Current Medical Research

Hanna Klaus, M.D.

Natural Family Planning

Diocesan Activity Report

SUPPLEMENT

Vol. 6, No. 2 & 3,
Spring/Summer 1995

NFP Related Research

Drouin, J., & et al. (1994, September). **Contraceptive application of the Bioself fertility indicator.** *Contraception, 50* (3), pp. 229-238.

The Bioself fertility indicator is an electronic device which combines basal body temperature and calendar rhythm. Half of the 83 volunteers were previously NFP users. An unplanned pregnancy rate of 9.2% resulted from conscious use of intercourse without barriers during fertile time. 50.9% of exposure cycles utilized barrier contraception in addition to recognition of the fertile and infertile phases of the cycle as indicated by flashing red or green lights on the Bioself indicator. The discontinuation rate was 32% at 12 months.

Ullah, M.S.,& Chakraborty, N. (1994,October). **The use of modern and traditional methods of fertility control in Bangladesh: a multivariate analysis.** *Contraception, 50* (4), pp. 363-372.

The 1989 Bangladesh Fertility Survey found a 31% contraceptive prevalence; 23% used "modern methods"; 8% traditional methods. Traditional methods are not defined, but presumably embrace calendar rhythm and the Billings Method. In 1975 the level of traditional method use was 3%. In 1979 it was 7.7%, with a further increase at the present survey. Since Government programs advocate only "modern" methods, the authors neither define nor explain the utilization of traditional methods, but suggest that the presence of electricity in the house and the husband's level of education and occupation were statistically significant factors which influence modern vs. traditional contraceptive use. *[The bias of the author is obvious towards controlling population. Ed.]*

Contraceptive Technology and Use

Thomas, D.B., et al., & WHO Collaborative Study of Neoplasia and Steroid Contraceptives. (1995, January). **Cervical carcinoma *in situ* and use of Depot-Medroxy-progesterone Acetate (DMPA).** *Contraception, 51* (1), pp.25-31.

The relationship of Depot-Medroxy-progesterone Acetate (DMPA) to the risk of developing cervical carcinoma in situ was investigated with data from a large multi-national hospital based case control study. Relative to non-users, the risk was evaluated in women who ever used DMPA and increased with duration of use. However, another portion of the study did not show a relationship of invasive cervical cancer developing from DMPA use, suggesting that if there is an increased risk, it is either reversible or that the lesions do not progress to invasive disease.

Fuhrmann, U., et al. (1995, January). **Characterization of the novel progestin gestodene by receptor binding studies and transactivation assays.** *Contraception, 51* (1), pp. 45-52.

Gestodene, a new synthetic progestin is promoted as the successor to the synthetic progestins in oral contraceptives because it lacks the defects of the earlier generations. Specifically, it is alleged not to be deactivated by antibiotics. Gestodene is a 19 nor-testosterone derivative whose pharmacological profile was examined by its ability to bind a variety of steroid hormone receptors. Gestodene does not show affinity to the estrogen receptor, but closely mimics progesterone's action. It has reduced androgenic activity compared with the other 19 nor-testosterone series, but also shows antimineralocorticoid activity.

Schlit, A.F., et al. (1995, January). **Large increase in plasmatic 11-Dehydro-TxB2 levels due to oral contraceptives.** *Contraception, 51* (1), pp. 53-58.

Coagulation factors 11-Dehydro-TxB2 and 6-keto-PGF_{1_α} were examined in 87 women who had been treated for 9 months with oral contraceptives of low doses of estrogens and progesterones. Plasma factors I, II, VII, VIII-c and 11-Dehydro-TxB2 levels increased, but there was no change of 6-keto-PGF_{1_α}. In urine, the FPA concentration rose without a change in 11-Dehydro-TxB2 and 6-keto-PGF_{1_α}. There was no essential difference between the three OC preparations. The data, especially the large increase in 11-Dehydro-TxB2, suggest that a hyper-coagualable state persists in low dosage OCs. *[This may make susceptible women more subject to thrombotic stresses. Ed.]*

Datey, S., et al. (1995, March). **Vaginal bleeding patterns of women using different contraceptive methods (implants, injectables, IUDs, oral pills)—an Indian experience: an ICMR Task Force Study.** *Contraception, 51* (3), pp. 155-165.

