UNIVERSITY OF JAFFNA

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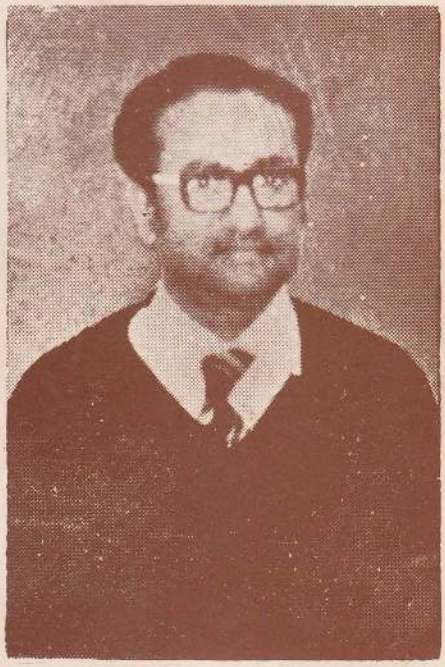
DR. ARUNASALAM SIVAPATHASUNDARAM

Second Memorial Lecture



Socio-cultural Challenges in Child Care

by

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Socio-cultural Challenges in Child Care

The Vice-Chanceller Speaks

It gives me great pleasure to preside over this lecture to mark the memory of the Late Dr. A. Sivapathasundaram.

Dr. Arunasalam Sivapathasundaram was born in 1939 in Puloly, Point Pedro and had his early education at Vadamaradchy Hindu Girls College and Hartley College.

He obtained the Diplomas in Child Health in Sri Lanka and in London in 1970 and 1975 respectively and the membership of the Royal College of Physicians in 1975. During his career, as a Paediatrician, he was disciplined and conscientious and served in many parts of the Island. The late Dr. Sivapathasundaram was one among the most celebrated paediatricians in the Island, whose services are well worth remembering and whose qualities are worthy of emulation.

It is very appropriate that this Memorial Lecture is being delivered by Professor C. Sivagnanasundram, Professor of Community Medicine about whom an introduction is scarcely necessary since he is well known to the University Community as well as to the Public.

Socio-Cultural Challenges in Child Care

Mr. Chairman, Members of the family of Dr. Sivapathasundaram, Members of the Council, Colleagues, Ladies and Gentlemen and Students,

It gives me great satisfaction and pleasure to deliver this second Sivapathasundaram memorial oration. I thank the sponsors and the Board of the Faculty of Medicine for inviting me to deliver it.

My subject, is "Socio-Cultural Challenges in Child Care". The scope of the subject is vast, it is as old as the human child and is ever growing. New challenges and demands are brought into the Sociological field, introducing new terms to describe them — Socio-Economic, Socio-Cultural, Socio-Political and so on. All these challenges affect the welfare of the human being, in all his stages, at first the infant, mewling and puking in the nurse's arms, then the whining school boy, with his satchel and shining morning face, creeping like a snail, unwilling to school[1]. Of course inbetween the infant and the school boy described by Shakespeare is yet another stage the toddler or the pre-school child, passionately described by Pandian Arivudai Nambi as:

'குறுகுறு நடந்து, சிறுகை நீட்டி, இட்டும் தொட்டும் கவ்வியும், துழந்தும்,
நெய்யுடை அடிசில் மெய்பட விதிர்த்தும் மயக்குறு மக்கள்'[2]

These early stages of the human life forms the subject of my talk today.

I believe that it is a suitable topic to honour the memory of a man who as a paediatrician not only cured sick children, but also had a holistic approach to child health and was interested in the preventive and promotive aspects of child care. Association with a person like the late Dr. Siva occurs to anyone by fortune. I was one of these people with luck. My association with him started in 1981 at the Base Hospital, Point Pedro, where I took two of my children for treatment by him. Later I approached him to participate in the clinical teaching of AMP students at Point Pedro. He was a teacher par excellence. When Dr. Siva moved to the teaching hospital, Jaffna, the medical students benefitted by watching him practise Paediatrics. In Jaffna, he became a close colleague of mine and we were co-examiners in Paediatrics and in a play co- actors.

I take the liberty to repeat the words of a colleague of both of us about Dr Siva:

"Dedication to duty and cause, courage in adversity, simplicity, honesty and integrity are the attributes of Dr.A.Sivapathasudaram. He followed the Gandhian principles, sincere without making a fuss about it. He instilled a sense of responsiblity and a spirit of service in those who worked with him. He never sacrificed principles for expediency. He could have amassed wealth

with his clinical ability and popularity, but he elected to serve the poor patients in the hospital".[3] I am sure that those who knew Dr. Siva even for a short period would endorse these words by Dr.S.Ponnambalam with all sincerity.

