POVERTY ALLEVIATION IN PAKISTAN - THE BAQAI MODEL
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Abstract
Poverty Alleviation in Pakistan has been given a lot of importance during the last few years. The public sector has been trying to evolve a strategy so as to alleviate the poverty in the country. The Baqai Model has clearly evolved as only strategic approach to solve the problem of poverty in Sindh and is applicable to all Pakistan and elsewhere. This article addresses the different aspects of the Baqai Model applicable to alleviate and eliminate the poverty by integrating education, health and community development.

KEY WORDS
Baqai Model, Poverty Alleviation, Social Obstetrics.

Introduction
The project has evolved in a problem solving manner over the past 15 years, since the foundation of the Baqai Medical University in 1986. It is way of dealing with the health problems of the deprived rural people outside Karachi. The University is situated at Gadap, 30 km from Karachi on 70 acres. It has expanded with the aim of developing a University City at Gadap having a Cadet College, Veterinary College, Faculty of Business Administration and Institute of Information Technology.

Over 300 students are admitted into 6 faculties for 11 degree courses annually. The medical students are subsidized by 3 lakh rupees per year by the Baqai Foundation in addition to grants to poor students.

The Baqai Medical University provided the first Community-based medical education in Pakistan when founded in 1986. The Faculty of Community Medicine (Health Sciences) is the backbone of the University. It has 9 surrounding primary health care centers extending upto 40 km from the Campus. These provide healthcare and other services to a catchment population of 500,000 people with referral to the University Hospital at Gadap. This has 500 beds at present and is to be expanded to 1,000.

The Baqai Model has evolved with three units developed already at Gadap, Gharo (70 km from Karachi in the Thatta district) and Windhar in Baluchistan (70 km from Karachi). This is in the process of developing more such units at Khuda Ki Basti, Surjani Town, Baloch Khushal Goth and Umer Kot in Sindh.

Features Of Baqai Model
These are the successful starting points for a program that aims at producing 150 such units throughout Sindh by the year 2015, at 5 per year. The cost of each unit is estimated at Rs. 1 million per year - a ridiculously low cost especially when compared to the expensive failures in the past. Great confidence in the project is bolstered by success of the Baqai Model in areas where the Pakistan Government, WHO, UNICEF and Aga Khan have been only partially successful.

The reason for the success of the Baqai Model has been its problem solving strategic approach developed over 15 years making it the unofficial world leader in dealing with the plight of deprived rural poor in developing countries such as Pakistan.

Characteristics of Baqai Model
1. It is community involved not merely community oriented1. The needs of the community are considered, discussed and the site of the unit chosen in consultation. Employment is largely from the local community and the community is involved in the administration of the unit in an increasing fashion. This is the only real way of ensuring sustainability. The starting point is the health service to provide an obvious early benefit to these suspicious exploited people2. Baqai provides a secondary service with visiting specialists to provide quality care because of widespread failure of primary healthcare.

1. Director, Center for Medical Education, Baqai Medical University, Karachi. 2. Dean, Faculty of Biological Sciences, Baqai Medical University, Karachi.
2. The Baqai Model is rural as no urban organization can really deal with rural deprived people. City based organizations make a mockery of devolution and grassroots activity and are a major reason for failure of otherwise satisfactory schemes. The Baqai Model is firmly committed to a bottom up approach.

3. It is university based. The role of university is not usually fully comprehended.
   (a) The university acts as a valuable check and balance in any devolutionary process. What deprived people want is not identical with what they need, e.g. they won’t hope a future, television and a less stressful life but need potable water, education and sewerage. This is an old idea harking back to the Greek Philosopher Plato but its time has come.
   (b) The University provides an academic backup to the local community by assessing needs, applying solutions and attaining longitudinal evaluation. This is sadly lacking in the official statistics of developing countries such as Pakistan.
   (c) Advanced concepts can be applied. At Baqai we are aiming at the prevention of diabetes through intrauterine programming by antenatal nutrition - clearly far more important than early detection schemes and have already virtually eliminated pre-term babies by feeding the mothers extra calories in late pregnancy. This is far more important than early detection schemes based on hypertension, ECGs or serum lipids, particularly in developing countries.