The majority of women who discontinue contraception which affects

their menses, do so because of irregular vaginal bleeding. Menstrual diaries of women who used a long acting progestogen-only hormonal contraceptive like nevo-norgestrel, subdermal implant (Norplant), or intrauterine devices with progesterone, injectable NET, or oral contraceptives were compared and evaluated. With Norplant-2 implants, 70-80% of women had irregularities in bleeding during the first year which improved with prolonged use. However, even at 4 years, half the users continued to have irregular patterns. 80% of the 200 mg Neten injectable users had irregular bleeding in the first year without change over time. Combined monthly injectable contraceptives containing 50 mg Neten and 5 mg estradiol valerate caused less bleeding, so that half the users experienced a normal pattern during one year of use. Combined or low dose oral pills, both triphasic and monophasic, produced much better cycle control, affording 90% normal bleeding patterns in one year. The copper IUDs were associated with increased bleeding in 18-20% of women during the initial 3 months of use, but they then experienced improvement. Women with frequent or prolonged bleeding discontinued the contraceptive method more often than those with delayed bleeding or small amounts of bleeding. Women tolerated the Norplant-II longer, perhaps to avoid the additional inconvenience of surgical removal.

ERRATUM

Current Medical Research Winter 1995: **Use Effectiveness of the Creighton Model Ovulation Method of Natural Family Planning**. R.J. Fehring, et al. (May 1994). *Journal of Gynecologic and Neonatal Nursing 23* (4), pp. 303-309, *omitted* the following: When the use effectiveness of the Creighton Model is computed by the standard method of use effectiveness designation, [which are now retermed "perfect" and "imperfect use"] the unplanned pregnancy rate at 12 months is 12.8%.

Buckshee, K., et al. & ICMR Task Force on Hormonal Contraception. (1995, April). **Return of fertility following discontinuation of Norplant®-II subdermal implants**. *Contraception, 51* (4), pp. 237-242.

Six hundred twenty-seven (627) women who had discontinued the use of Norplant-II implants for a variety of reasons were followed for two years to determine return to fertility. Those who discontinued to plan pregnancy experienced conception rates of 80% at the end of one year and 88% at two years. Ninety percent (90%) of women had normal full-term live births; 4% had spontaneous abortions, while 6 decided on elective termination of pregnancy. The accumulative conception rates of women who had discontinued due to bleeding irregularities and other reasons were 64.5 and 55.8%/100 women at one year and 77.9 and 75.1/100 women for two years. These rates were lower than for those who discontinued due to planning pregnancies. Spontaneous abortion rates - 1.7-4.4% - were comparable to the rates of 3.6% prior to the use of the implant. The only interesting trend was a delay in the return to fertility in women who were over 30 years of age. These women averaged six months prior to conception whereas the under 30 women conceived on an average of 3.8 months. The average duration of use of the implant was 34 months. *[Possibly the aging of the cervix from the use of Norplant might explain the delay in conception. Ed.]*

Santelli, J.S., et al. (1995, March/April). **Combined use of condoms with other contraceptive methods among inner-city Baltimore women**. *Family Planning Perspectives, 27* (2), pp. 74-78.

A street survey was conducted among 717 women aged 17-35 in two inner-city Baltimore communities to determine the use of condoms along with another method of family planning. Seventeen percent of the entire sample used condoms as an additional method, while only adults used them consistently. Condom use was negatively associated with diaphragm, IUD, implant, and sponge among both adolescents and adults. Positive attitudes towards "safer sex" (i.e., refusing to engage in sexual intercourse without a condom) and belief in condom efficacy were highly predictive of the use of the condom with another method. Having been tested positive with HIV was negatively related to combined use, while behavioral risk factors showed no association.

Wysowski, D.K. & Green, L. (1995, April). **Serious adverse events in Norplant users reported to the Food and Drug Administration's MedWatch Spontaneous Reporting System**. *Obstetrics & Gynecology, 85* (4) pp. 538-542.

