MATERNITY NURSING

A TEXTBOOK FOR PRACTICAL NURSES

THIRD EDITION

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PREFACE

Considering that our United States population is expected to increase from the present 200 million to 300 million by the year 2000, those of us engaged in maternity nursing can hardly take a back seat during the next 30 years. We must have sufficient education to recognize and understand needed changes and significant clinical and technical information. To this purpose, the first chapter of this book discusses the needs and trends of maternity nursing in the 1970 s. We increasingly recognize that, to be effective, all obstetric team members must be cognizant of the significant developments in genetics, chemistry, surgery, and medicine as they are being applied to obstetrics. For this reason, the data on studies in nutrition, new techniques to improve the health and save the life of the newborn, and measures to protect the well-being of the mother have been incorporated in this revision.

The practical nurse is more and more becoming a stable bedside nurse. To function at the required level of competence, she needs background and practical information. Inasmuch as a large part of maternity nursing ideally involves teaching, the sections on nutrition, health care, exercises during pregnancy, breathing techniques during labor, and family planning have been entirely rewritten to furnish the latest views and techniques for the practical nurse to use in her daily contact with patients. Theory, technical procedures, and nursing care applications have been updated wherever new developments have come about. Emergency delivery by the nurse has been added. Discussions of the unwed mother and of the mother faced with death or malformation of the newborn have been included.

The number of illustrations has been more than doubled, and a considerable number of these show nursing techniques in action.

The rewriting of this text would not have been possible without the contributions of students, nurses, and physicians and the forbearance of my husband and daughter. In particular, I should like to

take this opportunity to express my sincere thanks to Mrs. Ann Lee Zercher, Director of Nursing, Louis A. Weiss Memorial Hospital; to Phyllis Jones, maternity nursing supervisor, Louis A. Weiss Memorial Hospital; and to Dr. Carl Jarolim, attending and consulting obstetrician-gynecologist, Louis A. Weiss Memorial Hospital, without whose help the new illustrations for this text would not have been possible.

Chicago, Illinois

Inge J. Bleier

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FACTS OF HUMAN REPRODUCTION

CHAPTER

1

Maternity Care in the 1970s

Today the hazards of pregnancy have been diminished to the point where it is unusual for a woman to die during childbirth. This was not the situation at the turn of the century. Yet it is no longer just enough to be born alive; a child must be born with the greatest mental and physical potential.

Therein lies the challenge of the 1970s: as medical discoveries unravel the causes of maternal and fetal pathologic conditions, corrective techniques are sought and applied. The emphasis in the present decade is upon improved quality in human reproduction. To achieve this goal, not only the physical but the cultural, economic, and mental conditions need to be taken into account.

Considering the nation as a whole, aside from our larger cities, our neonatal mortality rate has dropped from about 100 per 1000 births in 1920 to about 20 per 1000 births today. But the improvement is decelerating. During the last ten years it has become nearly negligible. In 1968 nine of the ten largest cities had infant mortality rates that exceeded the national average. Furthermore, when we analyze the rate, we see that it is an average made up of great variations above and below the line. Among our non-white population, for example, the rate is still over 40. The decline in this rate among the non-white population was steady, yet over the years it has not been of such magnitude as to significantly narrow the gap between the white and non-white.

Sociologists and economists view the subject of infant mortality largely in terms of the family's economic status. It is all the more important to point out that in Scotland, where adequate prenatal care is provided for everyone, the gap in the rate of infant mortality between high and low socioeconomic classes is reported to be continuously growing. Apparently, even when maternity care of good

quality is provided, factors such as rapidly succeeding pregnancies, bad nutrition, poor hygiene, and family conditions in general affect infant mortality rates. Hence the answer lies in raising the standard of living of the underprivileged, the underfed, the underhoused, and the undereducated so that this group becomes assimilated into the large middle class of our social economy. Seven to eight months of optimum antepartal care cannot remedy the neglect of a lifetime preceding it.

The work to improve childbearing is a team responsibility; no professional can work alone today. The future team ought not to consist only of medical and nursing members, social workers, nutritionists, health educators, and homemakers, but also of school administrators and teachers and—very importantly—businessmen and politicians in city hall.

We may have some trouble understanding one another and trusting one another. In our education most of us are being taught to see and to consider important only the things we are being prepared to do. We are becoming locked into the viewpoint of our particular specialties. There is practically no problem of any consequence anymore that can be dealt with effectively by any of us who work alone. There is much talk and some practice of what is called the multidisciplinary approach to problems these days. But the fact that members of several disciplines are brought together does not necessarily mean very much. Many times they work together as two-year-olds play with one another. It is really parallel work rather than any real communication or learning from one another. Our vocational and professional schools must start teaching us to work together at least at the six-year-old play level!

