Health Transition Review 5, 1995, 191 - 206

Fathers' perception of child health: a case study in a squatter settlement of Karachi, Pakistan*

Albrecht Jahn[a] and Asif Aslam[b]

[a]*University of Heidelberg, Institute of Tropical Medicine and Public Health*

[b]*UNICEF Pakistan, Karachi, formerly Aga Khan University, Karachi*

Abstract

This study looks at child health from a father's perspective. While the close relationship between children and mothers has been acknowledged, and brought about the concept of Mother and Child Health (MCH), little attention has been paid to the role of fathering.

In Pakistan, where the study was undertaken, a high infant and under-five mortality coincides with a low acceptance of MCH services and a tradition of female seclusion, , which severely limits women's movements in public. *Purdah* is often cited as an important cause for the low MCH-coverage, indicating an inappropriate design of established MCH-services with its exclusive focus on mothers, and prompting the questions taken up in this study: what is the role of fathers in child health, how do they define child health needs and how do they participate in child care?

The study was undertaken in the squatter settlement Orangi in Karachi where the Aga Khan University is involved in a PHC program. A set of qualitative methods was used including key informant interviews, focus group interviews with fathers, group interviews with women and community health workers with a total of 61 informants, and observation of father-child interaction.

Apart from their basic role as breadwinners, most fathers participate directly in child care. As far as working hours allow, fathers spend time with their children by taking them out or playing with them. Among 174 cases of child holding in roads and places, 75 per cent were carried by the father; this was true for the majority of children even in the mother's presence. One-third of children brought to general practitioners were accompanied by the father. Fathers help their wives in child care in activities like feeding, soothing, bathing and giving medicine; a considerable minority even changes nappies.

In the socio-cultural context, the high level of male involvement especially in caretaking outside the house can be seen as a coping mechanism with the tradition of female seclusion. The qualities of fathers as key decision-makers and second line caretakers and

*This study was a joint collaboration between the University of Heidelberg and the Aga Khan University, Karachi, and formed part of a thesis for an M.Sc. Course in Community Health and Health Management at the University of Heidelberg. The authors are much indebted to Prof. J. Bryant, former head of the Department of Community Health Sciences of AKU, for his encouraging support and advice. We gratefully acknowledge the help of Ms. N. Khatoon in moderating the focus groups, of Mr. Mastullah for interpreting and organizational support and of Ms. T. Jamal and the other members of the Orangi PHC-team. We also want to thank our informants in Orangi for their friendly collaboration.We are particularly thankful to Prof. S. Rifkin, who as the thesis tutor supported this study throughout with valuable advice and interest and critically reviewed the manuscripts.

mothers' role as primary caretakers call for a two-pronged approach to child health, addressing and involving both parents.

Up to now child health problems have been addressed almost exclusively in the context of Mother and Child Health (MCH) programs. There are valid reasons for regarding mothers and their status as crucial for their children's future: mothers' education and their autonomy in decision-making have been repeatedly found to be strong determinants of child health (Caldwell 1986; Doan and Bisharat 1990). However, little attention has been paid to the role of fathering.

Regarding non-Western Societies Hewlett (1991) concluded:

> The researchers do not know much about the father's role and simply claim that it is minimal. These factors have contributed to the complete absence of systematic studies in non-Western societies of the father's role in infant and child development.

Although fathers' contribution to child health has been acknowledged (Williams, Baumslag and Jelliffe 1985: 154, 181, 271; Reitmeier 1989), only minimal attention has been given to fathers' perception of child health needs, and fathers have not been addressed in the context of child health programs.

In an attempt to counterbalance this deficiency, the study focuses on fathers as contributors to child health with special emphasis on fathers' concept of child health needs and fathers' participation in child care. Considering the lack of previous research to build on, the primary intention was to gather baseline information and to prepare the ground for more specific research.

The study context

According to the United Nations Development Programme, Pakistan belongs to the low-income group of developing countries with a third of its 112 million inhabitants living below the poverty line. The South Asian country has a population growth of 3 per cent per year (UNDP 1991); basic health indicators for 1991 show high infant and under-five mortality rates of 97 and 139 per 1000 live births (World Bank 1993). This has coincided with low coverages in Mother and Child Health. In 1982 coverage for antenatal care was 26 per cent, for vaccination 5 per cent and growth monitoring 3 per cent (Mahmud 1986). Despite considerable efforts to expand MCH services in the course of the Accelerated Health Programme, launched in 1983, vaccination coverage could be increased till 1991 to 35 per cent only and coverage of antenatal care remained unchanged with 26 per cent (National Institute of Population Studies 1992). Polio, reduced to almost zero in most developing countries and targeted for eradication by WHO, is on the increase with 1803 registered cases in 1993 (WHO 1995).

A mismatch of the established way of service delivery with the tradition of female seclusion, *Purdah*, with its restrictions on women's appearance and movement in public, was repeatedly identified as an important reason (World Bank 1989; Aga Khan University 1990). *Purdah* consists of a set of rules ensuring the segregation of sexes outside well defined categories like extended family and next kinship. This is achieved either by seclusion of women at home or by the use of the *burqa*, a concealing veil. Related to *Purdah*, South Asian Muslims follow a system of arranged marriages, usually among cousins (Papanek 1982).