Serious adverse events in Norplant users incurred during use or removal are reported to the Food and Drug Administration MedWatch Spontaneous Reporting System. Between February 1991 and December 1993, 24 women reportedly were hospitalized for infections at the insertion site; 14 were hospitalized or disabled because of difficulty in removing the capsules; 14 were hospitalized for stroke; 3 for thrombotic thrombocytopenic purpura; 6 for thrombocytopenia; and 39 for pseudo tumor cerebrae. While some of the difficulties related to antecedent or related conditions, the strokes and thrombotic phenomena were obviously drug related.

Dunson, T.R., & et al. (1995, April). **Complications and risk factors associated with the removal of Norplant implants**. *Obstetrics & Gynecology, 85* (4), pp. 543-548.

Four and a half percent (4.5%) percent of women from an 11-country study of Norplant removals encountered difficulties in the removal. Most were due to incompetent insertion or infections at the insertion site. The authors advocate more skilled insertion to begin with. *[Judging from the number of law firms who are advertising for injured clients, the number of difficulties is probably far greater than reported in the two articles. Ed.]*

Schlesselman, J.J. (1995, May). **Net effect of oral contraceptive use on the risk of cancer in women in the United States.** Review in *Obstetrics and Gynecology, 85* (5), Part 1, pp. 793-801.

A meta-analysis of all epidemiologic studies which reported relative risk by duration and recency of oral contraceptive use was conducted. Its purpose was to estimate the risk of developing cancer of the breast, uterus, cervix, endometrium, ovary, and liver from age 20-54 years of age in women who had used OC's for 4, 8, or 12 years. For every 100,000 women in the U.S. who have never used oral contraceptives, the expected number of anticipated malignancies between the ages of 20-54 years is: breast cancer - 2,782, cervix - 425, endometrium - 428, ovary - 369, liver - 20. Those women who used oral contraceptives for eight years are expected to have the following number of malignancies/100,000 users: breast cancer - additional 151; cervix - additional 125; endometrium - 197 fewer; ovary - 193 fewer; liver - additional 41. From a population perspective, there are only small cancer-related risks and benefits associated with OC use. The net effect is negligible in both directions.

Bassol, S., & et al. (1995, May). **A comparative study on the return to ovulation following chronic use of once-a month injectable contraceptives.** *Contraception, 51* (5), pp. 307-311.

Two monthly injectable contraceptive drugs, Cyclofem, which consists of 25mg of Medroxyprogesterone acetate and 5mg of estradiol cypyonate and Mesigyna, consisting of 50mg of norethisterone enanthate and 5mg oestradiol valerate, have high contraceptive efficacy with minimal clinical side effects and little disturbance of endometrial bleeding pattern. The two drugs were compared in 21 Mexican women volunteers: 11 Mesigyna users and 10 Cyclofem users, who had a minimum of two years of continuous use. These compared with a group of five controls to establish normal baselines for urinary metabolites of oestrone glucuronide (E1-G), pregnanediol glucuronide (PD-3-G), and urinary LH with ultrasonic tracking of the follicle. Study subjects were followed with daily morning urines collected 30-120 days following the last injection and the samples assayed for E1-G and PD-3-G by RIA (radioimmunoassay). LH was measured by mono-clonal antibody assay. Five of the 11 Mesigyna users ovulated in the first month after the last injection, one in the second month while three of the Cyclofem users ovulated in the first month past injection, two in the second month, and one in the third month. Endometrial bleeding pattern returned to normality within 60-90 days in both groups. *[Nonetheless, only 54% of Mesygna and 60% of Cyclofem users returned to ovulation by 90 days past injection. Ed.]*

The authors cite other studies which found that return to follicular and luteal activity was dose related with Depomedroxyprogesterone acetate (DMPA). A 25mg single dose delayed return to ovulation to between 90-170 days; 50mg dose 125-180 days, while at 100-150mg, ovulation was reestablished within 180 days after the last injection. A single dose of Mesigyna was followed by an average of 51-day bleeding interval plus 11 days of bleeding and spotting; while a single dose of Cyclofem was followed by 43 bleeding-free days and 14 days of bleeding or spotting.

