

Clean drinking water is necessary to prevent water borne diseases – Prof. Dr. Zareen Fasih

Prof. Dr. Zareen Fasih is a renowned Paediatric of the Country. She is Head of the Paediatric Department of Ziauddin University Hospital. She is also the General Secretary of Pakistan Paediatric Association (Centre). Muhammad Fareed, Publisher & Managing Editor, Medical Review take her exclusive interview. Following are the experts of the Interview.

Q1 - Tell us something about yourself.

Ans - I wanted to be a doctor but most of my times during my childhood, I spent in sports and painting. Me and my friends at Habib Girls School would be in the playground playing basketball, throwball, baseball and table tennis.

As I had a deep interest in painting and I use to do oil water colour painting, I received President Award by President Ayub Khan in 1968 for best painting among Pakistani children. I also received Russian Award in 1969 in Painting and APWA Award in 1970 and many more.

During my Undergraduate years at Sindh Medical College, I stood first in my first, second and third years and topped Karachi University with distinctions and Gold Medal in Surgery & Medicine. I achieved FCPS Paediatrics in 1988, DCH from Royal College of Glasgow in 1989, MRCP in 1996 and MRCP-CH in 1998.

Presently, I am the Chairperson of Paediatrics Department of Ziauddin University since 1999. I am also the Secretary General of Pakistan Paediatric Association (PPA) Centre since October 2010. My other commitments are:

- Advisor for Gardasil Committee
- On the Advisory Board for Asthma interventions in children
- Member of Neonatology Group of PPA
- Member of Hospital Infection Control Committee
- Supervisor for FCPS Paediatric since 1992

Q2 - What are the most prevalent diseases among the children and how they can be prevented.

Ans - If one look at IMR in children in Pakistan and under 5 mortality rate, the four killer diseases in Pakistan are Gastroenteritis, Pneumonia, Neonatal Sepsis, Infectious diseases of Measles, Typhoid Fever, Malaria and Pulmonary TB. Malnutrition also prevails and 70 percent of our children fall below the average weight for their age.

If we improve our EPI coverage to more than 85% we can prevent all the vaccine related preventable diseases like TB, Polio, Diphtheria, pertussis, Tetanus, Measles, Hepatitis B, Hemophilus B infection like Meningitis and Phenomena.

With the administration of other vaccines like Bacterial meningitis, Pneumonias, Tonsillitis and otitis it can be prevented in children. Typhoid and Cholera vaccine will prevent Typhoid fever and Cholera.

By training our Birth Attendant, we can prevent Neonatal Tetanus, Neonatal Sepsis and Birth asphyxia.

Q3 - The effects of water and air pollution are evident among children in the form of various diseases. How can it be minimized.

Ans - Water borne disease like Typhoid fever, Hepatitis A, Cholera, Shieggella and Amaeobosis can easily be prevented by having clean drinking water supply for our population.

Provision of clean drinking water is the most cost effective intervention to decrease the morbidity and mortality due to water borne diseases.

PPA is installing Water Purification Plants in the flood affected areas like Thatta, Jacobabad, Multan, Muzafargarh, etc to help the families in the prevention of water borne diseases.

Q4 - The child mortality ratio is high in our country, how can it be reduced.

Ans - The infant mortality rate and under 5 mortality rate can only be reduced, if we follow the Millennium Development Goals (MDGs). MDGs addresses the alleviation of poverty, provision of clean waster supply, improving EPI coverage, addressing to maternal and neonatal care and IMNCI program for early diagnosis and treatment of common Paediatric problems.

Pakistan is one of the country where still the infant mortality rate is 1,50,000 and under 5 mortality rate is 76,000 and our MDGs goals is to decrease our mortality rate. We have to work hard on this. There are five things which need to be done.

1. Improve our vaccination coverage: If we increase our EPI coverage to more than 80% we can decreased the incidence of infectious diseases like Measles and TB and it will help in decreasing our morality rate.
2. Decreasing malnutrition: If we address to malnutrition in our children and increase their nutritional intake then we can decrease our infant mortality rate. The government job is to decrease the poverty level so if the government addresses the poverty issue and increase per capita income of our nation then the people will have more money to feed their children and it will improve their nutrition.
3. Education and awareness: This is the government job to increase the literacy rate of our population and we have studies which show that if the mother is educated she will be aware of their child, food and nutritional requirements and significance of vaccination.

Pakistan is an agricultural country and God has given us everything. But mother does not know that for her six month old baby, she can prepare home made foods like kitchri, boiled potatoes, kheer etc and give it to him/her so this is called unawareness and that is something that needs to be addressed.

It is the government responsibility for the provision of clean drinking water. WHO says that it is the right of every human being and they should have access to safe and clean drinking water. But what is happening, we are all drinking contaminated water which is full of organisms like Typhoid, Hepatitis A, Cholera and our children die due to Typhoid and Cholera etc. So if we address the provision of clean drinking water, we can decrease our mortality rates.

Q5 - Due to dehydration, large number of children suffer from various ailments. Now that awareness has been created has there been sufficient reduction in these disorders.