He was a poor child's doctor, and was totally aware of the socio-cutural and political milieu in which his children were brought up, whether it be Ratnapura, Balangoda, Ragama, Kuliapitiya, Matara, Anuradhapura, Colombo, Chilaw, Pt. Pedro or Jaffna everywhere he worked. Siva was above race, religion or region. With these few words about Dr. Siva, I move on to a subject, he would have approved.

Man cannot be isolated from society. His health is intimately connected with the socio- cultural milieu in which he lives. Any positive or negative effect of this environment is best seen in his childhood. In a favourable environment the child grows at his best — physically, socially, mentally and spiritually. In an environment where peace is not the aim of politics, where social necessities are deficient or given low priority, and where the customs and practices have elements inimical to health, childhood is insecure and faces many challenges. The chance of attaining adulthood is low. Death in infants is high. Its rate, the infant mortality rate is therefore taken as a measure or index of the socio-economic and health status of a society in which they live.

Infant mortality rate (IMR)

The IMR is the number of deaths of infants up to the age of one year per 1000 live births in a given year. Ninety years ago the IMR in Sri Lanka was in the region of 180, fifty years ago it was 140. Today it is about 20. Table 1 shows the fall in the rates in recent years.

Table 1.

Infant mortality rates — Sri Lanka

Year	*Rate/1000 live birth*
1945	140
1950	82.0
1955	71.0
1960	57.0
1965	53.2
1970	47.5
1975	45.1
1980	34.4
1985	24.2
1989	19.4

* Provisional

Source: Registrar General

The fall in the rates have been attributed to various factors — control of malaria mortality (especially the dramatic fall in all death rates in the late forties), and improvement in environmental sanitation, water supply, nutrition,

standards of living, and education especially that of the women and medical care, which includes the use of antibiotics.

The IMR of a country as a whole, although indicates the socio-health progress of a country does not show the socio-health disparity among the various sections of its people. It varies with the region, districts, MOH divisions, PHM areas and so on. It also varies with, social groups, caste groups and religious groups. In many countries, information based on smaller geographical areas or social groups is not available. Even when it is there, it is not accurate; and on these false figures, arguments and counter arguments are built up by library based researchers to show causes for the disparity in infant mortality rates and other death rates. Here is where the errors of these conclusions lie and their statistics lies. I place before you certain data which illustrate what I have said.

Table 2

Sri Lanka: Infant mortality rates
Selected districts, 1985

District	*IMR*	*District*	*IMR*
Polonnaruwa	9.0	Kegalle	22.2
Mullaitivu	10.6	Kurunegala	24.3
Hambantota	12.3	Colombo	32.2
Vavuniya	12.7	Badulla	33.5
Jaffna	16.9	Ratnapura	33.8
Galle	17.2	Kandy	35.5
Matale	17.4	Nuwara Eliya	46.2
Gampaha	17.5		
Kalutara	21.3	**Sri Lanka**	**24.2**

Source: R.G. Dept. Quoted in Annual Health Bulletin, Sri Lanka 1989

Table 2 shows the differences in the IMRs of selected districts in Sri Lanka. The IMRs range from 9.0 in Polonnaruwa to 46.2 in Nuwara Eliya. The difference may be due to several factors usually associated with infant deaths, and have been mentioned earlier or it may be that the registration of infant deaths is not complete.

Calculation of IMR depends on two registrations — registration of live births and registration of deaths of infants; The former can be taken as nearly complete because on the registration of a live birth depend the benefits the child and family would receive. But registration of the death of a child under one year especially when he is a week or a month old, when he has not even a name is questionable. The death of this "no name child" is unlikely to be registered. We have queried the low rates qouted for Jaffna, Vavuniya and Mullaitivu. In fact the rates for Polonnaruwa and Hambantota are also questionable.

Inaccuracy of published IMR

Although a report on a survey to estimate the completeness of birth and death registration in Sri Lanka[4] showed almost complete registration in 1980 (births ranging from 94% to 99% and deaths ranging from 92-94%) our experience with infant mortality in the area of MOH kopay is not so. In fact the Annual Health Bulletin of the Ministry of Health admits that "not much attempt had been made to evaluate the completeness of registration at district level"[4]

In 1983 we studied 97 infant deaths that took place in the area of MOH Kopay with a population of 111,000 and 2738 births during the year[5]. The infant mortality rate was 34.5 per 1000 live births as opposed to the figure of 18 given to the Jaffna district. We found that only 35 of the 97 infant deaths were registered. This would have given a figure of 12.8 in official statistics for Kopay region in tune with the published 18 for Jaffna District. But the actual figure is 35.4. In short the official figure of IMR is not reliable. Unreliable statistical information on health and disease is the first challenge to health care, especially that of the child.

