## DIFFICULTIES IN SELECTING A SUITABLE CONTRACEPTIVE FOR DEVELOPING COUNTRIES

by

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The population of developing countries constitutes two thirds of world population. According to United Nations definintion, these countries include regions of the Far East, China (Mainland), the Near East, Africa and Latin America with a rate of population growth estimated at 2.2%. The developed regions which include Europe, Soviet Union, North America and Oceania have a rate of population growth of 1.3% only.

If the present population growth rates continue as such, the population problem in developing countries is expected to be aggravated more with the accompanying economic, health and educational pressures making such countries more less developed. Therefore, fertility control is needed more urgently in developing countries than in the developed ones.

The selection of a suitable contraceptive when used at a national level is limited by many conditions. These are governed by local, social, economic, cultural and health factors. Such factors should be taken into consideration in the choice of the contraceptive method. What may be ideal for a well built American woman may not suit a mal nourished Indian. A German woman may follow a contraeptive schedule more accurately than an illiterate Korean.

The research program in developed countries introduced in use the so-called modern contraceptive methods. The application of these modern methods in developing countries was faced with many unexpected local difficulties. These difficulties hindered the approach of the appropriate goal of population control in these developing countries.

From our experience, we will present some of these local difficulties that we have encountered during the past years when these modern methods were used on large scale. These problems are classified as follows:

#### I.—Health Problems:

In developing countries, the health conditions are relatively lower than in developed countries as a result of the malnourishment and infections especially with parasites. It is expected that women in developing countries suffer from anaemias and disturbed liver function among many other health problems. That should always be taken into consideration in the choice of the contracemtive method. Thus, the associated excessive menstrual loss in almost 40% of the loop users will aggravate the already present anaemia. This sequelae puts an urgent need for more research to develop an intra-uterine device that does not lead to excessive bleeding. Trials with hormone releasing devices and devices partially covered with copper have illustrated promising results in that line.

The high dosage combination oral contraceptive pills that have shown liver function derangement should be substituted by pills which have no effect on the already deranged livers, especially in women with bilharzial affection of liver. Several million women in developing countries who are inneed of a contraceptive, as expected to be infected with bilharziasis among whom 1.5 million exist in Egypt alone.

At the present, the available pills are distributed emperically to women all over the world. A consideration must be thought of, to give the slim undernourished under-weight women in developing countries a smaller dose of gestogen compared to the well built healthy women in developed countries.

Apart from the well known health problems, women in developing countries marry at younger age and reach high parity early in life. Such women are then expected to use contraceptives for a future period of 15—20 years. We do not know what will happen after 20 years of continuous use of fhe steroids, i.e. the pills, or of leaving a foreign body in the uterus, i.e. the loop for such long periods.

#### II.—Economic Problems:

Both governments and individuals suffer from economic pressures in developing countries. It is considered to be a responsibility of governments in developing countries to run programs of population control. Such programs must be conducted with the lowest possible cost which needs minimal foreign currency. Therefore, contraceptive methods in developing countries ought to be developed and manufactured locally.

The preferable contraceptive for the developing countries is the one that does not need monthly deduction of the family budget. The main advantage of the loop when first introduced was to solve such problem.

#### III.—Cultural Problems:

In developing countries, local experts are needed who can understand more the existing conditions in their countries and who can conduct research studies to solve the local problems. Preparation of enough numbers of these local experts should be considered if we are trying to solve the population growth problem in developing countries.

Another cultural problem is the difficulty encountered in followin the accurate schedule of certain contraceptive methods by the illiterate women who represent the majority of contracemtive users in developing countries. With such difficulties, the uninterrupted daily use of oral contraceptives is more suitable than the cyclic ones. Despite that, the taking of the pill might be forgotten. Long acting injections may be more suitable in such women who believe more in parentral than in oral medication and who prefer to lay the bruden of conception control on the medical attendants.

### IV.—Social Problems:

In developing countries there are some social habigs that has to be considered in the choice of the suitable contraceptive.

Breast feeding is commonly practiced fof the longest possible period. The average period of lactation in Egypt is about 18 months. Lactation does not represent a problem in developed countries where most women have to return early to work and it is more convenient to them to resort to artificial feeding which theycan afford.

The use of combination oral pills have adversely affected the milk both qualitatively and quantitatively resulting in high infant mortality. Such side effects will condemn the use of these pills during lactation. A goal of future research must be directed to introduce pills not interfering with milk production.

A second social problem in Moslem countries is that the practice of praying is forbidden during menstrual bleeding. A contraceptive method like the loop, commonly associated with prolonged duration of menstruation and spotting, will be undesirable in such communities.

A third social problem which is reported is that in certain areas of India, one of the prevailing superstitions is not to allow women into the kitchen during menstruation. This attitude wil deprive the other members of their families from having a cooked meal. Thus a method of contraception leacing to prolonged menstruation will constitute a family problem.

Another social problem is the fact that in developing countries, especially in rural areas, the whole family usually lives in one room. The conventional methods under such situations are not applicable because of difficulties in introducing the diaphragm, or making vaginal douches or disposal of condoms under such conditions.

# Research Efforts Towards A Suitable Method of Contraception in Developing Countries

After the previous presentation of the difficulties and circumstances in developing countries, research work should not stop at the level of the so-called modern methods available now. We believe that the following methods may be more applicable to developing countries:

## 1. Low Dosage Daily Pills

These pills could be taken countinuously without interruption irrespective to menstruation. Besides, they do not in terfere with the physiological functions functions in connection with ovulation or lactation. The disadvantages are limited to occasional menstrual irregularity or occasional occurrence of pregnancy.

## 2. Pill a Month

The pill is composed of 2 hormones, the first is long acting estrogen and the second is short acting highly effective progestogen. The withdrawal of the effect of the progestogen will produce bleeding, i.e. menstruation and so it is first given on the 25th day of the cycle and then calendarily. Such pill could be easily followed in developing countries.

## 3. Long Acting Injectable Contraceptives

There are different types varying in composition and duration of effect, some are given monthly, others every 3, 6 or 12 months.

## 4. Intra-uterine Devices

The hormone releasing intra-uterine devices have shown experimentally less expulsions and bleeding. The copper platted loops are under trials to see its effect on menstrual loss. The copper is said to affect the enzyme mechanism of endometrium and thus diminishing the menstrual bleeding.

## 5. Immunoligic Methods

Research along this line has proceeded greatly in the last few years and is expected to yield methods that can be used in mass. The methods include the active or passive immunization of the female against human semen, the use of spermatozoa as an antigen injected in males. Such immunological methods in females and males are expected to be the future methods in fertility control.

## 6. Modern Sterilization Approaches

Temporary sterilization could be practised by the blockage of fallopian tubes in females or the vas deferens in males with silastic. This can be easily removed at any futue time with ease.

Sterilization through couldoscopy is considered a minor surgical procedure that is relatively inexpensive and more acceptable than the other major surgical procedures.

In conclusion, the answer to the question of selecting the suitable contraceptive to be used on a large scale in developing countries is still unsettled. The problems encountered must be solved by persevernat research studies conducted locally in developing countries.