Ans - One of the main reasons, why our 50% children die due to diarrhea, severe. If we look at the statistics, of course the number of children now dying of dehydration is less than what it used to be 10 years back. But still Pakistan is among the top five countries where we see children dying of dehydration. It is a very shameful condition. If you look at Sri Lanka, Bangladesh, India they have 90% literacy rate. Their children have 90% vaccination coverage and they know that clean water is very important and this is all because of education.

Pakistan still has children who die because mother gives contaminated water to their children. She does not know that what are the preventive methods that why our children get Diarrhea, Rota-virus infection, Cholera and Dysentery.

Q6 - Which are the water borne diseases that the children suffer from. Have measures been taken and awareness produced among women to reduce it.

Ans - As I said earlier, clean drinking water is necessary for all. The contaminated water gives diseases to the children. Many of the water borne diseases like Hepatitis A, Cholera, Typhoid, Dysentery are preventable diseases. In Pakistan, the government is not doing their job and the organizations like Pakistan Paediatric Association (PPA), Pakistan Medical Association (PMA), College of Physicians and Surgeons Pakistan (CPSP) and College of Family Medicine are the ones who are doing their job and are trying to arrange Seminars, Workshops where Family Physicians, GPs and Paediatricians are being taught how to counsel the parents for prevention of diseases. We also arrange CME on Common Paediatric problems.

My emphasis is on prevention. If you teach a mother how to prevent Typhoid fever, then you will prevent Typhoid fever in the whole family and that is important.

Clean drinking water means that if you cannot afford mineral water than boil the water. Clean your hands with soap and water without having and giving foods to the children. All foods available on the road side must be avoided because it is full of dust and germs.

Q7 - Which are gastrointestinal diseases that affect the children most and what are the preventive measures.

Ans - The commonest cause of Acute gastrointestinal diseases in children is Rota-virus. 80% of the children less than 1 year of age come with Diarrhea and there is no blood or mucus in stool, that cause Rota-virus. It is preventable. This is a viral infection. If mother has awareness towards hygiene then chances of getting Rota-virus infection are decreased. But another important way of preventing Rota-virus infection in our children is by administering vaccines. Rota-virus vaccines are available in Pakistan.

Q8 - Due to inflation and poverty malnutrition affects children most, they become weak and become more susceptible to various diseases. How this situation affects the children.

Ans - Pakistan is a poor country. If you look at the per capita income of average Pakistani it is very low. Presently more than 50% of our population is living below the poverty level. Recent inflation in all food commodities has made the situation more worse. Those families who used to be called white colored have difficulties to manage and have become very difficult for them to survive.

So what happen is that there will be compromise in the quality of food. So the child does not get sufficient proteins. This results in malnutrition. Once the child gets malnutrition, the child immunity decreases and become susceptible to infections like diarrhea, hepatic, TB etc.

Government need to address all these issues. Govt should take measures that can improve the financial condition of our population.

Q9- Has awareness been created by doctors and health workers to inculcate hygiene and clean living conditions for the health of the children.

Ans - The doctors are aware of hygiene, clean food and water, but the question is how many doctors spend time in telling these things to the patients.

Q10 - What are the measures necessary to reduce the child mortality ratio. What are the numbers in rural and urban areas.

Ans - If we look at water borne diseases, they are more rampant in urban areas. If you look at Karachi, Karachi population is 1.8 billion. 50% live in slum areas and the slum areas have the problem of contaminated water and sewerage problem. There you will find water borne disease like Cholera, Typhoid, etc. If we go to the rural areas, the problem is different, there water is clean they don't have as many water borne diseases.

Main problem is of unawareness and they are not vaccinating their children because of lack of education and awareness. There we see problems of polio, TB, Measles, Mal-nutrition etc. So the problems in rural and urban areas are different.

Q11 - Has research work been undertaken to reduce the prevalent diseases and their prevention.

Ans - If you look at the statistics, Pakistan is very poor in keeping statistical data, but there are two surveillance studies going in Pakistan.

1. Surveillance for polio mellitus
2. Surveillance for polio measles.

For these two conditions, when child comes with Flaccid paralysis or Measles, we are sending their stool sample to NIH, Islamabad for stool culture for Polio virus and we are also sending their blood sample for Measles virus. So now we have clear data on these two diseases in Pakistan and we have data now for the last five years.

Coming on the data, we have had 34 confirmed cases in Pakistan in 2011 of which Sindh has 18. Recently a case has been confirmed in Gadap area of Karachi and one in Hub area.

Q12 - What are your suggestions to improve the health of children and make them less prone to diseases.

Ans - My suggestions are that Government need to take the situation very seriously. Our policy makers should allocate more money on health and education. When we start education in our population and create health awareness, we can achieve.

PPA as an organization is working for the past 6 decades. We are arranging Seminars/Workshops. We are part of polio eradication program and mal-nutrition program. We are addressing these problems. There are 2000 registered Paediatricians with PPA who are qualified and trained. All of them in their own capacity are addressing these issues.

We have to take the issues at the national level. We need involvement of international and donor agencies like UNICEF, WHO, USAID, Save the Children etc. who can be partners in the projects to address these issues.

Q13 - Do you want to add anything else.

Ans - The 50 percent of Pakistani population is Paediatric population. If we don not take these issues, we will end up with our future generation being less educated and unhealthy. If we want better Pakistan, then we have to invest in education and health of one future generation.