THE REASONS SOME MOTHERS DO NOT SEEK CARE

The National Urban League and the Family Service Association of America have jointly studied why parents of children in Head Start programs did not utilize antepartal and postpartal clinic services that are available or why they dropped out of these services.

The study found the following reasons:

1. Lack of understanding of the worth and value of the services
2. The condescending reception that they received at the hospital and the amount of waiting time required
3. Lack of appropriate clothing
4. Lack of baby-sitting services in the neighborhood
5. Lack of money for transportation

6. If employed, unable to take time off during clinic hours without risk of losing job

7. In some states maternity patients under the age of 21 are minors and parental consent is needed for medical procedures unless the patient has a marriage certificate

8. Inability to meet some hospitals' requirement to have one or two pints of blood deposited in the blood bank upon admission to the clinic

9. Seeking care too late—some clinics will not admit patients who apply in the third trimester

10. Cultural differences which express themselves in fear of authority; fear of doctors, nurses, and social workers; fear of hospitals; and preoccupation with living from day to day

Some communities have taken steps to make antepartal care more appealing to the patient. They have attractively furnished waiting and examining rooms; they have recruited women from the patients' community to approach patients about the services of the clinic and have trained them to do some of the teaching; they have added evening clinic hours for the use of working patients; they provide money for transportation or have special buses servicing the involved geographic areas; and they are providing a supervised playroom so that mothers can bring their children and need not be worried about them. Some antepartal clinics have been opened in public housing projects or nearby to make them available to patients. Some clinics offer needy patients complete free care with no strings attached. Such free care includes physicians' services, medicines, laboratory work, x-rays, and—when necessary—antepartal hospitalization.

There is no reason why these services are not extended to all patients in need of them with the additional improvements indicated. To get the patient to come to the clinic we should introduce an educational program on television on the order of Sesame Street, the program devised for preschoolers. The vast wasteland of television is watched by the patients we are trying to reach, because it is almost the only form of entertainment available to them. In this way, we would teach people that prenatal care and family planning are their rights and something they ought to seek. Such programs could be geared to children or adults, preferably both.

INCREASED BIRTHRATE

In the U.S. the number of childbearing women continues to increase. In 1968 it was 37.8 million, and the projected figure for 1975 is 46.5 million women between the ages of 15 and 44. The

number of births increases continuously, and 5.6 million births are anticipated in 1975.

MIDWIVES

The people in most of the countries in the world depend mostly on midwives to deliver their babies, and in many nations the majority of births occur in the home. In the U.S. in 1968, 98.7 per cent of all live births took place in a hospital under the direction of a physician. Ten years previously, 91 per cent of the babies were born in a hospital with a physician present, 5.2 per cent were attended by a physician outside the hospital, and 4.7 per cent were attended by a midwife or were unattended. In 1968, the number of cases in which prenatal care had begun by the end of the second month was 55 per cent. Ten years earlier it was 41 per cent.

Medical services in the U.S. are in the process of active change, and experimental programs are being tested to improve the prenatal and maternity care situation. For example, although the midwife has practically disappeared from the American scene, having been replaced to some extent by the highly trained hospital or visiting nurse, several universities are now offering graduate training programs for midwives. And it is to be expected that this trend will continue upward.

In New York City alone, in 1968, one of 70 patients in municipal hospitals was delivered by midwives. In certain parts of the Kentucky mountains, patients without complications are exclusively attended by midwives.

It is probably safe to predict that in the decade to come nurse-midwives will be recruited and trained to increase the needed obstetric manpower. Their function will be in the field of normal, uncomplicated prenatal care, labor, and postpartal care. They will have something unique to offer in terms of personal health services: a combination of clinical competence, sensitivity to the needs of the patient, a social and family orientation, and, above all, the time to bring these qualities to bear in a warm and personal way.

Additional improved maternity care should also be feasible through the use of microfilms of charts, which, by means of computers, make a patient's total medical history available.

CHAPTER

2

Anatomy of the Female Reproductive Organs and Pelvis

The special structures that have evolved in the human female for the purpose of procreation are known as the female reproductive organs. They may be divided into two groups: the external genitalia and the internal reproductive organs. These organs are located in and below the bony pelvis.