Table 3

IMR in university field project areas and Kopay

	Area	*Population*	*Live Births*	*Infant Deaths*	*IMR*
1.	Sri Lanka (1989)	—	—	—	28.4
2.	Kotte (1981)	51,000 Approx	—	—	23.2
3.	Hindagala (1982)	17,636	400	08	20.0
4.	Baddegama (1981)	23,744	484	15	31.0
5.	Kokuvil-Kondavil (1981)	28,086	557	26	46.7
*6.	Kopay MOH Area (1982)	111,649	2738	97	35.4

1. Annual Health Bulletin, Sri Lanka (1989) Ministry of Health.
2. Annual Report (1983) Community Health Project, Kotte, Department of Community Medicine, University of Colombo. (Mimeograph document)
3. Malcolm A Fernando (1983) A Report of the Hindagala Community Health Project for the years 1981 and 1982. Department of Community Medicine, Peradeniya.

4. Preliminary Report (1981) Community Health Project, Ruhuna University College. (Mimeograph document)

5. Sivarajah N (1988) Survey of Kokuvil-Kondavil Community Health Project Area, Department of Community Medicine, Faculty of Medicine, Jaffna.

Table 3 shows some IMR statistics based on reliable data, because they are from field project areas of the 4 Faculties of Medicine. It also shows the IMR for Sri Lanka which cannot be reliable and the IMR for Kopay MOH area already discussed by me. You see the differences and these reflect the socio-economic and health status of the areas concerned. Kotte the Field Project Area of the Colombo Faculty of Medicine and Hindagala field area of Peradeniya Faculty show IMR in the region of 20-23. Baddegama, the field area of Ruhuna shows 31 and the Jaffna project area of Kokuvil-Kondavil shows 46.7. It is even higher than the figure for Kopay area (35.4) to which Kokuvil and Kondavil areas belong. The causes for these disparities are the ones that pose a challenge to community child care. In the 1983 study of the Kopay region[5], we pointed out that half the infants deaths were in families of labourers who predominantly belong to the low social caste. But the population of the low caste group in the study area obtained from various sources was in the region of 30-35%. In our study the castes of families appeared to be a factor associated with deaths, the "low caste group" being more vulnerable because they are handicapped in the important socio-economic parameters — environmental conditions, educational status and income. We recommended small scale community based studies to expose the risks due to social disadvantages. It is possible that apart from the associated all round poverty of health giving factors, caste per se may be a determinant in child care especially in community situations, because of the discriminatory dictates in the society that, first of all, made caste system possible. In developed countries such differences are seen among ethnic groups, due to the social disadvantages sufferred by some expatriate groups.[6]

Causes of Mortality and Morbidity

On a global scale the UNICEF[7] states what it calls the "greatest condemnation of our time" is that more than quarter of a million small children should still be dying **every week** of easily preventable diseases and malnutrition. The preventable diseases in reference are measles, whooping cough and tetanus. These can be prevented by immunization, but almost 8000 children are said to die every day. Almost an equal number have been estimated to die of diarrhoea and dehydration which can be prevented at almost no cost. Another 6000 die daily of pneumonia which can be treated by low cost antibiotics. For every child who dies "several more live with malnutrition and ill health and are thereby unable to fulfill the mental and physical potential with which they are born".

These statements made for the world's children by the UNICEF were applicable and true to Sri Lankan children a few years back. In fact, Sri Lankan children like any other, also died of preventable tuberculosis, diphtheria and

poliomyelites in addition to measles, whooping cough and neonatal tetanus, already mentioned. But with the introduction of the Expanded Programme of Immunization (EPI) in 1978, on an already existing immunization service the incidence of poliomyelitis, diphtheria and neo-natal tetanus has shown marked decline (Table 4). Whooping cough has been said to show a 75% decline according to the Epidemiology Unit of the Ministry of Health and Womens Affairs. I have not presented the figures here, as whooping cough cases are notorious for being under reported. The same is true with measles. There has been a reduction in the incidence since the introduction of measles immunization in 1985. Reduction of tuberculosis is less marked. Sri Lanka has reached a state where over 80 percent of the infants are being immunized with all six antigens.

Table 4

Sri Lanka: Incidence of Poliomyelitis, Diphtheria and Neo-natal tetanus

Year	*Polio*		*Diphtheria*		*Neo-natal tetanus*	
	Cases	*Rate*	*Cases*	*Rate*	*Cases*	*Rate*
1955	102	1.1	1179	13.5	—	—
1965	382	3.5	1232	11.3	—	—
*1978	153	1.1	216	1.5	874	215.9
1985	11	0.1	7	0.0	56	14.6
1988	16	0.0	0	0.0	44	12.0

Rate: Based on 100,000 population, except neo-natal tetanus is calculated per 100,000 births.

* Year of introduction of Expanded Programme of Immunization (EPI).