Forste, R., & et al. (1995, May/June). **Sterilization among currently married men in the United States.** *Family Planning Perspectives, 27* (3), pp. 100-107 & 122.

US males are less likely than females to seek sterilization. Between 1982-1988, tubal ligation in the US rose from 23-28% among women aged 15-44, but there was no increase in vasectomy. A sample of the US National Survey of Growth 1988, found that 12% of women aged 15-44 relied on male sterilization as their method of contraception. In 1991, the National Survey of Men studied married men aged 20-39. Twelve percent (12%) of married males have had vasectomy, compared to 13% of married women who had tubectomy. The likelihood of sterilization rises with husband's age, wife's age, duration of marriage, and number of children. Black couples are significantly less likely than white couples to utilize this method, and interracial couples less likely than same race couples. Black males are significantly less likely than white males to elect vasectomy. When vasectomy is chosen, it is significantly associated with race and contraceptive failure with a male method.

Donovan, P. & Klitsch, M. (1995, May/June). **Oral contraceptive users may be at some increased risk of cervical carcinoma.** *Family Planning Perspectives, 27* (3), pp. 134-136. [Digest].

Analysis of three recent studies on the risk of the development of cervical cancer after oral contraceptive use from Los Angeles, Quebec, and an international WHO study found that ever use of oral contraceptives doubled the risk of adeno-carcinoma of the cervix. The highest risk was with 12 years of use odds ratio 4.4, but even at 1-6 months of use, the odds ratio was elevated to 2.9. The short-term users population was different from the others. They were less likely to have completed high school and initiated intercourse before the age of 16, had a higher proportion of more than 2 sexual partners, and as such, were at greater risk for contracting human papilloma virus infection which is considered an intermediary for the development of cervical cancer. The Quebec Study reports the association of carcinoma in situ and its risk factors from a Colposcopy Clinic. Ever users of oral contraceptives had a 40% increased risk of late stage CIN while those who had used OC's for less than two years had no elevated risk. Early stage CIN (carcinoma in situ) was not affected by OC use even among long-term users. Smoking was strongly related to the risk of late CIN, current smokers have an RR (relative risk) of 2.4, while former smokers have an RR of 1.3. Numbers of cigarettes smoked increased the risk. Greatest risk of late stage CIN was found with positive genetic test for past human

papilloma infection, risks increased to 8.7. The number of lifetime sexual partners also increased the risk, but age at first intercourse did not. The WHO collaborative study of neoplasia and steroid contraceptives was performed in Chile, Mexico, and Thailand among new patients admitted for cervical cancer. Matched controls were found at each site and risk factors elicited by standardized questionnaire and personal interview. These included smoking history and husband's sexual behavior. From 1983 onwards, blood testing for antibodies to herpes and cytomegalovirus were included in Thailand. The study ultimately numbered 1,365 cancer patients and 9,614 case controls. Sixty-one percent (61%) of women with cancer and 45% of controls had ever used the pill; after proper adjustment, the likelihood of developing carcinoma in situ in ever users of the pill was 62%. By controlling for other variables - injectable contraceptives, condom use, marital history, abortion history, number of pregnancies, number of pap smears in the past six months - ever users of oral contraceptives were 30% more likely to have carcinoma in situ than never users - RR = 1.30. Combined oral contraceptives' risk was significantly elevated - RR = 1.34, while the small number of women who had used either sequentials or progestine-only pills were at no greater risk. At less than one year of use, no increased risk was seen. The risk was 1.35 between 1-5 years of use, and 2.04 after more than 5 years. Increases in risk were seen if the new pill had been used more than 5 years before (RR = 1.40) and within the preceding year 1.74. When the population was analyzed by presence or absence of vaginal bleeding as the impetus for seeking diagnosis, relative risks were significantly elevated with more than 5 years of use in those who had vaginal bleeding (1.52), and long-term users whose last pill was within the preceding year (1.78). Similar risk for those who had first used the pill between 1-5 years ago or more than 5 years in the past (risk = 2.27) while asymptomatic women also found strong and significant associations between pill use and carcinoma in situ in nearly every category. Ever users have an RR = 1.75; more than 5 years of use, an RR = 2.79 and less than one year of use prior to study, 2.29. Since pill users were expected to have pap smears more often than non-users, the enrollment of cancer patients could be higher than expected in the normal population, leading to a screening basis [and earlier detection.] This was found, RR was low and generally non-significant among women with vaginal bleeding, but high and statistically significant among symptomless women. Nevertheless, the long-term use of OC's "could increase the incidence of cervical cancer by acting at an intermediate stage in the carcinogenic process, this effect is reversible after cessation of oral contraceptive use."

