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A Research Proposal for the Study of

INCIDENCE, DETERMINANTS AND IMPLICATIONS OF STERILIZATION
 IN PUERTO RICO

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Introduction:

During the last forty years the population problem of Puerto Rico has received considerable attention. Several groups have been organized with the purpose of disseminating birth control information and to offer family planning services to the poor. Originally they were private organizations of scarce influence and short life. In 1925 the League for the Control of Natality was established at Ponce with the purpose of spreading knowledge about the Island's population problem and family planning practices. The Puerto Rico Birth Control League was organized in San Juan in 1932 pursuing the same objectives. This League established the first birth control clinic in the Island. Due to public apathy and repeated attacks from the Catholic Church these organizations were shortly outlived.

Motivated by the success of a pilot project initiated at the hospital clinic of the School of Tropical Medicine of Puerto Rico, the Federal Emergency Relief Administration began the establishment of birth control clinics throughout the Island. These services were transferred to the Puerto Rico Reconstruction Administration (PRRA) in 1932. At this time there were 67 clinics in existence and more than 100,000 couples had received family planning advice and free contraceptive services. This same year the PRRA

budgeted \$225,000 for birth control but these funds were not appropriated by the U.S. government due to the Catholic Church opposition and pressures.

In January 1937 another private group emerged, the Maternal and Child Health Association of Puerto Rico sponsored by several U.S. philanthropists. During its three years of existence this organization established 28 clinics, took care of 4,000 patients and urged the approval of Law 136 through which the teaching and practice of birth control in Puerto Rico was legalized.

As a result of the favorable attitudes of the Governor and the Commissioner of Health, in 1940 the Department of Health took charge of the program through the Maternal and Child Health Association. By that time, fertility control services were offered in 122 public health units and rural medical centers throughout the Island.

The year 1941 marks the onset of a new trend in the government official policy. In the first place, the fertility control activities were relinquished to the personal prerogatives of the local director of the health units. The name of the clinics was changed to Pre-maternal Health Clinics in 1946 and contraceptive services were more or less limited to patients in which pregnancy constituted a serious health risk.

Finally in 1949, the government revised its policy regarding the population problem. According to the new policy the solution to the imbalance between the resources and the population would be to maximize economic production rather than to promote the use of contraceptive means. From then on the Department of Health clinics offered less and less fertility control information and services.

In spite of this slow down in the services provided by the central government, several Municipal Hospitals pressed by public demand, continued and in some cases increased, their activities in fertility control emphasizing female sterilization.

In response to government indifference toward family planning the Association of Population Studies was organized in 1946. This association (at present known as the Family Planning Association of Puerto Rico) developed an action program with the financial support of the Sunnen Foundation and other U.S. private organizations. During its first three years of existence this group provided birth control means to nearly 30,000 couples and in 1965 about 100,000 were receiving these services. A total of 12,000 sterilization were performed during its first 10 years of operation.

Due to the fact that the financial support from the Sunnen Foundation was coming to an end, in 1965 the Family Planning Association obtained funds from the Office of Economic Opportunities of the U.S. government. At present it is offering birth control services in 60 of the 76 municipalities of the Island. The services for the other 16 municipalities of the northeastern region have been in charge of the School of Medicine of Puerto Rico with the cooperation of the Department of Health since 1964^{1/}.

Neither the Family Planning Association nor the group from the School of Medicine sponsor at present sterilization as a method of birth control;

^{1/} For a more complete history of family planning in Puerto Rico see J.A. Alvarado and K.C. Earnhardt, "Family Planning Movement in Puerto Rico", paper presented in the First Conference of Family Planning in the Caribbean, Barbados, 1967.

they depend heavily upon the oral pill and the intrauterine devices. At the same time many of the Municipal Hospitals where a great proportion of sterilizations were performed in the past, have been transferred to the Department of Health.

It is the general opinion in Puerto Rico that sterilization as a method of birth control has an insignificant role in the family planning programs. Limited information, however, is available about its practice among private physicians and in private hospitals.

PREVIOUS RESEARCH

During the last decades several surveys and other sociological, psychological, economic and demographic studies have been carried out in order to analyze the incidence of birth control practices and the attitudes of the people toward these issues.

In 1939, Gilbert Beebe, of the National Committee of Maternal Health of New York and José Belaval, of the School of Tropical Medicine of Puerto Rico, analyzed the data obtained from a group of families clients of the clinics of the Maternal and Child Association of Puerto Rico. These were low income families, with high fertility and seeking family planning advice. One third of these couples had previously practiced birth control. In 90% of the cases the preferred methods were coitus interruptus, condom and irrigation^{1/}.

