Current Medical Research

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Natural Family Planning

Diocesan Activity Report

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NFP Utilization US 1990

Personal Communication. Linda Peterson, National Center for Health Statistics, Hyattsville, Maryland to be published in *Advance Data*, January 1994.

A select sample of families interviewed in the 1988 National Survey of Family Growth was reinterviewed in 1990. The following tables summarize NFP utilization by women aged 15-44 years.

NFP Utilization US 1990 by women 15-44 years of age

TABLE 1

Total N = 58,381,000; (31% R.C.)
% "Contracepting" - 59.2% of total population

	Total No. Users		% of "Contraceptors"*
Calendar rhythm	798,000	(1.4%)	2.3%
R.C.'s	375,000	(47%)	
Cx mucus and/or temp	180,000	(0.2%)	0.37%
R.C.'s	63,100	(48%)	
TOTAL	**928,000**	**(1.6%)**	2.67% *(All NFP methods)*

* *"Contraceptors" - Those using any method to delay or prevent pregnancy.*

TABLE 2 – NFP Use

Year	
1982	1,100,000
1988	860,000
1990	928,000

TABLE 3

U.S. Population, 1993	256,042,585
R.C.'s in US, 1993	59,220,723
% RC = 23%	
Estimated No. of R.C. women aged 15-44 (1/6 of population)	9,870,120

Clearly the percentage of Catholics using Natural Family Planning is twice that of Catholics in the general population. However, NFP still appears to be a well kept secret. Not only that, but the majority of users are still calendar rhythm users. We are faced with a wealth of opportunity!

Immediate Postplacental Insertion and Fixation of the CuFix Postpartum Implant System. H. Van Kets, et al. *Contraception* 48 (October 1993):349-357.

A new IUD was tested in 1,777 women. The CuFix postpartum implant system consists of six copper sleeves, each 5 mm long, 2.2 mm in outer diameter threaded on a surgical monofilament polypropalene thread. The copper sleeves are held in place by sleeves plus a single knot just below an injection molded cone shaped polycaprolactone body which is actually pushed into the myometrium, usually no more than 10 minutes after delivery of the placenta. Fifty-nine (59) women continued to wear the device for 12 months, 47 until 18 months. Pregnancy (unplanned) rate was 1.5%. Expulsion was 3.1% at both 12 and 18 months. Removal for bleeding or pain was 7.4% at 12 months; 12.8% at 18 months. Removals for planned pregnancy were 9% and 12.2% respectively with a continuation rate of 80.4% at 12 months and 74.7% at 18 months. Removals were difficult in 4 cases and "quite" some force was needed to dislodge the anchor. Usually the string which is in the cervix is cut at the end of the insertion. However, the authors now plan to cut these strings more highly for use in developing countries. *[How these devices would then be removed is left to the reader's conjecture. Ed.]*

A Preliminary Report of Norplant Implant Insertions in a Large Urban Family Planning Program. U.D. Crosby, et al. *Contraception* 48 (October 1993): 359-366.

Between August 1991 and April 30, 1993, 43% of 2,358 women who received Norplant system insertions at Parkland Memorial Hospital or the Dallas Maternal Health and Family Planning Clinics for Teenagers, only 5.8% were removed by June 1993 for reasons of high incidence of pain in the implant site, hair loss, and mood changes. This system is considered highly effective for indigent women and is accepted as readily by adolescents as by more mature adults when it is accompanied by intense individual counseling. *[Since the duration of implant use in the study varied between nearly 2 years to less than 1 month, one would expect a higher complication and removal rate had the study been followed uniformly. Ed.]*

Ectopic Pregnancy. (Review Article) S.A. Carson & J.E. Buster. *New England Journal of Medicine* 329:16 (October 14, 1993): 1174-1181.