The study was conducted in Karachi in the squatter settlement Orangi, where there has been a Primary Health Care Programme of the Aga Khan University (AKU) since 1986.

The study area

Situated in Karachi's District West, Orangi has an estimated population of one million and is reported to be the largest squatter settlement in South Asia. Fifty per cent of its population are below 15 years old. Ninety per cent of the population are Mohajirs, Muslim immigrants from India and the former East Pakistan, now Bangladesh; the remaining 10 per cent are migrants from other parts of Pakistan: Punjabis, Balochis and Pathans. The pattern of cousin marriage is found in about half of couples. The literacy rates are 62 per cent in males and 41 per cent in females, which is above the national average of 57 per cent in males and 32 per cent in females but below the national average for urban areas with 73 per cent and 57 per cent respectively (National Institute of Population Studies 1992). The average monthly family income in 1991 was 2300 rupees, equivalent to 92 US dollars.

Occupations among Orangi residents include skilled office workers, permanently employed factory workers in a steel mill and garment factories, small-scale home-based industries, artisans, street vendors and a large group of day labourers. Ninety per cent of the houses have piped water, and almost all have electricity; however, the supply of both is frequently interrupted. Drug addiction has emerged as a major social problem in recent years. A countrywide survey in 1988 revealed over a million heroin addicts, roughly one per cent of the population (Government of Pakistan 1993), the estimate for urban squatter areas being at least twice as high.

The Primary Health Care field site of Aga Khan University in Orangi covers a defined geographical area with 9517 registered inhabitants in 1506 households (93% of all households in the area), including 1383 children under five years. In 1991 the infant mortality rate was 77 per thousand live births and the prevalence of malnutrition according to the Gomez Classification was 36 per cent for first, 6 per cent for second and 1 per cent for third degree malnutrition. The most common diseases were diarrhoea, cough and feverish illnesses including malaria; the leading causes of death in under-fives were diarrhoea, respiratory tract infections, malnutrition, low birth weight and fever. Polio accounted for 30 per cent of childhood disability, followed by meningitis and perinatal problems with 15 per cent each.

Within the field site the main MCH interventions are performed by a team of female community health workers (CHW) through monthly household visits, and include growth monitoring, vaccination, antenatal care and health education. This service is backed by a Primary Health Care centre which offers also curative care. Outside the field site, MCH service delivery follows the usual centre-based approach with dispensaries, hospitals and private clinics as the main outlets. According to survey findings and field site reports of Aga Khan University, the household-based approach has resulted in an increased coverage of MCH interventions. Complete vaccination coverage was 80 per cent within the field site against 41 per cent in other areas of Orangi and 46 per cent in urban areas on a national level (National Institute of Population Studies 1992).

Methodology

A qualitative study design was chosen, consisting of a set of complementary qualitative methods and including key informants, focus group interviews and observation. Among the reasons for this design was the lack of baseline information from which hypotheses could have been formed and quantitatively tested. Following the concept of triangulation (Walker 1985), data obtained by the different qualitative methods were cross-checked with each other and compared with previous research and related documents.

Information was obtained from 61 respondents: 16 key informants, 21 fathers in focus groups, 11 mothers in lane meetings and 13 female community health workers in a feed-back

discussion on preliminary findings. Further sources were observations on father-child interactions and a document review.

Key informants

Following the recommendations by Annett and Rifkin (1988) for the selection of key informants, the following persons were interviewed: a representative of the Orangi Pilot Project, a large non-government community development organization which was particularly successful in mobilizing Orangi residents to built an underground sewerage system on their own; a former field director of the Orangi site, who, as a medical doctor, was in charge of the Orangi PHC team for a considerable time; a retired teacher and community leader; a shopkeeper; two community health workers; two general practitioners working in Orangi; a traditional midwife; a herbalist; three fathers with children under five years; three mothers with children under five years, unrelated to the interviewed fathers. The selection of individuals was purposive. The aim was to include accepted representatives of the groups of professionals and to include different sections of the target groups in the case of fathers and mothers with respect to age and socio-economic status. Advice on selection was given by the community health workers associated with the PHC program of Aga Khan University, by a retired teacher and resident of Orangi who acted as Urdu-English interpreter, and by previously interviewed informants. The interviews were semi-structured; a list of open-ended questions, which had been pre-tested on routine household visits, was used as interview guide. The general version of the interview guide was modified for fathers and for mothers, emphasizing their personal experience. A protocol was prepared for each interview, including age, sex, occupation, number and age of children, special personal or professional relation to the topic and observations during the interview. Notes were taken during the interview and completed immediately afterwards. Interviews in Urdu were conducted by the researchers with the help of the interpreter who was also involved in the review of the notes after the interview.

Focus group interviews with fathers

Three focus group interviews were conducted in Orangi, two within the AKU field site and a third in Orangi-Mominabad, an adjacent area with a similar socio-economic profile but not yet covered by the PHC program. Selection criteria were (1) being a father of an under-five child, (2) being a resident of Orangi (3) being no close relation to another participant, as recommended by Krueger (1988: 27-48). The interview guide for focus group interviews was based on the previous experience with key informants.