[It is interesting that the Quebec Study found no increase in early carcinoma in situ but a significant increase in later carcinoma in situ, suggesting perhaps that the early stages were somehow missed since the early stage precedes the later stage. The conclusion of the WHO Study is interesting but puzzling. Clearly these women would not be cured of their carcinomas just by discontinuing oral contraceptives. At times the world of statistics seems far removed from reality. 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.*

Menopause

Colditz, G. A., & et al. (1995, June 15). **The use of estrogens and progestins and the risk of breast cancer in postmenopausal women.** *New England Journal of Medicine,* 332 (24), pp. 1589-1593.

Extended follow-up of the participants of the Nurses' Health Study to 1992 was used to quantify the relationship between the use of hormones and the risk of cancer in postmenopausal women. During 725,550 person-years of follow-up, 1,935 newly diagnosed invasive cases of breast cancer were documented. The risk of breast cancer was significantly increased among women who were using estrogen alone (RR 1.32) or estrogen plus progestin (RR 1.41) compared to women who had never used hormones. With current use of hormones of 5-9 years, adjusted relative risk of breast cancer was 1.46, with those using for a total of 10 or more years, RR was the same. The risk of breast cancer associated with 5 or more years of postmenopausal hormone therapy was greater among older women (60-64 years old, RR 1.71). The relative risk of death due to breast cancer was 1.45. Among women who had taken estrogen for 5 or more years, the addition of progestins to estrogen therapy does not reduce the risk of breast cancer among postmenopausal women. The substantial increase in risk suggests that the trade-offs between the risks of breast cancer and the benefits of HRT on heart attacks, strokes, and osteoporosis should be carefully assessed. *[Editorial Comment, see below.]*

Davidson, N.E. (1995, June 15). **Hormone-replacement therapy—breast versus heart versus bone.** *New England Journal of Medicine, 332* (24), pp. 1638-1639. [Editorial].

Estrogen is strongly implicated in the development of breast cancer in epidemiologic studies and animal studies. While there is little risk with past use or short-term use of estrogen, the risk after 10 years of estrogen therapy is increased by 15-30%. The hormones of the cycle have different affects on the breast than they do on the uterus since most proliferative activity in the breast occurs during the luteal phase. Thus estrogen plus progestin might increase the risk of breast cancer more than estrogen alone. The author cites one study to support this thesis but the estrogens

used were different from the conjugated estrogen used in the United States. The Colditz Study deals with women who took conjugated equine estrogen as reported above. In considering the risks of ischemic heart disease which is the most common cause of death among postmenopausal women in the United States, many studies suggest a 50% reduction in the risk of heart disease among women who are on estrogen replacement therapy. When progestin was added in the PEPI (post- menopausal estrogen/progestin interventions trial), replacement improved the lipoprotein profile and lowered fibrinogen levels without appreciable affects on blood pressure or post-challenge insulin levels. But the effect of estrogen alone was more favorable than any combination therapy. This is noteworthy as high LDL cholesterol level has been associated with the risk of atherosclerosis, which was reversed by estrogen. However, the effect of these changes on the incidence of heart attacks or other cardiac events was not known because the study was not designed to track them. The relative effectiveness of estrogen and estrogen-progestin replacement in preventing fractures is positive in preliminary results from the Study of Osteoporotic Fractures. In a prospective study of women who were over 65 years old, the adjusted relative risk for all non-spinal fractures among the 9,700 women was 0.69 overall compared to 0.51 for current combined HRT users. Some preliminary data suggest that estrogen replacement therapy may also lower the risk of fatal colon cancer. In view of our fragmented knowledge on the effects of nutrition and lifestyle, the Women's Health Initiative may shed some light on the hormonal replacement therapy.