Source: Epidemiology Unit, Ministry of Health and Womens Affairs.

Gastro-enteritis and lower respiratory tract infections

At present, half the children deaths are due to gastro enteritis and lower respiratory tract infection. The associated factor is malnutrition in these two diseases and the triad pose a challenge to child health. I wish to come back to our study of deaths in Kopay MOH area, where we visited 97 homes of infant deaths and 44 homes of deaths among 1-5 year olds and interviewed the parents. From the history and when available from hospital notes we were able to arrive at a reliable diagnosis of the causes of deaths. Table 5 is a summary that highlights the contribution of Lower Respiratory Tract Infection (LRTI) and gastroenteritis as causes of about half the deaths of infants and 60% of the pre-school deaths. It also shows figures from our study of 224 infant deaths that occured in the eight MOH areas in the Jaffna Peninsula during the latter half of 1990 which was a period of disruption due to aerial bombing, curfews and general chaos[8]. These 224 infant deaths were investigated by Family Health Workers by visiting the homes of these infants. They produced the signs and symptoms of the disease condition that caused the death and the diagnosis was made by us or taken from hospital notes when available. The likelihood of error in the diagnosis of LRTI and gastroenteretis is least when compared with other causes.

Table 5

Causes of deaths in infants and children 1 — 5 years (percentages)

Causes	*Infants*		*1-5 Year Old*
	Kopay	*Jaffna Peninsula*	
	1982-83 (n=97)	*June-Dec 1990 (n=224)*	*1982-83 (n=44)*
L.R.T.I	26.8	25.0	27.3
Gastroenteritis	20.6	23.7	36.4
Sub.total	47.4	48.7	63.7
Low Birthweight & Prematurity	15.5	15.2	—
Others	29.9	36.2	31.7
Unknown	7.2		4.6
All	100.0	100.1	100.0

Among the infants, the similarity of the percentages of LRTI and gastroenteritis in both studies (Kopay in 1982-83 and Jaffna Peninsula in 1990) is noteworthy. Again in both studies low birth weight and prematurity as a cause of death is 15%. Gastroenteritis as a cause of death among the 1-5 years old children is more than LRTI and together they are responsible for 64 percent of deaths. In these studies we found that half the children who died were also malnourished.

Morbidity data from routine reporting are less reliable. Special studies are necessary to give the true picture of ill health. In 1985-86 Sivarajah medically examined 266 children under 5 years of age living in the urban-underprivileged sector of the Jaffna Municipality. This was an age-stratified random sample taken from 2892 children in 3577 families. The weight of these children under 5 years was within normal range only in 14.3% of the children. Moderate or severe malnutrition was detected among 38.3%. Between first year of life and second the percentage of healthy children dropped from 34.1% to 9.8% indicating poor weaning habits or lack of food or both. In addition acute respiratory infections (ARTI), upper and lower, and diarrhoeas were also major causes to ill health. During a two week period 66% of the infants and 49% of the 1-5 year olds had ARTI. The percentages for diarrhoea are 22% for infants and 22% for 1-5 year olds.

Malnutrition

The story of malnutrition in a child actually starts in the womb of the mother, and is recognized when he is weighed naked at birth.

Birth Weight

Birth weight is an important determinant in child survival, especially during its early months. Low birth weight (LBW) defined as birth weight below 2500g is a challenge to child health in developing countries. In developed countries, for example in Sweden, the incidence of LBW is as low as 3.6%, whereas in some parts of India, Africa and Carribean Islands it is as high as 40%. Work by Priyani and Devika[9] showed that in the seventies, 22% of the Sri Lankan babies weighed less than 2500g at birth. Study of birth weight of babies born in the G.H. Jaffna showed that in 1989 the percentage of LBW babies was 19, and in 1991 it was 23. Unless we recognize the hazards imposed on the pregnant mothers in the present situation, the percentage of LBW babies would continue to rise in the troubled areas.

Breast Feeding

After the birth of the child, malnutrition continues in the mother's arms if the society's concept of breast feeding is ultra fashionable, and bottle takes the place of the breast. This scenerio has been lucidly told by a young poet Amuthamozhian[10], one of our medical students.

பால் சுமக்கின்ற
தாயின் மார்பில்
சாய்ந்தபடி
குழந்தையொன்று
புட்டிப் பால்
குடிக்கின்றது

In a community study on infant feeding patterns in 12 districts of Sri Lanka, Dulitha Fernando and Kamal Abeywickrama (Quoted by Priyani[9]), found that although 99% of the women initiated breast feeding, by the end of the first month only 87% of the rural infants and 64% of the urban and town infants were solely on breast milk, indicating early introduction of other milks in infant diet. The percentage of infants on exclusively breast milk by end of the third month was in the rural areas 60%, urban area 47% and town area 41%.