Contacts with potential focus group participants were arranged through the interpreter, members of the Orangi PHC team and previous key informants. The focus groups were conducted either in the house of the interpreter or in a class room of a secondary school.

Participation ranged between six and eight fathers per focus group; nine of the 21 participants were illiterate, ten had primary and two had secondary education. Occupations included day-labourers, artisans, street vendors, steel mill workers, tailors, office assistants, a shopkeeper, a police constable and an employee of the water department. Eighteen participants belonged to the ethnic group of Mohajirs and one each to Balochis, Pathans and Punjabis, thus reflecting roughly the composition of the population in Orangi.

The focus group interviews were conducted in Urdu and moderated by a sociologist working at AKU. The interpreter and an observer took notes. The participants were asked for

their consent for tape-recording of the discussion; a recording walkman (Sony WM-R55) was used for this purpose. The recorded focus group interviews were translated and transcribed independently by two translators; in the case of conflicting translations, the moderator listened to the tapes again and confirmed the correct translation. These translated transcripts were analysed according to (1) number of similar statements in all focus groups, (2) number of similar statements in each focus group separately, (3) time spent on the specific topics, (4) whether the issue under discussion was controversial or concurrent and (5) emotional involvement of participants according to the observation protocol.

Group interviews in lane meetings with mothers

As part of the Primary Health Care program, community health workers and other members of the team conduct so-called lane meetings, regular group discussions on health issues held in private houses. Two group interviews in lane meetings were conducted, lasting 20 and 30 minutes; the first meeting was attended by six mothers between 20 and 35 years, the second by five mothers between 25 and 35 years. The interview guide concentrated on fathers' participation in child care and family decision-making on child health issues. Notes were taken during the interview and reviewed afterwards. As male involvement would have been insensitive in the socio-cultural environment, the female moderator took notes during the interview. These were completed and reviewed immediately after the interview.

Group discussion with community health workers on preliminary findings

The 13 community health workers are all Orangi residents and each cares for an area of 100 to 130 households which they visit at least once a month; these visits provide them with a unique insight in a wide range of families. They are all literate; their work indicates that they themselves do not strictly follow *purdah* and it provides them with their own income. Thus they represent a rather self-conscious and father-critical subgroup of Orangi women.

Feedback and discussion of preliminary results with information providers has been recommended as a means to enhance validity in qualitative research (Southern Community Health Research Unit 1991). A summary of preliminary findings was translated into Urdu and given to all the health workers, who were asked to comment on these individually in writing; subsequently, the preliminary findings were reviewed in a group discussion with them all. All comments were noted and included in the final analysis; results are specifically mentioned in areas where they provide additional information or modify information from other sources.

Observation

Father-child interaction and fathers' child-care-related activities were the focus of semi-structured observations. Observation sites were streets, places and bazaars of Orangi; houses visited for interviews; premises of private doctors; and the PHC centre of AKU. Four afternoons and evenings from 4 pm to 8 pm were spent in Orangi to observe fathers taking out their children, carrying them and entertaining them. The occasion of conducting interviews in homes with fathers or in their presence was used for observations in the households. Observations in the premises of two private doctors focused on the accompanying caregiver of sick children. The PHC centre was checked for male visitors and their reasons for the visit.

Results

For the sake of clarity and to avoid repetitions, the findings are presented as follows: definition of the fathers' role in child rearing; fathers' concept of child health needs; and fathers' participation in child care and related decision making.

Fathers' role in child rearing

'We are the backbone of the family' was the answer of a 52-year-old father of nine children. Fathers define their role in the first place as breadwinner and resource provider for the family's basic needs with emphasis on nutrition, housing, medical care and education.

Fathers are in particular responsible for the psychological and mental state of their children and the harmony within the family. A reason mentioned frequently for the father's key role in this respect is that he has to mediate and balance the relationship between mother-in-law and wife.

Fathers feel emotionally close to their children and the stated aim of many of their activities is 'making the children happy'. Child care is considered to be primarily the mother's task, particularly with small children, but fathers also take part in it: 'the mother plays the primary role in child development but father's role cannot be ignored'.

Fathers stated repeatedly that the health of their children is a major concern to them: 'Sometimes, when our children suffer from any health problem, we feel that we suffer from the same disease'. Emotional attachment to daughters and to sons was reported to be similar in general; some said there may be slightly more attachment to a daughter as she is the one 'to be lost' to another household after marriage.

Important paternal tasks beyond breadwinning include setting a good example and teaching: 'A child learns many activities by imitation. So a father should set a good and healthy example or model for his child'. 'A father is responsible for his child's manners and habits'. Fathers have to introduce the children to the religious life like regular praying at the age of four. They should create a good emotional and mental environment by giving love, affection and attention to their children.

Mothers and health workers confirmed this task allocation. In addition mothers expect their husbands to express concern by asking after work about the children's condition, and they appreciate this sign of concern. They emphasized that earning the family's livelihood is already in itself a big job and a contribution to the children's future.

Fathers' concept of child health needs

In the context of child health needs the major concerns in all focus groups were physical environment: cleanliness, water, sanitation; food and nutrition; poverty; diseases; and social and emotional environment. Key informants revealed similar priorities as shown in Table 1. Separate sections will later expand on these areas of concern.