In 1947-1948 Paul K. Hatt directed a research study regarding the social and socio-psychological factors affecting the level of fertility in

^{1/}G.W. Beebe and J.S. Belaval, Contraception and Fertility in Puerto Rico, Columbia University Press, 1942.

Puerto Rico. In this study 13,272 adults, 15 years of age or more, coming from all social strata were interviewed (6,187 were men and 7,085 were women). According to this study 6.5% of the women had been sterilized. More sterilized women were found in the upper class, urban zones and legal unions than in their counterparts. Of the sterilized women 60% had 4 or more children. Of the group, 73% expressed satisfaction with the sterilization stating that they would do it again, while 27% would not ^{1/}.

Emilio Cofresí directed a study in 1948-49 in which 2,125 married women attending the venereal, tuberculosis, prenatal and postnatal clinics of the Department of Health of Puerto Rico were interviewed in relation to birth control practices. The study found that around 34% of the women were using or had used at least one contraceptive method. Of these, 47% used condoms, 11% the diaphragm and 20.4 were sterilized. The condom and the sterilization were more common in low income than in high income families ^{2/}.

Between 1951 and 1955, Hill, Stycos and Back carried out a field study about the Family in Puerto Rico sponsored by the universities of Puerto Rico and North Carolina. In the pilot study Stycos found that all couples knew about some contraceptive method and, with the exception of three, all of them knew about sterilization. Over 70% had used, at one time or another, some kind of contraceptive method and 28% of the women were sterilized at the time of the interview ^{3/}. Similar results were obtained in the survey

^{1/} Paul Hatt, Backgrounds of Human Fertility in Puerto Rico, Princeton University Press, 1952.

^{2/} Emilio Cofresí, Realidad Poblacional de Puerto Rico, San Juan, Puerto Rico, 1951.

^{3/} J. M. Stycos, Familia y Fecundidad en Puerto Rico, Fondo de Cultura Económica, Méjico, 1958.

designed to test the hypotheses developed in the pilot study. Among the women included in this study 85% knew about the sterilization and the same proportion about the condom. The percentage of sterilized women was estimated in 20.6% for those attending the health units and in 16.5% for all married women. The authors found that although sterilization was a well known method, it was used too late; when there were already too many children in the family ^{1/}.

In 1962 a sample of 519 women sterilized through auspices of the Family Planning Association of Puerto Rico was interviewed. The purpose of this study was to obtain information about the medical, social and psychological sequelae of sterilization. The data obtained in this survey showed that by the time they were admitted to the clinics over 80% of the women knew at least one birth control method and 51% had used them. The most common methods were the condom, the jelly, the oral pill and the diaphragm. As in the study of Hill, Stycos and Back, sterilization was performed when there were too many children in the family.

Regarding the medical, social and psychological sequelae of sterilization the authors didn't find significant complications. As reported by the women, only 4% had infected wounds, 1% hemorrhage and 3% other minor complications after the surgical intervention. Apparently very little change occurred in the sexual behavior and in the marital relations of the couples as a result of the sterilization. The great majority (94%) of the women

^{1/}R. Hill, J. M. Stycos and K. Back, The Family and Population Control, The University of North Carolina Press, 1959.

expressed satisfaction with the method ^{1/}.

In 1965 the master sample utilized by the Department of Health to obtain morbidity and other health data ^{2/} was used to study the possible relationship between certain types of cancer and sterilization. The sample consisted of 1,165 ever-married women 20-49 years of age. Although the final results of this study have not been published, some preliminary findings about the items related to sterilization are available. According to these findings 33% of the women of urban residence and 29.8% of the women of rural residence had been sterilized. The incidence of sterilization increases with age and is higher for presently married women than for other ever-married. There is evidence of a positive correlation between education and sterilization although in the group with the higher educational level the percentage of sterilized women declines. It is conceivable that women having completed secondary education or more and who have greater access to knowledge, prefer modern methods (oral pills and IUD) instead of sterilization. This relationship could also be interpreted as a function of age; that is, the most educated women being the youngest ^{3/}.

The historical trend of sterilization in Puerto Rico can be summarized as follows: In 1939, just after the law legalizing birth control means was approved, Beebe and Belaval did not register sterilization among the contraceptive methods in use. For this reason we can infer that the incidence of

^{1/}M. Paniagua, et. al., "Medical and Psychological Sequelae of Sterilization of Women", American Journal of Obstetrics and Gynecology, Vol. 90, Number 4, 421-430.

