GYNECOLOGICAL CASE-FINDING IN MATERNAL HEALTH CLINICS

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WITHIN recent years there has been a concerted drive on the part of the medical profession and public health agencies to effect a reduction in maternal mortality and morbidity. One agency that has received increasing recognition as a potential force in that drive has been the maternal health clinic. In stressing the value of child-spacing and the prevention of pregnancy when it is hazardous to the life and health of the mother, insufficient attention has been paid to another aspect of the services of the maternal health clinic in reducing maternal morbidity. Every woman given a contraceptive device in such a clinic has a pelvic examination. This procedure offers a unique opportunity for the detection of early pelvic pathology and permits patients to be referred for treatment before more serious pathology develops. Some indication of the types and extent of pelvic pathology found among patients of maternal health clinics can be derived from the study of detailed gynecological records of patients from two clinics in different sections of the United States.

In 1935, the Milbank Memorial Fund assisted the Spartanburg County (South Carolina) Health Department in setting up and evaluating a maternal health clinic in the Spartanburg General Hospital. The Maternal Health Clinic is an intramural clinic which accepts only patients who have been referred from other inpatient or outpatient services within the hospital, or who, if referred through sources outside the hospital, have first been examined in the medical clinic. The record of each maternal health clinic patient includes a digest of the medical history and diagnosis, a complete pelvic examination, and reports on a blood test for syphilis, a urine analysis, and cervical and urethral smears.

[1] From the Milbank Memorial Fund.

The clinic serves both white and Negro patients. Fifty-four per cent of the first 990 patients were white women, and the remainder were Negroes. In both the white and Negro groups, more than 60 per cent of the husbands were usually engaged in manual labor, in cotton mills or other industries in the County. Those remaining came from the rural sections of the County and were engaged in farming, usually as tenants or sharecroppers.

The white group came from a very low economic level. About 20 per cent of the urban families and 12 per cent of the farm families were on relief or were being supported by relatives when they first attended the clinic. The median income for nonrelief white families in the urban group was about $13 per week, or a little more than $650 per year. The cash income of the white rural families was practically nonexistent. Over 70 per cent of them had no cash income at all, and the mean for the entire group was about $2 per week.

The economic level of the Negro urban families was even lower than that of the white families. About one-fourth of them were on relief or were supported by relatives. The median urban nonrelief income was about $8 per week, or less than $450 per year. The rural Negro families appear to have been slightly better off than the white farm families, doubtless because some of the Negro wives worked as servants or took in laundry. Sixty-two per cent of the Negro farm families had no cash income, and the mean cash income for the group was $2.60 per week.

Most of the women sent to the contraceptive clinic were referred because of serious medical conditions or poor general health, or because they were having pregnancies too frequently for their own and their families' welfare (Table 1). About 5 per cent of them were referred because of pelvic conditions contraindicating pregnancy.

Women with sterilizing pathology were automatically excluded from the group since, with few exceptions, only overtly fertile wo-

Main Reason for Advising Contraception	White Women	Negro Women
Total Number of Women Advised[1]	532	455
	per cent advised for each reason	
Total	100.1	100.0
Child Spacing Only	19.0	16.3
Tuberculosis or Tuberculosis Contact	4.9	1.5
Syphilis or Syphilis Contact	4.5	25.1
Cardiac or Vascular Disease	4.7	6.8
Pyelitis, Nephritis, or Previous Toxemia	10.7	6.8
Pellagra	5.1	0.4
Anemia or General Debility	32.7	27.7
Tumor	0.9	0.9
Diseases of Endocrine Origin[2]	3.4	2.2
Diseases of the Pelvis Other than Tumor	5.3	5.3
Neurological or Psychiatric Disease	2.1	0.2
All Other Reasons[3]	6.8	6.8
Child Spacing in Addition to Health	68.0	63.5

[1] Neither the medical diagnosis nor the reason for advising contraception was noted on the records of one white and two Negro women.

[2] Mainly diabetes and thyroid disease.

[3] Includes arthritis, diseases of the gastrointestinal tract other than tumor, varicose veins, phlebitis, nontuberculous diseases of the respiratory tract, obesity, dental caries, and infected tonsils.

Table 1. Distribution of reasons for advising contraception for patients of the Spartanburg Maternal Health Clinic.

men were referred to the contraceptive clinic. The exclusion of these cases suggests that the prevalence of severe pelvic infection and of other types of pelvic pathology tending to reduce fertility may be lower in this group than in a group differently selected. On the other hand, the prevalence of the types of pathology associated with frequent childbearing may be high because the clinic patients exhibited an extraordinarily high fertility.[2]

The prevalence of pelvic pathology was similar for the white and Negro groups. Some degree of perineal laceration was observed for

[2] The average length of marriage of both white and Negro women when they were examined at the clinic was less than ten years, and the average number of pregnancies per woman, standardized for age, was 5.3 for white women and 6.2 for Negro women. The mean number of children under five was more than twice as high for white women and more than three times as high for Negro women as the rates computed for whites and for Negroes in the County, from the 1930 Census returns.