Table 1
Determinants of good and of poor health for children as mentioned by the 16 key informants

Determinants of good health	**Number of mentions**
Good food	11
Cleanliness, good sanitary conditions.	9
Job, earnings, money	6
Education.	5
Parents' loving care, harmony in family	5
Affordable and accessible health care	3
Regular, scheduled daily activities	3

Table 2 continued next page

Table 1 continued
Determinants of good and of poor health for children as mentioned by the 16 key informants

Determinants of poor health	**Number of mentions**
Uncleanness, impurity, filth	11
Bad, impure food	8
Poverty	6
Diseases	6
High doctors' fees	4
Coldness of environment and food in small children (humoral concept)	4
Evil eye and evil spell (locally *nazar*, *jadu*, *saya*; traditional concepts)	3

Physical environment

'We have dirty and filthy surroundings, which cause diseases, you know, dirt itself is a disease'. 'This filth and dirt has ruined our lives'. 'I think cleanliness is the main problem'.

These statements from each of the three focus groups illustrate the unanimously expressed concern about the physical environment. Bad drainage and filthy stagnant water lead to mosquitoes and malaria, diarrhoea, typhoid and skin diseases and 'cause germs everywhere'. Water supply is not clean: 'even after boiling there is a lot of mud'. Dirty air is mentioned as a cause of cough.

All focus groups reported activities to improve the environment by organizing self-help initiatives for garbage disposal and improving the sewerage system as well as appealing to the local authorities to improve sanitation. The Orangi Pilot Project has played a key role in initiating and organizing these activities.

Food and nutrition

'It is very true, if cleanliness and proper diet are available, the whole family would enjoy good health'. 'It is due to impurities of diet that children suffer from diseases'.

As seen in these quotations, it is the concept of cleanliness and purity rather than the idea of a mixed and balanced diet in a scientific sense, which makes food such a big issue. Adulterated food, impure food, rotten meat and vegetables and locally made sweets and toffees which are sold in the streets are mentioned as examples of bad food. As pointed out by a focus group participant, milk packaged neatly at the dairy may be regarded as cleaner and

therefore superior to the milk sold locally from big containers. Milk is considered to be an essential constituent of children's diet. Regular feeding according to a fixed schedule is recommended by all focus groups. Total lack of food or starvation was not mentioned as the main problem, rather the prohibitive prices or the unavailability of good food.

Poverty

'A poor man can only think and say something, but due to his financial problems can't act according to his wishes'. 'Poverty is our main problem, a poor man can't afford rich food and an ideal environment'. 'Poverty is a curse!'

Similar comments were made in all focus groups. Poverty is seen to be related to most child health problems: poor environment, poor nutrition and family life and health care problems. High doctors' fees and hospital charges are a common concern. They cause sometimes prolonged trials of self-treatment and hospitals seem to be reluctant to treat poor patients as we were told in the second focus group in Orangi:

> When we take them to A... Hospital, they refer our kids to C...Hospital or J...Hospital and when we reach there, they refer our children to A...Hospital again. In this [confusion] our children sometimes lose their lives, too. So you see, this situation makes us depressed and helpless.

The lack of support from local authorities and government institutions is also perceived to be related to poverty.

Diseases

Diseases, perceived as a threat to child health, are presented in Table 2.

Table 2
Diseases perceived as dangerous for children by key informants and focus groups

Diseases	Number of mentions by key informants
Diarrhoea	13[c]
Pneumonia	10[c]
Fever	9[c]
Polio	6[b]
Typhoid	5[c]
Measles	5[b]
Smallpox (locally *chechak*)	5[b]
Malaria	4[b]
Accidents, injuries	4[a]
Tuberculosis	3[b]
Whooping cough	3[a]
Common cold	2[b]
Vomiting	2[b]
Marasmus (locally *sukha*)	2[a]

Note: emphasis given by focus groups: [a] concern; [b] great concern; [c] extraordinary concern

Diarrhoea, particularly when accompanied by vomiting, is unanimously regarded as most dangerous, followed by pneumonia and fever. These priorities match well with AKU data on morbidity and mortality in Orangi. The importance of the modern health sector is evidenced by a high doctor-population ratio of 1:650 and a survey finding of AKU that in 75 per cent of cases of childhood disease first-line treatment outside the house is sought at the clinics of private doctors.

The surprising appearance of smallpox (locally *chechak*) in Table 2 was investigated further. A child seen on a household visit and suffering from chickenpox was labelled as having *chechak*. In a focus group smallpox was reported to have reoccurred after eradication. (In fact, some newspapers reported this story some years ago.) Smallpox was frequently mentioned as a target disease of the continuing vaccination program. It would appear that the perception of smallpox is a mix of chickenpox and parents' remembrance of the deadly smallpox.

The humoral disease concept of hot and cold plays a dominant role in newborn and young children, particularly in the first 40 days of life, the period of ritual seclusion after birth, called *chilla*. Cold environment or food perceived to be cold, given to the child or taken by the breastfeeding mother, is regarded as dangerous and may cause difficulties in breathing and other problems.