THE EXTERNAL GENITALIA

The external genital organs consist of the mons pubis, covered with pubic hair; two paired folds, the labia majora and labia minora, which surround a space called the vestibule; the opening of the vagina; the sensitive clitoris; and glandular structures (Figure 1). Collectively known as the vulva, these structures lie in an area called the perineum, which extends from the pubic bones in front to the tip of the coccyx behind and which is bounded on each side by the inner aspect of the thighs. The anus is located in the posterior part of the perineum—in fact the word "perineum" means "around the anus."

Mons Pubis

The mons pubis is a rounded eminence in front of the junction between the two pubic bones of the pelvis. It is composed of fatty tissue lying beneath the skin and, from puberty on, is covered with hair.

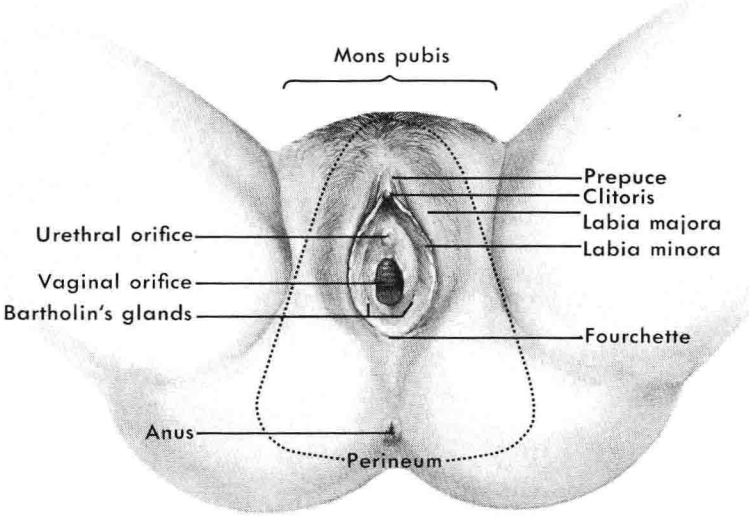

Figure 1. Diagram of the female external genitalia.

Labia Majora and Labia Minora

The labia majora are two folds of skin extending backward and toward the anus, but before reaching that point they merge into the neighboring skin. Covered with hair on the outer aspect, they are smooth on the inner aspect, where the openings of numerous small glands are found. Just inside the labia majora are two smaller folds of skin, the labia minora.

The labia minora extend from the clitoris downward and backward on either side of the opening of the vagina until they pass almost imperceptibly into the labia majora. Together the labia minora and majora blend into a thin fold of skin that forms the anterior edge of the perineum. This thin edge is known as the fourchette.

Clitoris

The clitoris is the female equivalent of the penis of the male. It is a small, sensitive structure composed of erectile tissue, nerves, and blood vessels and covered at its tip with thin skin. The clitoris is so situated that it is partially hidden between the anterior ends of the labia minora.

Vestibule

Between the labia minora is a cleft, called the vestibule, which contains the openings of the urethra and the vagina. At the opening of the vagina is a thin membranous fold, called the hymen, after the Greek god of marriage. In the virgin this fold is perforated at the center, so that it only partially closes the opening of the vagina. After rupture at intercourse, the remnants of the hymen persist as rounded elevations about the opening.

Bartholin's Glands

The two Bartholin's glands, the largest of several vulvovaginal glands, are situated at the base of the labia majora. Their ducts open into the vestibule just outside the lateral margins of the vaginal orifice. These glands secrete mucus for the lubrication of the vulva. Normally these glands are small and not palpable, but they may become swollen and painful when infected.

THE INTERNAL REPRODUCTIVE ORGANS

The internal organs of reproduction are the ovaries, the fallopian tubes, the uterus, and the vagina (see Figure 2).

Ovaries

The ovaries are two small almond-shaped organs located in the upper part of the pelvic cavity, one on either side of the uterus. Their

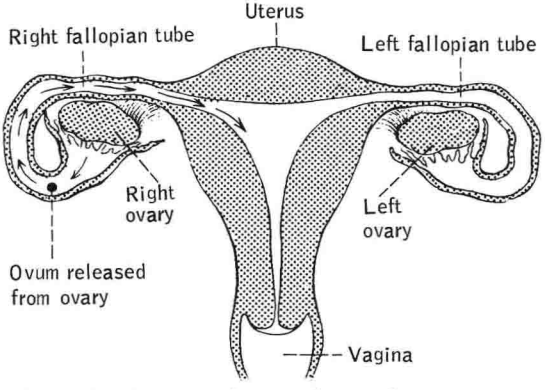

Figure 2. Diagram of internal reproductive organs.