4. It combines all the components necessary for poverty alleviation - education, healthcare, income generation, social obstetrics (women’s affairs) and development of a sense of community. It is expensive, inefficient and ineffective to separate these into various departments as is done in top down organizations such as Government, WHO and UNICEF because they are totally interdependent. Furthermore, government initiatives in the future should realize that an executive supraministrational approach has to be applied. Expert committees and departmental advisory bodies are against bottom up initiatives such as the Baqai Model. The components of this process also require effective input. Education, perhaps the most important component, requires improvement in addition to expansion. This is easily achieved by incorporating recently discovered brain physiologically compatible systems instead of obsolete psychologically based methods. This teaches children to think instead of just rote based memory.

Social Obstetrics was initially founded by Professor Zahida Baqai to deal with the horrifying maternal mortality and condition of rural women. This succeeded in reducing maternal mortality to virtually zero and reducing perinatal mortality to half by better organization and application of the principles of molecular modern medicine, without expensive equipment. Furthermore, because the role of women in social structure is vital, it is thought that social obstetrics may well be the future of primary healthcare rather than ineffective present day primary healthcare centers.

Development of a sense of community is usually not taken into account but is vital for the sustainability of rural poverty alleviation and its further development.

The Baqai Model of combined services is built as a quadrilateral structure to assist community. A community hall is provided initially for education and entertainment, and handed over to community management as soon as possible. The industrial home encourages the spread of learned skills to the community. Provision of 2 acre farms and such enterprises as fish farming form the second stage of poverty alleviation leading to further community employment by cooperatives. It is noteworthy that microventure capital for such schemes is more Islamic and effective than microcredit schemes such as Grameen banking. These have failed at Gadap.

6. For success of the Baqai Model individual drive, purpose and strategic vision as epitomized by Professor and Mrs. Baqai, are an essential prerequisite for success. This is also of importance in local management when great care must be taken in choosing leaders in consultation with the community.

7. Any financial success must be retained by the community, therefore any scheme that provides a profit for the initiators will not succeed. Care must be taken to avoid the development of entitlement among the community.

**How Have The Poor Benefited**

The Baqai Model has already been functioning for 15 years and after a slow initial start is now advancing rapidly and is ready for further expansion. The present and future status of benefits is as follows:
Gadap

The primary care center was modified into a Social Obstetrics Unit in 1997 at a cost of US $26,600. When evaluated for an international congress attended by delegates from 23 countries in 1998, it had additionally provided free schooling for 125 children and by use of its skill’s center, had almost doubled the income of its initial trainees to Rs. 5,000 per month. Furthermore, the diabetic prevention project virtually eliminated preterm babies in a pilot study of maternal feeding in late pregnancy - of potentially enormous significance in Pakistan with 19 million diabetics. Since then the achievements have been as follows:

1. Healthcare and Education

Despite an 80% incidence of home deliveries, no maternal deaths have occurred since 1997. Perinatal deaths are 43 per 1000, half the national average. This has been achieved by organization and training of dai’s in common sense application of advanced ICU and molecular medicine principles, without special equipment. Antenatal care is shared with the adjacent university in complicated pregnancies, with an increase in hospital deliveries to approximately 60% this year.

Contraceptive Services have improved with more than 50% uptake of contraception by the 1000 patients attending thus far in 2002. Of the 545 patients, 180 used oral contraceptives, 250 injectables, 30 condoms and 85 intrauterine contraceptive devices. This is far above the national average, but increased efforts need to be made in this vital area utilizing newer approaches to the problem.

Immunization: With the opening of EPI Center in January 2002, immunization has increased to well over 90% from a total of 671 immunizations in 2001. The service is now offered 6 days per week, and includes Tetanus Toxoid to pregnant women. Need less to say, the government schedules for polio are fully implemented, and indeed an extended service is carried out on behalf of the government on the Super Highway on buses going to the interior of Sindh.

Dental Services: A free clinic is available for the population as well as dental education.

Health Education: This is carried out at the center, the school and in the community. Thirty to forty visits are made to the community per month and are well received.