Further ethnomedical models of disease causation discussed in the focus groups were the evil eye, *nazar*, caused by the sight of a malevolent or jealous person; black magic, *kalla jadu*; and bad influence or shadow, *saya*, mediated by malevolent or impure persons. One focus group acknowledged these models and stressed that the evil eye is common and may cause various diseases like fever and typhoid. Beautiful and healthy children are particularly vulnerable. For treatment, seven red chillies are moved around the patient's head and then burned, a procedure called *nazar utarna* which means taking away the evil eye. Protection and cure are also sought from amulets containing verses of the Holy Quran, called *taveez*. Another focus group answered quite differently: 'We are good Muslims and don't believe in magic. We recite our *kalema* (holy prayers and verses of the Holy Quran) to make our child safe from evil influences'. This view was shared by the other participants in this group.

Social and emotional environment

'A child needs due affection and love. He should be mentally and physically satisfied from parents' side'. 'A father gives affection and attention to his child'.'There should be harmony in the family'. 'In order to keep his child healthy, there should be a proper time-table, I mean proper and fixed time for study, for play, for sleep and waking time, and for food'.

These typical statements highlight the main concerns: parents' love and attention, harmony and discipline, 'but no undue strictness'.

Fathers' participation in child care

In this area, children are entitled to have their fathers' attention after his return from work. As far as working hours allow, most fathers will spend some time with their children and engage in activities like playing, taking them out and carrying them around, thus introducing the child to the outside world. Half an hour to two-and-a-half hours are reportedly spent with children daily. Weekend excursions to parks, the seaside and the zoo are popular. Further common activities include soothing a fussing child at night and singing lullabies, preparing food, bathing and giving medicine. Story-telling, cutting nails, rubbing the child's chest with

'Vicks Vaporub', tepid sponging and administering oral rehydration were also mentioned. 'We take the child out for play and recreation'.

'After work in the evening, we help our wives by looking after the child'. 'I take my child to the doctor and administer medicine, I take care even if he awakes at night and try to get him sleep'.

Changing nappies was a particular issue. One father commented: 'A child is father's blood, he should manage everything!'

However, the majority of participants in focus groups and key informants say they cannot do it. Nevertheless, cleaning the child and changing nappies was reported by a considerable minority, 11 out of 47 respondents (23%): five participants of focus groups, three male key informants, one female key informant and two women in lane meetings.

Observation during four afternoons and evenings in the streets, places and bazaars in Orangi revealed numerous fathers carrying their small children: of all children being carried, 131 (75%) were carried by men and 43 (25%) by women. Even in the mother's presence, it was the father who carried the child in the majority of cases: out of the 174 persons with a child, 41 men and 31 women were accompanied by an adult of the opposite sex, assumedly husband or wife. In six out of these 72 cases each partner held a child, in the remaining 60 couples the child was carried by the man in 35 cases (58%), by the woman in 25 cases (42%). Men could be seen playing intimately with their children. Fathers met on household visits for interviews demonstrated their expertise in child care by rocking the child and singing lullabies.

In the case of disease, many fathers bring the child to health care providers themselves. Two general practitioners estimated independently from each other that at least 30 per cent of children are brought for treatment by their father. When visiting their clinics, 27 children (55%) seen there were brought by the mother, 22 (45%) by the father. General practitioners provide the first contact level for the majority of the population and are consulted by 30 to 80 clients per day.

In contrast to the clinics of private doctors, the PHC centre of AKU was perceived as part of a Mother and Child Programme and thus not open to men although this was never stated by the program. In a five weeks period with 176 consultations (about 7 per day), only six fathers entered the premises of the PHC centre: three accompanying their children, three accompanying their wives.

Taking children out is seen as a primarily male activity. Bringing a sick child to a clinic for curative care is a shared task, in which the actual circumstances like severity of symptoms and presence of care-takers determine who is going to accompany the child. The other activities as mentioned above are regarded as assistance to the mother. In this context, the interesting fact was mentioned that in the years before the installation of taps, fetching water was a male task.

Fathers' compliance

While paternal task allocations were little disputed, the actual degree of compliance was a controversial issue. 'I have given the child into the entire care of the mother as I get too tired when I come back from work'. This statement prompted immediate dissent. The fathers working in or near Orangi stressed their care-taking activities; those with distant working places expressed their frustrations about the hindrances to giving their children the due attention because of late return from work and their state of poverty in general. However, there was a general agreement that most fathers in Orangi try their best as far as their living conditions allow.

Fathers' self-portrayal was cross-checked with mothers and community health workers. Building on their experiences from regular household visiting, health workers were the most productive source of information on the extent of fathers' compliance with their role model. They estimated that between 80 and 95 per cent of fathers 'are good fathers' and participate in child care accordingly; they attributed lack of paternal care in order of priority to long working days because of distant working places; poverty; drug addiction; carelessness; and disease of the father. While the first two points are rather general and largely beyond the control of the individual, the increasing importance of drug addiction as a social problem is supported by the observation that the majority of cases of severe malnutrition in Orangi occur in families where the father is a heroin addict. In the context of paternal care several mothers and health workers complained that sometimes attention given by men to their wives compares unfavourably with their concern about the children.