Adolescent fertility

Adolph, C., et al. (1995, May). **Pregnancy among Hispanic teenagers: is good parental communication a deterrent?** *Contraception, 51* (5), pp. 303-306.

Writing from Women's and Children's Hospital in Los Angeles, the authors consider the problem of adolescent pregnancy as especially acute among Hispanics because Hispanics have a higher fertility rate (105/1000 in 1989), give birth at younger ages, and have more children compared to the general white population. They accounted for 11% of all adolescent births in 1985. Despite lower rates of sexual intercourse than non-Hispanic adolescents, they have similar pregnancy rates. As communication with one or both parents is thought to relate to teenage pregnancy, a survey of female Hispanic teenagers aged 12-18 was conducted in junior and senior high schools in Los Angeles. Pregnant and non-pregnant teens were surveyed by questionnaire. Pregnant teens were in a special school, comparison groups were selected in inner city junior and senior high schools. The control subjects were two years younger. Ten percent (10%) of the 186 pregnant teens were married, none of the 145 non-pregnant teens. Twenty-eight percent (28%) pregnant teens were on welfare compared to 15% non-pregnant. Mean age at first intercourse was 14.8 years for pregnant and 13.9 years for non-pregnant adolescents. Seventy-seven percent (77%) of pregnant teens had their first sexual experience by 10th grade, compared to less than 20% of non-pregnant teens. Use of drugs and alcohol and acceptability of pre-marital sex was significantly higher among pregnant teens. Parental attitudes toward pre-marital sex differed sharply from those of teenagers: 90% of fathers and 98% of mothers disapproved of premarital sex, while 73% of pregnant teenagers approved of it. Non-pregnant teens were evenly divided: 44% approved, 56% disapproved of premarital sex. Communication with the mother and a sense of being loved by friends were inversely related to pregnancy. After adjustment, significant variables associated with pregnancy were: older age, favorable attitude toward premarital sex, age of menarche, and drug and alcohol use. Marital status and education were not significantly related to pregnancy in the multivariate analysis. *[Using younger girls as controls call the results into question. Ed.]*

Hughes, M.E., et al. (1995, March/April). **The impact of an increase in family planning services on the teenage population of Philadelphia.** *Family Planning Perspectives, 27* (2), pp. 60-65 & 78.

The Philadelphia area Family Planning Services devoted increased resources to developing services for teenagers. However, the rates of pregnancy and childbearing, as well as the use of clinic services for distribution of contraceptive information and changing attitudes regarding its use, showed no change when compared to teenagers in the entire city. The program services covered 30 months from mid-1988. While services may be available, the teenagers failed to seek them out.

Zabin, L.S. [ACOG Current Journal Review 1994; 7:6:48]. (1994). **Addressing adolescent sexual behaviors and childbearing: self-esteem or social change?** *Women's Health Issues, 4*, pp. 92-97.

Zabin describes two different phenomena in adolescent pregnancy: 1) "the universal onset of coital activity in mid- to late-adolescence without regard to marital status, which is common in all industrial nations"; and 2) "the situation in isolated pockets of poverty and disadvantage in which sexual contact occurs at or even before puberty." Zabin suggests that clinicians should develop effective strategies for changing adolescent self-perception that result in sexual behavior. He suggests that clinicians assume that sexual contact after puberty is normal and that while most people share the view that children should not conceive in adolescence (and few teenagers want to get pregnant), many are ambivalent. Those who are ambivalent are at high risk of conception, which is equal to the risk for those who choose conception. Zabin believes that cultural norms and self-esteem are strong enough to allow most adolescents to make wise choices, but for some, the realities of their environment lead more to self-denigration than to self-esteem. *[Evidently the norm has shifted in*

the minds of some researchers, leading to skewed outcomes of personality profile test interpretations. Ed.]