The University of Tennessee Department of Obstetrics and Gynecology has developed an algorithm to rule out ectopic pregnancy when pregnancy is first diagnosed. The incidence of ectopic pregnancy has increased remarkably while the seriousness of the disease has changed with early diagnosis, laparoscopy has replaced open surgery, and non-surgical treatment has become an option in selected cases. A serum progesterone level is performed at the same time as a pregnancy test. If the serum progesterone is > 25 ng/ml or the beta hCG > 100,000 mIU/ml, a viable intrauterine pregnancy is diagnosed and no further testing is necessary. If progesterone is > 5 but < 25 ng/ml, vaginal ultrasound is performed. If an ectopic pregnancy is found and the sac is < 4 cm in diameter and no cardiac activity is found, methotrexate is given per oral regimen and hCG levels are followed according to protocol. If the sac is > 4 cm, surgical management usually via laparoscopy is indicated. Direct visualization of the pregnancy through the laparoscope had been the diagnostic standard for ectopic pregnancy, but it is possible to miss a pregnancy when it is early and the gestational sac is small. Thus the single measurement of serum progesterone and serial measurements of beta sub-unit of human chorionic gonadotropin with indicated ultrasonagraphy and possible uterine curettage were sufficient in many cases to permit treatment. Curettage could confirm the presence of a spontaneous abortion when no ectopic gestation had been found and HcG levels were falling. *[Some time ago, we reported the successful transfer by Shettles of a viable ectopic pregnancy into the uterus. It should be pointed out that the cervical canal will seldom allow an instrument of greater than 0.7 cm to be inserted without dilating the canal. Thus it would be necessary to discover the gestational sac approximately at the time of the first missed period for successful transfer. If it is necessary to dilate the cervix, uterine contractions are stimulated and the pregnancy is expelled. Transfer directly into the uterus would involve open surgery which in turn would raise many other risks and increase the likelihood of spontaneous abortion. Ed.]*

Migraine in Women: Recognizing Hormonal Influences. L. Kudrow. *The Female Patient* 18 (October 1993): 33-38.

Migraine headache occurs much more frequently in women, often beginning with menarche and tapering off during menopause. It is associated with estrogen depleted states, such as around the time of ovulation and in the premenstrual phase; biopsies of the endometrium at those times found increased coiling of the spiral arterioles confirming the hypothesis. Estrogen modulates the beta ad-

renergic progesterone and serotonin receptors. Progesterone in turn modulates the effects of estrogen on the receptors.

Stress causes norepinephrine release which, when enhanced by estrogen, causes dilitation of the blood vessels of the head outside the skull. This is the cause of migraine headaches which are often found only on one side of the head. Other stresses are fasting, all of which culminate in release of plasma serotonin which cause the constriction of the cerebral vessels followed by reflex dilitation in response to serotonin depletion. Alcohol is another common trigger. Some headaches are preceded by prodromata such as flashing lights or a blind spot. Other than keeping a diary to identify triggers, the classic drug treatment has been ergot compounds which constrict the dilated vessels. Since ergot compounds may have an abortifacient effect, they must be used with caution and due attention to the woman's menstrual history. Pain relief and relief of the frequently encountered nausea and vomitting is treated in the usual fashion. Sensitive women may also respond to reduced levels of estrogen when taking hormonal replacement therapy if the dose of estrogen is not constant. Recently the drug Sumatriptan has been approved for use. It is an effective vasocon-strictor and a specific serotonin agonist and can therefore counteract the mechanism which produces migraine. Sumatriptan blocks the serotonin receptor. It must be given by injection.Sumatriptan is contraindicated in the presence of coronary artery disease, hypertension, and pregnancy.

Body Composition and Muscle Strength in Healthy Men Receiving Testosterone Enanthate for Contraception. N.R. Young, et al. *Journal of Clinical Endocrinology and Metabolism* 77:4 (October 1993): 1028-1032.

Previous studies of the use of anabolic steroids by athletes had suffered from problems in the study design, such as lack of appropriate controls, lack of measures of athletic performance, inadequate chemical analysis of the binding of the steroid to plasma proteins, etc. This study followed 13 healthy non-ahtletes and 8 healthy male controls in a study of the contraceptive effects of 200 mg testosterone enanthate once a week for six months. The treated subjects had a small increase in fat free body mass and a small decrease of body fat mass (9.6% and 16.2% respectively), a mild increase in muscle strength from -1.6%-19.2%, and a small increase in bone density, -1.3%-5.2%. Serum testosterone increased by 91.1% and testicular volume decreased by 24%, serum osteocalcin increased by 35.7% and serum immunoreactive parathyroid hormone (PTH) increased by 41.4% while serum calcium decreased by 2.3% and serum albumin decreased by 4.5%. The small changes in fat free mass, muscle strength, and bone density do not support the use of androgens for enhancing athletic performance *[while the potential for life threatening complications should be enough to discourage anyone from using it. Ed.]*

Revised Oral Contraceptive Labeling: FDA Approves Recommendation Allowing Delay of Pelvic Exam. *Contraceptive Report* IV:5 (November 1993):4-6.