Fathers' role in decision-making on child health issues

Statements on decision-making in families were quite diverse. In order to structure them, they were divided into statements concerning generation dominance, concerning gender dominance and concerning the process of decision-making, as the main hierarchical principles in the families are age and gender. All sources (focus groups, key informants, lane meetings) reveal that the parents have the last say in the majority of families (28 statements); the grandmother was seen in this position by a minority (9 statements). 'We have to obey my mother'.

Core comments from focus groups on sex-roles in decision making were: 'In our society this is decided by the male members; however in case of emergency the mother takes the child to the nearby doctor'. 'Because we don't stay at home all the time, our ladies know what to do and where to take the child'. 'No need of permission, it is a matter of my child's life and she is not going to a wedding party, she is going to save my child's life, so no permission is necessary'.

All options ranging from the father as dominant decision-maker to joint decision-making and to woman's dominance were mentioned by all sources, but both men and women stressed the role of their own sex. Two interacting concepts emerge: first, males are generally regarded as the ultimate authority in the family; however, females are regarded as the family child health experts. A key informant, working in the field of community development, described the situation: 'Fathers think they decide, but women do'. As mentioned by women in lane meetings, fathers' involvement in decision-making depends also on the severity of the health problem and the related costs. In the father's absence, women are allowed to take the child for treatment; beyond that, it is their duty to take action when a child falls sick.

According to most informants, disagreement on health issues is rare, although some say that it is common. When it occurs, it is almost exclusively along generation and not along sex lines. Vaccination is stressed as a controversial issue, in which parents often over-rule grandparents. The community development worker and key informant summarized: 'There is a lot of dynamics in these decisions and it is not purely hierarchical; the conditions force co-operation. Men's role is crucial, their consent and support is needed to achieve any change.'

Discussion

This study reveals clearly defined sex-related priorities: fathers are in the first place resource providers, mothers are the primary care-takers of children, a task allocation found in most societies. However, second-line care-taking qualities of fathers and their proximity to children show enormous cross-cultural differences and vary from almost casual contact to heavy paternal involvement in day-to-day child care (Coltrane 1988). The discussion concentrates on the area beyond mere provision of resources and expands on fathers' concept of child health needs, which is basic to the understanding of their role in child health and to fathers' actual participation in child care.

Fathers' concept of child health needs

The most important determinants of child health in fathers' view are physical and social environment, availability and quality of food, financial resources and diseases. These priorities match well with public health thinking.

Cleanliness-uncleanness and purity-impurity were related to almost any aspect of child health: stagnant and filthy sewage drains, unclean and impure food, impure water and filthy air are all seen as major health hazards. Boiling the water is assumed to be useless, because the muddy sediment after boiling indicates that it is still unclean. Breast milk is appreciated because of its purity.

Although largely in line with modern medicine, the concept of cleanliness and purity goes far beyond the idea of hygiene and contamination with germs. As shown by Mull (1991) in her study on perceptions of marasmus in Pakistan, impurity in itself is seen as the source of evil influences. Evil influences caused by malevolent (and ritually impure) people are believed to be transmitted like infective agents by water and even by air. As indicated in the literal meaning of Pakistan (country of the pure), cleanliness is an integral part of Islamic teaching and traditions (Buschmann 1988: 11-77).

It is assumed that with this cultural background ideas of modern hygiene with all its pathogens were perceived as an addition and reinforcement of the existing pollution concept. Furthermore, this synthesis may be the reason for the outstanding emphasis given to cleanliness and purity. It may partly explain the success of the Orangi Pilot Project in mobilizing and organizing the people for the construction of underground sewerage pipelines in a self help and self financed program, an undertaking that in its beginning was regarded as impossible by donor agencies (Mubarak et al. 1990; Khan 1991).

Fathers' participation in child care

The observation that infants, seen in the street, are often carried by men comes as a surprise to many foreign visitors to Pakistan. In other cultures this is a rare event and, as in large parts of Africa, one would expect a woman to carry two children rather than a man to carry one child. As pointed out by Hewlett (1991), carrying is quite a good measure of the father's level of infant involvement, because the father is actively engaged and expending energy on the infant instead of using it in other activities. Our observations of fathers' child-holding even in the mother's presence support the fathers' stated closeness to their children. According to the task allocation of fathers found in Orangi, levels of involvement depend on the quality of the activity. Taking the child out and related activities, as well as religious education, appear to be genuine paternal tasks. Fathers share also a large part of the responsibility for the children's mental well-being and their education towards becoming responsible members of the society. Related activities are comforting, playing and ensuring a reasonable degree of discipline. Day-to-day child care like feeding and cleaning as well as care for the sick child is

regarded primarily as the mothers' task; fathers' activities in this area are seen as assistance to the wife. A similar pattern was found in industrialized countries (Bax, Hart and Jenkins 1990: 161-162): 'Fathers' time is more likely to be spent playing than on other caretaking tasks (such as feeding or changing nappies)'. However, it is not taboo for Orangi fathers to do so under special circumstances such as when the child falls ill. Among the factors which contribute to this level of paternal involvement, the tradition of female seclusion, *purdah*, and its influence on the division of labour among spouses appear to be prominent. The restriction on women's movement in public may be the origin of the paternal task of taking the child out. Many activities, defined as female in other cultures, such as shopping or fetching water are shared with or passed on to the men; in fact, in some parts of Pakistan, office hours are arranged in such a way as to allow the employed men to do the shopping before going to work (Papanek 1982). The great emphasis on children and family life in Islamic culture (Papanek 1982; Buschmann 1988) may enhance the priority for spending time with children compared to other competing activities. The transition process in the deprived urban environment interacts with this traditional background. This is particular evident in the area of decision making, where conditions force a high level of co-operation between spouses. Further research is needed in this area.

Limitations

Bias may have been introduced by translation. In order to minimize it, the taped focus group interviews were translated independently by different translators. The selection of informants was not at random but purposive; therefore, the views of the less articulate section of the population may not have received the due attention and dysfunctional fathers may have been excluded. Knowing our interest in child health may have induced some fathers to exaggerate their role. However, there was a serious effort to control these biases by triangulation, using information from other informants like mothers and CHWs, from a document review and as far as possible from observation for cross-checking.

Regarding the fathers' concept of child health the main researchers' background as medical professionals and their relation to the Primary Health Care program of Aga Khan University may have caused reluctance to elaborate on traditional disease concepts. Regarding fathers' participation in child care a methodological problem emerged, because caretaking activities could be observed systematically only outside the home, in public places and in doctors' premises. The main source for cross-checking fathers' statements on activities at home were women and community health workers. These workers were a particularly valuable source, because through their regular and systematic visits they gain insight in all households in their assigned areas. Problem families like those with malnourished children are particularly well known, because they are visited more intensely and frequently.

The study cannot claim to be representative of Karachi's squatter areas in general because of the great diversity in ethnicity, religion, infrastructure and socio-economic conditions. The situation in rural areas is even more different. According to the importance of fathering and the lack of knowledge about it, future research is needed particularly in rural areas as fathers' co-operation may be even more crucial because of the unfeasibility of home-based interventions and stricter female seclusion.

Conclusions

From our research, it appears that Orangi fathers are physically and emotionally close to their children. They highly value the family in general and children in particular. Beside their expected role as resource providers and allocators they are important second-line caretakers and key persons in decision-making on child health issues.

The primary objective of this study was to provide baseline information on paternal care. However, even at this stage we can draw the following conclusions which affect policy.

First, it seems that fathers are an underused resource for the improvement of child health: the low status of women in general and low female literacy have been related to Pakistan's high infant mortality (Martin et al. 1983; Sathar 1987; Thaver, Ebrahim and Richardson 1990; Dharssi and Rutherford 1992). So there is a rationale behind the established MCH concept and its focus on the mother as key to the child's well-being. However, there is no reason to exclude fathers at the same time. This may be true for most societies; it is all the more true for the religious and socio-cultural environment found in Orangi, where fathers' involvement in child care is related to the tradition of *purdah* and the resulting paternal task allocations. Furthermore, fathers' education has also been shown to enhance their children's health status (Thaver et al. 1990; Dharssi and Rutherford 1992). Under these conditions, a 'mothers only' approach of health services lags far behind social reality. It leaves a powerful resource for child health untapped as male involvement in child care is not a reason for the socio-cultural restrictions to women, but rather a coping mechanism with these restrictions and an additional support. This situation calls for a two-pronged approach to child health promotion involving fathers and mothers.

Up to now, the Primary Health Care program in Orangi has pursued a mother-centred MCH approach but the established centre-based service delivery was replaced by household-based services. This intervention has increased the coverages in preventive MCH care. Salaried community health workers through household visits compensate for the restrictions on their fellow women's mobility. While this intervention has helped to improve MCH care, it is not a long-term solution. It should be accompanied by an effort to address and involve fathers with the aim of enabling parents to jointly manage preventive child care as they do in other essential household functions like shopping and care for the sick child.

Secondly, the father should be accepted and developed as a partner with the health service providers for the improvement of child health: a high degree of agreement between perceived health needs and professionally defined needs is a precondition for the acceptance of any health program and eventual participation in it (Banerji 1986). There is a remarkable coherence between fathers' and professionals' view on the importance of many diseases like diarrhoea, pneumonia, measles and polio, as well as on vaccination as a means of protection. Other areas like nutrition, physical environment and sanitation are common concerns, but the underlying concepts are different. The biomedical concept of disease causation by no means reaches the scope of the prevalent traditional ideas of cleanliness and purity, summarized here as pollution concept, which is closely linked to Muslim culture. However, there are more similarities than contradictions between the biomedical and the pollution concept, the idea of an infective agent being a prominent feature of both. The traditional pollution concept with its emphasis on personal hygiene contains many ideas of public health. Another prominent concern of fathers, their state of poverty, is not denied as a cause for ill-health by health professionals; however, most child health programs do not include or are not linked with activities to reduce poverty.

Finally, the standard approach to child health as promoted by international bodies often does not respond to local needs. The fact that fathers put pollution in its broadest sense and the problem of poverty, both of which affect the family as a whole, on top of the agenda in the context of child health, brings us back to a major observation raised in the introduction;

this is the low acceptability of established MCH services and their inappropriate design. The study highlights two dimensions of the present narrow approach to MCH and the related disadvantages: the first is the narrow definition of the target population, as a result of which fathers are excluded from MCH programs. The second is the reliance on a set of internationally standardized interventions rather than on health problems and related solutions in the local context. After more than a decade of investment in MCH programs with relatively little success, new thought should be given to a re-design starting from existing child care practices. This study has established that fathers contribute to child care. Further studies are needed to develop and test appropriate interventions in a participatory approach.