Priyani comments that all indications are that the trend to decline in breast feeding is likely to continue, particularly if there is rapid urbanization and economic development.

We feel that the duration of breast feeding may be dependent on the nutrition of the mother. Our experience is that the mothers in our clinics say that breast feeding was stopped or artificial milk was started because of insufficient milk to feed.

More studies are indicated to identify all variables associated with the problem of breast feeding as it is a protective factor in child health.

A seven day period prevalence, in the study quoted above showed that 25% of the non-breast fed children had diarrhoea, while it was only 13%

among the breast fed. Weight charts also showed the breast-fed infants grow up well up to about 4 months but fell short of NCHS standards in late infancy, probably related to inadequate complementary feeding. This leads us to another stage in infant malnutrition-weaning.

Weaning and Pre-School stages

If the child is spared of malnutrition when on breast milk, it has a great chance of getting it at six months. As pointed out by Priyani[9] this early trend can be eliminated by better infant feeding practices. It is at this time acute respiratory infections and diarrhoeas supervene on malnutrition and the trio play havoc on the child's health. Malnutrition continues throughout the pre-school age. (Table 6).

Table 6
Prevalence of malnutrition in Sri Lanka

Age (months)	*Acute*	*Chronic*
6-11	5.0	11.8
12-23	10.8	24.8
24-35	6.9	33.1
36-47	4.8	40.8
48-59	5.0	41.9
60-71	6.2	46.2
Sri Lanka (average)	6.6	34.7

(From Priyani[9])

In Sri Lanka the percentage of acute malnutrition among 1-4 year olds was 6.6 in 1977 and in Jaffna during the same year it was only 3.7, showing that the nutrition of the Jaffna child was better than the average Sri Lankan child. A recent study by the SCF in Ketpali[11], Chavakachcheri shows that acute malnutrition in a refugee camp was 6.8% as shown by weight for height measurements.

Figures for chronic malnutrition (weight for age) in the 1-4 year olds are as follows. In 1977 the percentage of children suffering from 2nd and 3rd degree protein-energy malnutrition in Sri Lanka was 42.0 while it was 32.5 in Jaffna. The Ketpali study of the SCF quoted earlier shows that in 1992, 67.7% suffer from chronic malnutrition. A study by Theivendram[12] in 12 refugee camps in the Jaffna Municipality showed that 73.0% were malnourished. Thus chronic malnutrition is a community health problem, and is interrelated with our customs, beliefs and practices of not only weaning in infancy but also feeding in childhood when child is well or ill.

Beliefs and Customs

The cultural milieu of the people with its traditions, religious practices superstitions etc has a strong say in matters pertaining to health, especially

that of the child. At present child care finds its strongest challenges in the social rather than in the medico-scientific field. However epidemiology, the science of Community Medicine has signally omitted any serious study of the behaviour, beliefs and motives in relation to health and disease. Such studies have been undertaken by some health workers and social arthropologists but the potential for such work has not been incorporated in the health system. Further it is well known that the thinking of traditional medicine permeates into every aspect of health care by the people of all strata, not necessarily the poor, and this cannot be ignored. In fact beliefs and practices relating to disease which are products of indigenous cultural development and not explicitly derived from the conceptual framework of Modern Medicine has been described as a discipline and given a name, ethno medicine. This discipline also deals with the beliefs related to angry deities that punish wrong doers, ancestors and other ghosts who feel that they have been too soon forgotten and people who live with us but have an "evil eye". Some of these beliefs and customs are good to health care, some are harmful, many make no difference to health. Some times we do not know whether the custom is helpful or harmful, but it may act as a useful placebo.

Our study

I now place before you some of the findings of a study on the beliefs and customs related to child health among our people. This study[13] was done by us in 1983, and it covered 7 MOH areas in the Jaffna Health Division, including Kilinochchi. During a three months period 97 Family Health Workers noted down what the mothers in their area said during their conversation when they visited homes, and the practices actually observed by them. All the F.H.Ws were trained by us on the objectives and method of the study. They were given instructions and files to note down their findings under several headings. No questionnaires or pre-designed record forms were given. The study included customs, beliefs and practices in health pertaining to several situations, but only those pertaining to child care and that too those in our opinion are bad for the child are given here.

Tables 7 & 8 show those practices harmful to the child. The numbers given are the number among the 97 FHWs who reported these beliefs and practices in their area. In spite of our health education regards breast feeding, about 25% of the FHWs reported that the mothers do not give colostrum to the infants and 11% said that breast milk is started only after the third day. Although water is good to the child, palmyra jaggary is harmful to a neonate and in 40% of the FHW areas this practice was reported. Cows milk and egg yolk are also not given in about 40% of the FHW areas and reasons given are that they cause "Mandam", "Vayu" and indigestion in infants. Similarly food taboo includes fruits to the infants, as they may cause diarrhoea or are too "cold" for the child.

Table 7

Harmful practices in infant care recorded by FHW (n = 97 FHW)

INFANT FEEDING

i	Colostrum not given to infant	25
ii	Breast milk given after 3 days	11
iii	Water & Palmyrrha Jaggary given 1st 3 days	40
iv	Cows milk not given	36
v	Eggs yolk not given	40
vi	Only egg white given after 8 months	11
vii	Fruits cause diarrhora	16
viii	Rice given after 1 year	06

Other

i	Umbilical stump dressed with roasted pepper, ash of garlic or Tobacco	03
ii	Make a mark on gum for teething	51
iii	Drawing a picture of a lion for 'AKKI' (Staphylococcus Impetigo)	28

Table 8

Harmful practices recorded by FHW (n = 97 FHW)

During Diarrhoea

Stop breast feeding	03
Do not give king coconut water	07
Reduce water and liquids	62
Fruits not given	16

For Constipation

Use of following suppository	06
Wick soaked in castor oil	
Tobacco stalk	24
Piece of soap	30
Give purgative	25
Give 'Kallakaram'	08

During Convulsions

Give ayurvedic medicine	06
Give salt water orally	17

Although only 3 FHW reported treatment of the umbilical stump with such obnoxious substances, this was not expected at the present time. Similarly mini surgery for appearance of the teeth, and "lion drawing" for "akki" which is staphyloccal impetigo still exist in our homes.

Table 8 shows the harmful practices when the child has diarrhoea, constipation or convulsions. The practice of refusing to give sufficient liquids to drink during diarrhoea, which is reported by 62 of the 97 FHWs worthy of note. The fact that in 23 FHW areas, the habit of giving salt water or ayurvedic

medicine orally during convulsions, is very disturbing. This habit could kill a child who is semi-conscious during the fits.

Recently Aponso [14] has quoted similar child feeding practices among 1000 families in the Mahaveli area. In this study the percentages of families that did not believe that certain food should be given to an infant after 6 months are as follows:

Pulses	32.5%
Green leaves	40.5%
Dry fish	49.5%
Egg	28.5%
Rice canjee	9.0%
Fruits	4.5%

The beliefs and customs of the people, especially the food taboos are influenced heavily by the tenets of traditional medicine — Ayurveda and Siddha. Ayurveda lays great emphasis on regulation of diet as part of the treatment — the concept of "Pathyam". In child care, especially during childhood diarrhoea, some of these concepts can be harmful. Further Ayurveda, religious customs and astrology are inter-related. These could in addition delay or complicate treatment. Planned studies are necessary to identify the part played by Ayurvedic medicine in these situations.

Ganlath Obeysekara[15] gives the five most common diseases identified by Final Year students (n =54) in College of Ayurveda as diseases that could most effectively be treated by ayurvedic medicine. They include groups of diseases

i. Rheumatism and arthritis
ii. Rashes, skin diseases and eczema
iii. Paralysis of limbs etc
iv. Neuralgia, neuritis, swelling and cracking below knee, varicose veins
v. Haemorrhoids

It is important to note that except rashes, skin diseases and eczema, none of the other diseases are childhood diseases. In his study, analysis of cases admitted to ayurvedic hospital, Colombo, also showed the same pattern or diseases as identified by students. In short according to Ganlath Obeysekara, Ayurvedic Medicine was dealing with the chronic diseases and those described by him as "cultural diseases".

However in a study[16] done by us at Peradeniya on 201 Registered Ayurvedic Physicians in the Kandy District, at almost the same time as Ganlath Obeysekara's study, we found that about 45% of the Ayurvedic School Physicians' and 37% of the Traditional physicians' practices were composed of children under 5 years. Ganlath's study was hospital based, while ours was based on private practices. Based on our 201 physician study our conservative estimate was that the 11,000 Registered Ayurvedic Physicians in the island in 1978 were seeing about 30,000 children under 5 years of

age, daily. These were a formidable child cum parent contacts with the physicians which could be profitable entry points for Community Health Education.

We suggested that physicians trained by the Ayurvedic School could be used at the preventive health clinics and that in setting up a liason with Western practitioners they should be given priority over layman health volunteers.

These findings and statements were made for practitioners of Ayurveda. It is not possible to say to what extent they are applicable to Siddha Medicine as practised in the Tamil areas. Studies of this nature are recommended to bring to light the various practices among practitioners of Siddha Medicine, both traditional as well as those trained in the Siddha Medical School, especially in the field of child care. Whether Siddha Paediatrics is complementary to modern paediatrics or poses a challenge to safe child care, these studies could reveal.

The concept that medical students in the Faculties of Medicine should be acquainted with the beliefs and customs of the people regarding health was put forward by two pioneers in Community Paediatrics in Sri Lanka — Prof C.C.de Silva, Professor of Paediatrics and Prof O.E.R. Abhayaratna, Professor of Public Health. At first they introduced home visiting by medical students, and later made provisions in the curriculum of either Paediatrics or Preventive and Social Medicine for Family Attachments. At present all four Faculties of Medicine and the North Colombo Medical College have field practice areas for this purpose.

Our field practice area is the Kokuvil-Kondavil Community Health project with a population of 32,500 people. Students in groups of three are attached to a family consisting of an infant, child or pregnant mother for a period of one year and they submit a report which is evaluated for final assessment. From 1981, eight batches of students have been attached to 147 families. The average number of visits made by the students to their families is 25. The beliefs and customs observed by the students are similar to those recorded by the FHWs in our earlier study, as regards food taboos to children.

Socio-Political Challenge

The political climate of a country is an important determining factor in the maintenance of health of the more vulnerable groups like the children. It affects the development of the child in all aspects — body, brain and behaviour. In short it moulds his or her future. Hostile political environment has been the cradle of children in many countries; South Africa, Northern Ireland, Israel, Palastine, Lebanon, Nicaragua, Argentina are a few examples. The children belonging to the Northern and Eastern regions of Sri Lanka joined these unfortunate victims, since 1958 when they saw their parents or close kith and kin killed in their presence in different places in Sri Lanka. They lived in refugee camps and formed refugee cargo to safe places.

The challenge to the body, mind and soul of these children was severe

and the consequences have made history.

In a joint publication by the Government of Sri Lanka and UNICEF[17] under the title "Children and Women in Sri Lanka" it is stated that:

> "the armed conflicts since 1983 represent the single most debilitating and pervasive factor affecting lives of children and women in Sri Lanka "(p 93),
>
> "Out of a total population of 2,577,113 (est. fig. for 1991) in the districts of Jaffna, Mannar, Vavuniya, Trincomalee, Kilinochchi, Ampara and Batticaloa, the 1,180,966 displaced represents 45.8 percent of the population in North and East. In October 1990, during a period of one week, approximately 75,000 people were evicted from the district of Mannar, who fled in over-crowded open boats across rough seas, during inter monsoonal rains in October, relate harrowing tales of children falling overboard and drowning" (p 94-95).

This report also states that "although no comprehensive data are available, all evidence points to a deterioration in nutritional status of children in conflict areas. Marasmus has been reported by NGOs working in both Mannar and Batticoloa districts". (p 96)

As regards deaths in infants, in a study quoted earlier ie. deaths during the later half of 1990[8] in 119 of the 224 infant deaths ie. 53.1% of the deaths there was delay in taking treatment. In Kayts MOH division 75% of the cases had delayed or no treatment. The delays were due to a combination of several factors, lack of transport, curfews, aerial attacks and non-functioning of the closest hospital. Lack of transport was the main factor. Disruption of Health care was therefore a major determinent of the fate of these infants. This is only a sample of a wide picture of misery.

As regards mental health of children Kerry Gibson[18] has reviewed selected international literature which are useful to researchers in our situation. One of these is Fraser's study[19]. Fraser writing on the on going "troubles" of Northern Ireland emphasises the differences between the "troubles" and that of conventional warfare. He notes the personal involvement of civilians, where children are not simply exposed to these dangers, but are also frequently combatants of violent activity and the politics that surround them. He also notes the immediate context of a divided community where the enemy and enemy territory are poorly defined in violent political conflict. Illustration of this is taken from South Africa where schools, neighbourhood streets and homes frequently become battlegrounds. In fact this is applicable to our situation during the Vadamarachchi onslaught by the Sri Lankan army in 1986 and the IPKF massacre of Jaffna in 1987, where hospital was also a battleground. The political violence described by Fraser and other northern Ireland researchers are distinguished by the fact that it is a chronic strife and occurs in a situation marked by social and political oppression and social and economic deprivation. It is clear that the scene fits into our plight in the Northern and Eastern Sri Lanka.

The childrens' reactions to the events in this situation are acute as well as chronic in nature. The acute reaction represents a normal shock reaction. The chronic reaction lasts a longer and persists after, with debilitating symptoms (Jenis, I.L cited by Kerry Gibson).

Fraser notes that scarcely any child in the troubled area escaped at least some symptoms of acute anxiety. He also cites Fields who has suggested that children growing up in a violent society suffer a form of moral and social retardation.

Somasundaram[20] writing on the "Scarred Mind" has also reviewed several studies which are applicable to our situation. He points out that apart from traumatic events, it is the lack of emotional support, separation from parents or family disruption and the communicated anxiety, grief and distress of parents and adults that are sources of psychological impact on the child.