^{2/}Research Unit, Department of Health of Puerto Rico, Master Sample Survey of Health and Welfare, July 1967.

^{3/}Unpublished data, Research Unit, Department of Health of Puerto Rico.

sterilization was still insignificant. In 1947-1948 Hatt found that 6.5% of all adult women (15 years or more) of the Island were sterilized. A year later Cofresí estimated that 20.4% of his sample of married women, that can be located in the low socio-economic strata, had been operated. In a pilot study carried out by Stycos in 1951 the percentage of sterilized women amounted to 28% but the sample was far from having national representativeness. Hill, Stycos and Back estimated that 20.6% of the women in the Public Health Units Sample were sterilized, while only 16.5% were found to be sterilized in the island-wide sample. Finally, an estimate based on the master sample of the Department of Health indicated that in 1965 approximately 30% of all married women were sterilized.

Taking into account the problems of comparability and representativeness these data strongly suggest that, in spite of the slow down in the government birth control activities, sterilization continued increasing, contrary to what could be the logical expectation. A decline in the incidence of sterilization could also be expected in recent years as a result of the mass utilization of the oral pill and the intrauterine devices.

In view of the contradictory nature of the above discussed findings relating to sterilization, the Section of Demographic Studies of the Department of Preventive Medicine and Public Health of the School of Medicine of Puerto Rico proposes a research project that will attempt to clarify some of these questions. In addition, the study will explore other relevant aspects of the problem.

It is a well known fact that Puerto Rico is the country with the highest prevalence of female sterilization in the world. For this reason the findings

of the proposed research will be of great significance for other countries which are at present trying to promote sterilization as a birth control method.

OBJECTIVES OF THE RESEARCH PROJECT

Briefly the objectives of the proposed research project are the following:

- 1- To determine the incidence of sterilization in Puerto Rico and its trend during the last years.
- 2- To investigate the urban-rural and geographical distributions of sterilization in the Island.
- 3- To investigate the incidence of sterilization in government and in private institutions, and to determine the average cost when performed by private physicians.
- 4- To explore the determinant factors of sterilization. What induces women to control fertility by this method? Why do they prefer this instead of less drastic methods? How does parity and number of married years influence sterilization?
- 5- To determine the socio-economic and psycho-social differences between sterilized and non-sterilized women. Among the variables to be considered are the following: educational level, economic activity, housing conditions, pregnancy history, etc., also women's attitudes such as: religiousness, tendency to change, ideal family size, perception of life conditions, aspirations for the children, etc.
- 6- To analyze the possible effect of sterilization upon fertility in Puerto Rico. Previous studies showed that sterilization had

little effect upon the fertility level because it was done after having too many children. The data obtained through the Master Sample of the Department of Health suggest some important changes in this respect.

- 7- To explore some psycho-social effects of sterilization, such as changes regarding the sexual relations including frequency, degree of satisfaction, amount of interest and changes in the personal relationships of the couples, etc.
- 8- To determine how the pattern of birth control practices in Puerto Rico has changed as a result of the introduction of the new methods, oral pill and IUD.

POPULATION AND SAMPLE

The population subject to study will be all ever married women 15 years of age and over (including consensual unions).

The Research Section of the Department of Health of Puerto Rico carry out a quarterly survey known as Master Sample Survey of Health and Welfare and its purpose is to obtain information about the prevalence of acute and chronic conditions in the Puerto Rican population and on medical care received^{1/}. This survey is based on an area multistage stratified sample that covers approximately 750 households quarterly. Furthermore, this survey is so designed that permits the publication of quarterly and annual statistics, based on the 750 households and the cumulative sum of the interviews done in four successive quarters.

^{1/}Research Unit, Department of Health of Puerto Rico, Master Sample Survey of Health and Welfare, July, 1967.

The study on "Incidence, Determinants and Implications of Sterilization in Puerto Rico", will be carried out utilizing the profitable existence of this Master Sample Survey.

To obtain the maximum validity and representativeness the proposed study will cover 3,000 households.

For this purpose the proposed study will utilize the household's lists of four quarterly surveys of the Department of Health. In this way information will be obtained for approximately 2,000 legally and consensually married women 15 years of age and over. This total will include approximately 1,800 women in the reproductive ages (15-44 years) of whom more than 500 are expected to be sterilized ^{1/}.

^{1/} Estimates based in the 1960 Census.