Based on the recommendation of the Planned Parenthood Federation of America, the Food and Drug Administration's Fertility and Maternal Health Advisory Committee, the FDA voted to allow patients seeking oral contraceptives the option of deferring physical examination without being denied a prescription. According to the guidelines, physical examination may be delayed up to three months. This procedure has been piloted by the Family Planning Council of Southwestern Pennsylvania in Philadelphia since 1986 in order to reach sexually active teenagers who were afraid of pelvic examinations. Of the 390 teens who participated, complete medical records were available on 151 (39%); among these 151, 40 (26%) opted to have a pelvic exam at the initial visit, while 69% of the delayers returned for their pelvic

ERRATUM

The chart on page 8 of the Current Medical Research, Vol.4, No. 3/4, Summer/Fall 1993, should read as follows:

Percent (%) Ovular Menses Postpartum

	Lactating N=55	Non-lactating N=22
> 12 weeks	45%	100%
13-24 wks	67%	
25-48 wks	75%	
49-72 wks	100%	

exams at the three month visit; 78% had returned by six months.

While the theory was to improve access to oral contraceptives and delay the pelvic only if a complete history and blood pressure reading persuaded the practitioner that the delay was acceptable, many others, including Luz Alvarez Martinez, Director of the National Latino Health Organization, wondered whether women would try to defer pelvic exam indefinitely as a result of the new guidelines. She questioned whether women would interpret the new labeling as devaluing the need for pap smears and breast exams. While Planned Parenthood physicians insist on the importance of breast exams, especially in women over 30 and on pregnancy tests if the history warrants, it remains to be seen whether clinic clients will actually avail themselves of the full range of services available to them. *[Given the alarming incidence of HPV infection of the cervix and the high incidence of premalignant and malignant changes, one wonders how often the opportunity for early diagnosis and effective conservative treatment will be lost through patient delay. Ed.]*

Questions?

Do you need further information regarding research reported in this Supplement? Have you a specific question which you'd like to ask the Editor? Please direct your letter to the Editor, ***Current Medical Research,*** *DDP/NFP, 3211 Fourth St., N.E., Washington, D.C. 20017. We look forward to hearing from you.*

Contraception During Breastfeeding. *Contraceptive Report* IV:5 (November 1993):7-11.

A good description of the Lactational Amenorrhea Method is followed by description of complementary family planning methods listed in order: condoms, cervical caps, sponge, and diaphragm, spermicides [which can transfer to maternal blood in minute amounts and can be passed on to breast milk; no adverse effect on infants have been shown], IUDS, periodic abstinence methods, tubal sterilization. Among the hormonal methods, progestine-only oral contraceptives are recommended highly. The "slightly higher" failure rate associated with the mini pill is offset by lower fertility during lactation. The small amount of hormone which passes into the breast milk has no known adverse effect on the infant. Certain progestins provide a modest boost to milk production. After lactation is established, combined oral contraceptives are an option, although the estrogen may reduce the milk supply, but no harm has been shown to come to the infant. Their growth rates were unchanged, presumably because either supplementary feeding or more prolonged and intense suckling episodes compensated for the decreased milk volume. However, OCs should not be considered the first choice method in lactating women. Depot medroxyprogesterone acetate (DMPA) does not suppress milk production. Subdermal implants of Levonorgestrel are implanted immediately postpartum in many countries, but FDA labeling in the US suggests insertion at six weeks after lactation is established. It has not shown any effect on milk production. The World Health Organization estimates that maternal child ("vertical") transmission of the HIV occurs in about one-third of the babies born to HIV infected mothers. Transmission can be in utero during delivery or less often through breastfeeding, but the risk of transmission via breast milk is still unknown. It is thought that transmission is primarily in colustrum, thus perhaps discarding colustrum and then continuing with breastfeeding might be a consideration. It is possible also that human milk factors inhibit the binding of HIV to the CD4 receptor which would actually protect the infant. If safe alternative milk supplies are available, HIV-positive mothers should not be advised to breastfeed their babies. But in certain situations, such as developing countries, there may be no good alternatives.

Antigenic Similarities Between Respiratory and Reproductive Tract Mucins: Heterogeneity of Mucin Expression by Human Endocervix and Endometrium. O.J. D'Cruz, et al. *Fertility and Sterility* 60:6 (December 1993):1011-1019.