We have not still quantified the effect of these on our children. Even if we do, it would take several years to follow these unfortunate cohorts with "painful childhood memories and psycho social handicap". Assessing these handicaps of childhood and taking preventive steps to avoid a 'Scarred Nation' of the future is again a challenge to child care now.

Ladies and gentlemen, I have attempted to place before you some of my thoughts on the challenges to child care. I have touched on the inadequate and inaccurate data that disturb planning for care, socio-economic handicaps that perpetuate preventable ill health and death, traditional beliefs and customs that may endanger life and the present political situation, that is war.

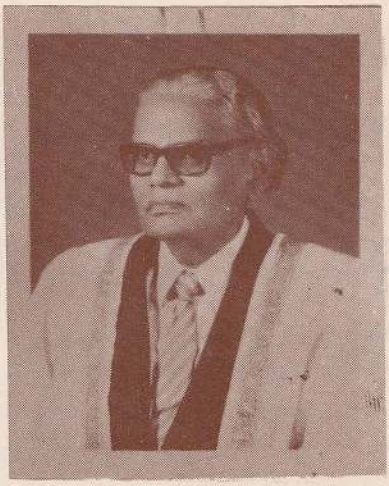
Challenges must be responded to with wisdom, sagacity and courage if we are to survive and in our context love for one's people. For this, we need people of the calibre of late Dr. Sivapathasundaram. He is a person to be emulated by the youth of this country. He died when he went to work, knowing that the hospital was no longer a sanctuary but a battle field. For him as the Bible says:

> "a good name is better than precious ointment,
> and the day of death than the day of one's birth"[21]

Thank you.

REFERENCES

1. Shakespeare, W. As you like it, 2, 7, 139.
2. பாண்டியன் அறிவுடை நம்பி, புறநானூறு (படைப்புப் பல படைத்து).
3. Ponnambalam, S. Dr. Arunachalam Sivapathasundaram, an appreciation; *Jaffna Medical Journal.* **XXII,** No. 123, 61-62 (1987).
4. Ministry of Health, Annual Health Bulletin, Sri Lanka, 1989.
5. Sivagnanasundram, C., Sivarajah, N. and Wijeratnam, A. Infant deaths in a health unit area in Northern Sri Lanka. *Journal of Tropical Medicine and Hygiene,* **88,** 401. 1985.
6. Douglas, R.N. Gilles et al. Analysis of ethnic influence on stillbirth and infant mortality in Bredford 1975-81. *J. Epidemial Community Health;* **38,** 214-217. (1984).
7. UNICEF. The state of world's children. Oxford University press.
8. Sivagnanasundram, C., Sivarajah, N., Nachinarkinian, C.S. and Sivarajah, M. (Unpublished Data).
9. Soysa Priyani, E. and Jayasuriya Devika, S. Birth weight in Ceylonese, Human Biology, 47, 1-15, 1975.
10. Amuthamolizhan, 'MOTTUKAL ALLA VITHTHUKAL' (Tamil poetry collection) MANI OSAI, p 36, 1992.
11. Rebeca, M. Personal Communication, 1992.
12. Theivendran, R. Personal Communication, 1992.
13. Sivagnanasundram, C. and Ponnambalam, G. (Unpublished data).
14. Aponso, H. Looking Beyond the Disease Palace. (C.C. de silva Oration). *Ceylon Journal of Child Health.* **19,** 10-26, 1990.
15. Ganlath Obeysekara. The impact of Ayurvedic on the culture and individual in Sri Lanka. In: Asian Medical System. Ed: Charles Leslie. University of Califomia Press. Berkley. p 201-226, 1976.
16. Sivagnanasundram, C., Nugegoda, D.B. Study of Registered Ayurvedic Parctitioners in five MOH divisions in the Kandy district. *Ceylon Medical Journal,* 1979, **29,** 21-28.
17. Government of Sri Lanka — UNICEF. Children and Women in Sri Lanka 1991.
18. Kerry GIBSON. Children in political violence. *Soc. Sci. Med.* **28,** 659, 1989.
19. Fraser. Children in conflict. Penguin. Harmondsworth. 1974. (cited by Kerry Gibson).
20. Somasundaram, D.J. 'Scarred Mind' — in print.
21. Ecclesiastes. 7, 1.



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He has also attended several International Seminars and workshops organised by the Association of Commonwealth Universities and participated in a Symposium on Demographic Training, organised by the London School Of Economics.

He has to his credit several publications in local and international journals. In the Tamil literary world Prof. Sivagnanasundram is known as 'Nandhi' and is the author of three novels and two collections of short stories. In 1965 and 1989 he was awarded the Sahitya Award by the Ministry of Cultural Affairs, Sri Lanka for the best novel.

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