90 per cent of the white women and approximately the same proportion of the Negro women, and about 80 per cent had cystocele or rectocele, or both (Table 2). It is doubtful whether operation for laceration or for relaxation of the pelvic floor would have been advisable in most of these cases, since contraception was little used

Table 2. Prevalence of pelvic pathology and venereal disease among patients of the Spartanburg Maternal Health Clinic.

Type of Pathology	White Women		Negro Women	
Number of Women Examined[1]	531		456	
	per cent of total with each type of finding			
Perineal Laceration	90.0		90.5	
Discharge	89.2		93.7	
Purulent		3.6		3.8
Bloody		1.7		2.9
Mucoid[2]		83.9		87.0
Cystocele and/or Rectocele	79.3		81.6	
Cervical Laceration	91.2		91.5	
Laceration ± Erosion and/or Eversion		72.2		75.4
Laceration + Inflammation		19.0		16.1
Malposition of Uterus	63.3		58.8	
Prolapse		0.6		0.5
Retroflexion		36.6		37.2
Retroversion ± Retroflexion		26.1		22.1
Pain and/or Tenderness in One or Both Tubes[3]	6.6		7.2	
Pain and/or Tenderness in One or Both Ovaries[3]	6.8		7.5	
Smear Positive for Gonorrhea	3.3		4.7	
Smear Doubtful for Gonorrhea	1.0		2.3	
Wassermann and/or Kahn Test +++ or ++++	4.4		25.1	
Wassermann and/or Kahn Test + or ++	2.4		6.4	

[1] There were only 525 complete pelvic examinations made on white women and 443 on Negro women, since in some cases one section or another of the record form was overlooked, and in others the uterus could not be palpated because of obesity. In each instance the proportion of defects noted was based on the known number of examinations of the organ under consideration.

[2] Or type not specified.

[3] The tubes and ovaries were palpable in only 23 per cent of the white cases and in 14 per cent of the Negro cases. The per cents of ovaries and tubes found to be tender and/or painful are based on the total number of women who had pelvic examinations.

and succeeding confinements would tend to break down any repairs made. Patients most seriously in need of them were referred for repair operations after they received contraceptive advice.

Laceration of the cervix was present in more than 91 per cent of the cases in both the white and Negro groups. Nineteen per cent of the white patients and 16 per cent of the Negroes had associated cervical inflammation. Many gynecologists have thought that chronic cervicitis offers a fertile field for the development of carcinoma of the cervix, and recently the American Society for the Control of Cancer has undertaken a study involving biennial pelvic examinations of 1,000 presumably healthy women, designed to show that carcinoma can be prevented by early treatment of this type of lesion.[3] If this hypothesis is supported by the findings, the care of the cervicitis cases discovered in the Spartanburg Clinic is in itself an invaluable health service.

About 60 per cent of the patients had some degree of malposition of the uterus. The types most frequently found were retroversion and retroflexion. In most instances the malposition was not marked, but a few patients were definitely in need of corrective procedures.

Approximately 7 per cent of the women examined had adnexal pain and/or tenderness, a finding suggestive of chronic pelvic inflammation. Salpingectomies were subsequently performed on four of the white women who showed evidence of adnexal inflammation, and four others had sterilizing pelvic operations which did not involve removal of the tubes or ovaries.

Positive smears for gonorrhea were obtained in 5 per cent of the Negro and 3 per cent of the white cases. An additional 2 per cent of the smears of the Negro women and 1 per cent of the smears of the white women were considered doubtful. These percentages prob-

[3] Macfarlane, Catharine: An Experiment in Cancer Control. *National Bulletin of the American Society for the Control of Cancer,* November, 1939, 21, No. 11, pp. 6-8.

In the first 1,000 examinations in this series, 22 per cent of the women examined were found to have laceration and/or inflammation or erosion of the cervix and were referred for care. Of these, three women were found on biopsy to have early unsuspected carcinoma of the cervix.

ably indicate the prevalence of relatively fresh gonorrheal infection in the Negro and white groups.

Twenty-five per cent of the Negroes, and 4 per cent of the white women had strongly positive Wassermann or Kahn reactions. An additional 6 per cent of the Negroes and 2 per cent of the white women had reactions entered as + or ++. Nineteen per cent of the Negroes with syphilis and 29 per cent of the whites with syphilis were referred for contraceptive advice from the venereal disease clinic. It is possible that a few additional cases, for which the referring agency was listed as "outpatient department," may also have had some treatment for venereal disease, but the majority of cases in both groups were new cases discovered when they came in for contraceptive advice.

Because of the selections in the sample, it is difficult to evaluate these data in terms of a community public health problem. It is possible, however, to assert that among women who did not voluntarily seek gynecological care the prevalence of pathology of all types was high. The detection and treatment of those cases that required medical care was an important contribution of the maternal health clinic to the public health and welfare. The contraceptive clinic may be especially valuable as a case-finding agency among indigent women because it has been very difficult to persuade women in low-income groups to seek medical care for any illness which does not incapacitate them. Women who would not ordinarily make the effort to seek medical care may be sufficiently interested in controlling the size of their families to seek advice on contraception. Once examined in the contraceptive clinic, it becomes possible to persuade many of them to return for the types of medical care found necessary as a result of examination.