2. Education

The primary school has been expanded with new classrooms added in a new building. There are now 11 teachers with a pass percentage of 93.5% overall and attendance is 98.25%. The number of children registered at the school are as follows:

- 1997: 32
- 1998: 125
- 1999: 200
- 2000: 260
- 2001: 324
- 2002: 376

The syllabus, approved by the Sindh Board of Education comprises English, Urdu, Mathematics, General Science, Social Studies, Islamic Studies, Arabic, Sindi and Drawing. In addition, starter computer toys have been acquired for the resources center and this area will be expanded. These rural children are also taught practical gardening skills in the school grounds and health education is integrated into the school timetable.

A unique feature is the addition of learning "how to think". This has been incorporated enthusiastically and effectively by the teachers and is included in examinations. This area should provide a significant advantage to our schools later on, and the students have been so successful that they have been promoted by an extra grade after examinations.

The children have been provided with free uniforms and books. A school feeding scheme was introduced and studied in 19 boys and 11 girls. This produced an increase in Body Mass of 1.6 in males and 0.96 in girls at the end of the study period of 3 months. This confirms the essential need for school feeding to compensate partially for a deprived home environment and of university centering in establishing this important principle.

Adult education is also carried out in the summer vacations for three months every year. This year 33 adults registered and 94.4% of attendees passed.

Income Generation

The Skills Center is growing rapidly. At present 7 teachers and 145 community students are present thus far. The following skills are taught - Arts and crafts, sewing, embroidery, painting, ceramics, beadwork, zariwork, flower arrangement, jute craft, canework and woodwork. School uniforms including for the Baqai Cadet College as
well as hospital related products were produced to a market value of Rs. 245,500.

The total value of the products sold in 2000 was Rs. 19,620 and Rs. 16,305 in 2001. These sales are carried out on entrance day to school annually. Clearly marketing needs to be improved.

A total of 40 apt trainees have been returned to their villages with startup equipment. The exact number of sustained projects is uncertain but is more than 50% as a substantial number have moved to other areas on marriage - their marriageable value having increased substantially. The total number of students trained was 271 (1999), 250 (2000) and 145 (2002).

4. Development of a Sense of Community

The most important criteria of success, while in a community is development of a sense of ownership and active involvement by the community members. In this regard a community hall has been established and phase-11 development as at Gharo is to be instituted.

Gharo Center

Gharo was initiated in 1998 and funded entirely by the Baqai Foundation. It has achieved the following.

1. Healthcare

<table>
<thead>
<tr>
<th>Year of study</th>
<th>2000</th>
<th>2001</th>
<th>2002 (Jan-June)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outpatient visits</td>
<td>17762</td>
<td>31157</td>
<td>20698</td>
</tr>
<tr>
<td>Operations</td>
<td>209</td>
<td>548</td>
<td>597</td>
</tr>
</tbody>
</table>

Specialist clinics have been established in Medicine, Pediatrics, Obstetrics & Gynaecology, Surgery, Diabetes, Dermatology, Family Planning, Ophthalmology and Chest diseases. Treatment is free e.g. more than 120 lens implants have been carried out in 2002 so far.

2. Education

The school attendance, with 7 locally recruited teachers, is 254 after three years of functioning. It is expanding by over 50 pupils per year. The same syllabus is taught as at Gadap with the same facilities. Attendance is over 98% and the pass rate is 84%.

3. Income Generation

The industrial home was started on 23 March 2001, and has 6 employees. Three hundred & fifty uniforms were distributed free of cost to all students with a market value of Rs. 87,500. The total sales of industrial home products in the first year realized a profit of Rs. 10,200 for an outlay of Rs. 53,000. These goods included glassware, lace, flower vases, guldan sets, and children's ready made suits. This area is expanding rapidly.

4. Community Medicine

An extensive program has been established by the Department of Community Medicine. Community lectures have been delivered on Hepatitis-B, diarrhoea and malaria. The students are involved from the first year study and a survey has been carried out in Gharo city at the end of May to assess the problems of the community. The results are not yet available.

Development of Sense of Community

In addition to the compact structure in a single building and the community hall, the second phase of development is well under way with the acquisition of plots for farming and fish farms. The farming plots are sustainable, 2 acres in size, and the 25 recipients, the poorest in the area, will be provided with water, seeds and expert advice.

Windhar

The most recently opened center in Baluchistan demonstrates the flexibility of the Baqai Model. The medical facility needed is an eye hospital, stated to become the regional center. The school already has 55 children and income generation is to focus on farming in this deprived area.
References