Monoclonal antibody techniques have been used to identify subspecies of mucin in the human tracea. Types I-V have been identified. These types were compared with mucins found in the uterus and cervix. Type I was localized in the squamous epithelium of the endocervix and in both the glands and stroma of the endometrium. Neither tissue reacted with Type II. Type III mucin was localized to differentiate its cells of the squamous epithelium of the endocervix and the glandular endometrium. Type IV was specific to endometrium and was localized in both the endometrial glands and stroma but had no reactivity with the endocervix. Type V was expressed in both cervical and endometrial stroma and glands. Refinements of the technique found that monoclonal Antibody 5.1 of Type III was specific to the apical region of secretory phase endometrium,

while Type V specific mAb 54.1, but with the mucus secretion of the glandular lumen of both cervical and uterine endometria leading the authors to postulate future use in differentiating endometrial from endocervical cells immunologically. There may be applications for the diagnosis of endometriosis and reproductive tract cancers since aberrant glycosylation of mucins in the reproductive tract can lead to the production of novel carbohydrates and also exposure of peptide epitopes that are hidden in normal mucins. Monoclonal antibodies can also be used to evaluate the effects of oral or vaginal contraceptives quantitatively on cervical mucus populations. Some of the glycoconjugate structures in the endocervix and endometrium have been identified by lectins. Lectin binding shows changes during the proliferative secretory and/or gestational stages. Clearly, a whole new world of knowledge and investigation is before us.

Use of Fertility Drugs in The United States, 1973 Through 1991. D.K. Wysowski. *Fertility and Sterility* 60:6 (December 1993): 1096-1098.

The 1988 National Survey of Family Growth found an estimated 2.3 million married couples with wives aged 15-44 years who were unable to conceive after 12 months of unprotected intercourse. 1.9 million women of childbearing age had ever used medications to induce ovulation. Between 1973 and 1991, the use of clomiphine citrate, a drug used to induce ovulation had nearly doubled. In 1973 there were 390,000 prescriptions, in 1991 731,000. Since 1984, of the drugs, chorionic gonadotropin, menotropins, and urofollitropins together accounted for no more than one-third of the market share and are also used primarily for the treatment of infertility. The medications were prescribed primarily by obstetrician gynecologists to white females aged 20-39 years of age.

A Prospective Study of Sex Preselection in Ondo, Nigeria, Using the Billings Ovulation Method of Natural Family Planning. L. McSweeney. *Victoria Bulletin,* 20:4 (December 1993): 9-16.

A prospective study of 99 couples who intended to use the Billings Ovulation Method to select the sex of their babies required very careful charting of all acts of intercourse during their conception cycle. In order to qualify, at least one spouse had to be able to read the English instructions, to be able to complete and return the post-conception form shortly after the onset of pregnancy, but certainly prior to delivery. Participants were instructed in the Billings Method and were advised to use only the infertile days until they could easily recognize the mucus with fertile signs and especially the peak day. Those who wished to have a female child were advised that intercourse should take place preferably two days before peak and should then be avoided until the fourth day after peak. They were advised to begin their effort to conceive by using the first day of slipperiness and, in subsequent cycles, to bring the day of intercourse gradually closer to peak. To have a male child, they were instructed to avoid all genital contact until the morning of the second day after peak. If no conception resulted in that cycle, they were to use the night of the first day after peak in the subsequent cycle, and if possible, to repeat the act of intercourse the next morning. Should there be no conception then the couple were instructed to use peak as well as the next day. Ninety-six (96%) of the 81 couples who selected for a male child succeeded while 89.9% of the 18 couples who hoped for a female child were successful. Ninety-three, (94%) of the 99 participant couples succeeded in choosing the sex of their child successfully. The most likely time for conception of the male child appears to be the night of the first day past the peak provided the act is repeated the next morning. Detailed instructions are provided in the article. This study is an expansion of the original study and adds precision to the earlier one. Dr. McSweeney comments that the use of the peak day is ambiguous since a woman cannot be absolutely certain of peak until it has passed. While most women can distinguish peak mucus from seminal discharge, some women are doubtful; hence, those two cases about which there was some question were omitted from the statistics for success for sex preselection.

Confronting the Crisis in Adolescent Health: Visions for Change. A.B. Elster. *Journal of Adolescent Health* 14:7 (November 1993): 505-508.