References

Aga Khan University, Department of Community Health Sciences. 1990. *Report on Thatta Health Systems Research Project Phase I 1986-1989*. Karachi.

Annett, H. and S.Rifkin. 1988. *Improving Urban Health. Guidelines for Rapid Appraisal to Assess Community Health Needs*. Geneva: World Health Organization.

Banerji, D. 1986. *Starting from the People*. New Delhi: Lok Paksh.

Bax, M., H. Hart, and S.M. Jenkins 1990. Fathers' role in child health. In *Child Development and Child Health*. Oxford: Blackwell Scientific Publications.

Buschmann, K. H. 1988. *Pakistan: ReisefŸhrer mit Landeskunde*. Buchschlag bei Frankfurt: Mai Verlag GmbH.

Caldwell, J. C. 1986. Routes to low mortality in poor countries. *Population and Development Review* 12, 2: 171-220.

Coltrane, S. 1988. Father-child relationship and the status of women: a cross-cultural study. *American Journal of Sociology* 93, 5: 1060-1095.

Dharssi, M. and C. Rutherford 1992. The development of a growth faltering index. Report for a Master's Degree in Community Health and Epidemiology. University of Toronto and Aga Khan University, Karachi.

Doan, M. R. and L. Bisharat. 1990. Female autonomy and child nutritional status: the extended-family residential unit in Amman, Jordan. *Social Science and Medicine* 31,7: 783-789.

Government of Pakistan. 1993. *Economic Survey 1992-93*. Islamabad.

Hewlett, B. S. 1991. *Intimate Fathers*. Ann Arbor: University of Michigan Press.

Khan, A. H. 1991. *Orangi Pilot Project Programmes*. Karachi: Orangi Pilot Project.

Krueger, R. A. 1986. *Focus Groups. A Practical Guide for Applied Research.*

Newbury Park: Sage Publications.

Mahmud, S. H. 1986. PHC in Pakistan for children's survival. Pp. 177-199 in *The Quality of Life in Pakistan*, ed.I. Nabi. Lahore: Vanguard Books Ltd.

Martin, L. G., J. Trussell, F. Reyes-Salvail and N. M. Shah 1983. Covariates of child mortality in the Philippines, Indonesia and Pakistan: a comparative analysis. Paper presented at the 52nd Annual Meeting of the Population Association of America, Pittsburgh, 14-16 April.

Mubarak, K., S.Shafqat, U. Malik, R. Pirzada and A. F. Qureshi. 1990. Health attitudes and beliefs of working women. *Social Science and Medicine* 31,9: 1029-1033.

Mull, D. S. 1991. Traditional perceptions of marasmus in Pakistan. *Social Science and Medicine* 32, 2: 175-191.

National Institute of Population Studies. 1992. *Pakistan Demographic and Health Survey 1990/1991*. Islamabad, and Colombia MD: IRD/Macro International Inc.

Papanek, H. 1982. Purdah in Pakistan: seclusion and modern occupations for women. Pp 190-216 in *Separate Worlds. Studies on Purdah in South Asia*, ed. H. Papanek and G. Minault. Delhi: Chankaya Publications.

Reitmaier, P. 1989. EinfŸhrung in die Mutter-Kind-GesundheitsfŸrsorge. Pp. 203-215 in *Medizin in EntwicklungslŠndern: Handbuch zur Praxisorientierten Vorbereitung fŸr Medizinische Entwicklungshelfer*, 5th. edn. Frankfurt am Main: Verlag Peter Lang.

Sathar, Z. A. 1987. Seeking explanations for high levels of infant mortality in Pakistan. *Pakistan Development Review* 26, 1: 55-70.

Southern Community Health Research Unit, South Australian Health Commission. 1991. Qualitative research (Section 4). Pp 174-245 in *Planning Healthy Communities. A Guide to Doing Community Needs Assessment*. Adelaide: Flinders Press.

Thaver, I. H., G. J.Ebrahim and R. Richardson. 1990. Infant mortality and undernutrition in the squatter settlements of Karachi. *Journal of Tropical Paediatrics* 36: 135-140.

United Nations Development Programme (UNDP). 1991. *Human Development Report 1991*. New York: Oxford University Press.

Walker, R. 1985. An introduction to applied qualitative research. Pp. 3-26 in *Applied Qualitative Research*, ed. R. Walker. Aldershot: Gower Publishing Company.

Williams, C. D., N. Baumslag and D. B. Jelliffe. 1985. *Mother and Child Health. Delivering the Services*. 2nd edn. Oxford: Oxford University Press.

World Bank, EMENA Regional Office. 1989. *Pakistan: Rapid Population Growth in Pakistan. Concerns and Consequences*.

World Bank. 1993. *World Development Report 1993: Investing in Health*. New York: Oxford University Press.

World Health Organization (WHO). 1995. *The World Health Report* 1995. Geneva.