Other data, showing the value of the contraceptive clinic as a gynecological case-finding service, were derived from the records of a selected group of patients from the clinics of the Cincinnati Committee on Maternal Health. Complete gynecological records

Social Class	Total Number of Women Receiving Contraceptive Advice	Per Cent of Total	
		Referred to Gynecological Clinic	Attending Gynecological Clinic at Least Once
All Women	1,621	26.7	20.7
Nonrelief Wives of—			
White-Collar Workers	266	20.7	16.2
Manual Workers	951	27.7	21.6
Wives of Relief Recipients	404	28.5	21.5

Table 3. Proportion of patients of each social class attending the clinics of the Cincinnati Committee on Maternal Health, who were referred for gynecological care, and proportion who attended the gynecological clinic.

were available only for those patients referred to the Committee's gynecological clinic. The data are not comparable with those from Spartanburg because of this selection.

The patients of the Cincinnati Maternal Health Clinics were all white women. Most of them were the wives of manual laborers or of relief recipients, but a few were married to white-collar workers. The median annual income of the nonrelief group was about $1,100. Thus, the women were in somewhat better economic circumstances than the patients of the Spartanburg clinic.[4]

About 28 per cent of the wives of manual workers and of relief recipients, and about 21 per cent of the white-collar workers' wives were referred from the contraceptive to the gynecological clinic. About three-fourths of those referred are known to have sought gynecological care at the clinic.[5] Records of complete pelvic examinations were available for slightly more than one-fifth of the women who received contraceptive advice (Table 3).

The findings in these pelvic examinations do not necessarily rep-

[4] For a more detailed description of the patients given contraceptive service, *see* Stix, R. K.: Birth Control in a Midwestern City. Part I. The Milbank Memorial Fund *Quarterly*, January, 1939, xvii, No. 1, pp. 72-74.

[5] A few of the records of women known to have attended the Committee's gynecological clinic were lost. At least eighteen women referred to that clinic are known to have sought treatment elsewhere.

Type of Pathology	Prevalence of Pathology	
Number of Women Examined	308	
	per cent of total with each type of finding	
Perineal Laceration	5.5	
Perineal Scar	3.2	
Discharge	82.2	
Purulent		73.1
Bloody		1.3
Mucoid		7.8
Cystocele and/or Rectocele	9.7	
Cervical Laceration	82.4	
Laceration ± Erosion and/or Eversion		34.7
Laceration + Inflammation		47.7
Malposition of Uterus	24.0	
Retroflexion		12.3
Retroversion ± Retroflexion		11.7
Pain and/or Tenderness in One or Both Tubes	16.9	
Pain and/or Tenderness in One or Both Ovaries	32.1	

Table 4. Prevalence of pelvic pathology among Cincinnati Maternal Health Clinic patients referred for gynecological care.

resent all the pelvic pathology found in the contraceptive clinic, but only the types of pathology amenable to outpatient treatment. The patients appear to have been referred mainly for the care of inflammatory diseases of the cervix and adnexa. At least fifty-six women with other types of pathology, which could be corrected only by operation or which required special diagnostic procedures, were referred directly to hospitals for further diagnosis and treatment. A few, who could afford the services of a private physician, were sent to private physicians for care.[6]

The most significant types of pathology found on pelvic examination at the gynecological clinic are shown in Table 4. Cystocele or rectocele, or both, were found in about 10 per cent of the cases ex-

[6] These probably constituted less than 1 per cent of the group given contraceptive advice.

amined; perineal laceration was present in about 5 per cent, and in 3 per cent more the presence of scars showed that there had been perineal repair. About 12 per cent had some degree of retroversion of the uterus.

Some form of discharge was seen in 82 per cent of the cases; in 73 per cent it was purulent, and in most of the remainder mucoid. Eighty-two per cent of the women who were referred for gynecological care had laceration of the cervix, and in nearly 60 per cent of the cases showing laceration there was associated cervical inflammation. Only about 4 per cent of the cases examined showed inflammation without laceration. There was tenderness or pain in one or both tubes in 17 per cent of all cases. In nearly a third, pain or tenderness was reported for one or both ovaries.

Nearly 30 per cent of all the maternal health clinic patients were found to be in need of gynecological care, and slightly less than one-fourth of all patients given the routine pelvic examination in the contraceptive clinic made some attempt to have the conditions found corrected. These figures show, as do the findings for the Spartanburg patients, that the importance of the contraceptive clinic as a gynecological case-finding agency should not be underestimated. Actually, it is one of the few agencies providing the annual pelvic examination so frequently recommended by physicians interested in the prevention of gynecological morbidity.

In conclusion, data presented to show prevalence of pelvic pathology in two groups of women referred for contraceptive advice indicate that a considerable number were in need of gynecological treatment and operative procedures. The findings point to the importance of the contraceptive clinic as a case-finding and referral agency for women with pelvic pathology. The early detection and treatment of the types of pathology found in the two groups studied doubtless prevented the later development of more serious gynecological conditions, and constituted a real contribution to the health of the communities in which the two clinics operated.