At a Symposium on improving Adolescent Health: "A Time for Action", presented at the American Public Health Association Meeting, November 1992, in affiliation with the Society for Adolescent Medicine, Arthur B. Elster from the Department of Adolescent Health, American Medical Association, Chicago, proposed that: 1) the nation should develop an adolescent Head Start Program for all youth 11-14 years of age, because this is a time of major transition. Assessment of their physical health as well as social and emotional well-being and academic performance is appropriate at this time. Special needs should be identified and provisions made for meeting them.

Socio-economic status does not correlate well with risks in adolescents since eating disorders, unintended pregnancy, smoking, alcohol, and drug use are not limited to any particular economic, racial or ethnic group. 2) The nation should develop consensus on unambiguous health behavioral goals for each developmental stage of adolescence: "Early adolescence (11-14 years of age); abstinence from sex, drugs, alcohol. Middle adolescence (15-17 years of age); safe use of motor and recreational vehicles; abstinence from alcohol and drugs; safe sex to prevent unintended pregnancy and STDs, including human immunodeficiency virus (HIV infection). Late adolescence (18-21 years of age); safe use of alcohol; abstinence from other drugs, and safe sex." The author sees these goals as developing from a growing consensus. 3) Adolescents must be covered by a universal health system that insures access to health services regardless of age or ability to pay. *[Evidently our Administration has begun to implement these goals. Ed.]*

Effect of Continuous Combined Estrogen and Desogestrel Hormone Replacement Therapy on Serum Lipids and Lipoproteins. M.S. Marsh, et al. *Obstetrics & Gynecology* 83:1 (January 1994): 19-23.

Continuous combined hormone therapy of menopause with 17 beta estradiol and desogestrel was evaluated for its effect on serum lipids and lipoproteins in 57 healthy post-menopausal women less than 60 years of age. They were studied prospectively and treated with desogestrel 0.15 mg per day and micronized 17 beta estradiol 1 mg per day taken continuously. They were evaluated after 6 and 12 months of treatment. Thirty-two (32) women completed the study. Levels of all serum lipids and lipoproteins fell significantly by 6 months and remained low at 12 months when the mean reduction for HDL was 12.8% due largely to a 25.7% drop in HDL_2. The mean reduction for LDLs and triglyceriydes was 7.7% and for lipoproteins 17.6%. The fact that HDL was lowered was unexpected and contradicted findings when similar drugs were used for contraception. This effect is undesirable and may be potentially harmful.

Postmenopausal Hormone Use and Cholecystectomy in a Large Prospective Study. F. Grodstein, et al. *Obstetrics & Gynecology* 83:1 (January 1994): 5-11.

A prospective study of 54,845 postmenopausal US nurses was conducted with follow-up every two years. 1,750 subjects reported both hormone use and cholecystectomy. After adjusting for confounding factors during the 8 years of follow-up, an increased risk of cholecystectomy of 2.1 was found compared with never-users of hormones. For current users, the risk was 2.6. Risk was 2.4 with higher doses of estrogen (1.25 mg or more), while the risk for past hormone users decreased to 1.6 if they had discontinued use between 1 and 2.9 years earlier. With discontinuation of hormone use of 5 years or more, the risk was 1.3. Clearly hormonal use increases the risk of gallstone development and subsequently required cholecystectomy.

Culdoscopic Gamete Tubal Transfer: a New Approach to Gamete Intrafallopian Tubal Transfer. E. Diamond et al. *Fertility & Sterility* 57: 1114-1116.

A variation of achieving successful pregnancy by using the culdoscopic approach to gamete intrafallopian tube transfer is reported. Under epidural anesthesia, ova are obtained from the follicle through a needle introduced through an incision in the vagina. Ova and a semen sample are then transferred into the tube with a Marrs gamete transfer catheter after suitable preparation. Of six clinical pregnancies, five are ongoing while one woman miscarried. Culpotomy is less invasive than the usually performed laparoscopy.

Current Medical Research, a supplement of the **NFP Diocesan Activity Report**, is published quarterly. Hanna Klaus, M.D. is the editor. The purpose of the supplement is to serve the Roman Catholic diocesan NFP programs of the United States through providing them with up-to-date information on research within the field of fertility, family planning, and related issues. The Diocesan NFP teacher should be equipped to understand the various methods of contraception and be able to explain their incompatibility with the practice of the natural methods of family planning.

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