Psycho-Social Sciences

Reinisch, J.M., et al. (1995, March/April). **High-risk sexual behavior at a midwestern university: a confirmatory survey**. *Family Planning Perspectives, 27* (2), pp. 79-82.

Reinisch, a researcher associated with the Kinsey Institute, reports that a random sample of heterosexual undergraduates at a Midwestern University studied in 1991, found that 80% of males and 73% of females had experienced vaginal or anal intercourse. The average age of first vaginal intercourse was 17.2 years for both sexes. Seventeen percent of the sexually experienced males and 18% of the experienced females had engaged in heterosexual anal intercourse. For those, the age at first anal intercourse was 20.3 for males and 19.1 for females. In less than 4 years since first vaginal intercourse, males reported an average of 8 life-time vaginal sex partners, and females 6.1. *[One wonders about the sample since it was a randomly selected group and since the study was conducted by a group which is not unknown for its positions. Ed.]*

Ku,L., et al. (1994, November/December). **The dynamics of young men's condom use during and across relationships**. *Family Planning Perspectives, 26* (6), pp. 246-251.

Adolescent males are likely to use condoms at the beginning of relationships, but their use declines as the relationship continues. At age 17-22, 53% males used condoms with their most recent partner at their first intercourse, but only 44% at the most recent episode. Use also decreases with age. Seventeen to eighteen year olds used a condom at 59% of their first encounters with their most recent encounters, compared with 56% in 19-20 year olds, and 46% in 21-22 year olds. As the likelihood that the female partner is using the pill increases with the man's age, their use of condoms declined. Young men were more apt to use a condom if the partner was sexually inexperienced, less likely if they suspected their partner was at high risk for STD. The authors postulate that their findings support a saw tooth hypothesis which supports higher first use and decline with experience. The authors postulate that as commitment grows and the desire for pregnancy increases, condom use declines. They do not explain the lack of condoms when the risk of STDs is higher.

Séguin, L., & et al. (1995, April). **Chronic stressors, social support, and depression during pregnancy**. *Obstetrics & Gynecology, 85* (4), pp. 583-589.

A comparison of response to stress by low-income and higher socio-economic level expectant mothers found that 47% of the lower socio-economic group and 20% of the higher group scored 10 or more on the Beck Depression Inventory, indicating a depressive state. Chronic stressors, such as financial and housing problems, negative life events, and inadequate social support were all linked to high depressive symptomotology during pregnancy. *[Evidently each generation of obstetricians needs to learn again that life events impact on people's feelings and how they react to pregnancies. Ed.]*

Barnhart, K., et al. (1995, February). **Attitudes and practice of couples regarding sexual relations during the menses and spotting**. *Contraception, 51* (2), pp. 93-98.

A cross-sectional survey among 287 women and 206 men from Santiago, Chile was conducted to determine attitudes and practices regarding sexual relations during menstruation and vaginal spotting: 70% of women and 72% of men avoid sexual relationships during menstruation; 54% of women and 60% of men during vaginal spotting. Women with higher education, such as technical or university, were less likely to avoid intercourse during those times than those with lower education, both during menses (73% versus 57%) and spotting (69% versus 34%). Men with a higher educational level, avoided intercourse less often when their partner was spotting (48% versus 64%). The weekly frequency of sexual relations averaged 2.3, range 0-7 for women; 2.6, range 0-7 for men.

Laruelle, C. & Englert, Y. (1995, May). **Psychological study of in vitro fertilization-embryo transfer participants' attitudes toward the destiny of their supernumerary embryos**. *Fertility and Sterility, 63* (5), pp. 1047-1050.

Attitudes of 200 couples contemplating in vitro fertilization and embryo transfer were evaluated in terms of permitting their supernumerary embryos to be either donated to another couple, destroyed, or used for experimentation prior to destruction. Fifteen of the couples required donor sperm, and three required oocyte donation. Sixty percent (60%) were Roman Catholic, 40% professed no religion, while 1% belonged to another faith group. