's prescription

16 Pharmacy Three

Pectokal (N) (.40) 1 teasp. every 6 hours	Rehydran 5 packets (.25) Dissolve in one glass of boiled, cooled water with one tsp. sugar added Drink one glass every six hours	2.03 LE	Give caril (1.38) (carrot and rice powder) prepared as Rehydran with sugar instead of food and breast milk
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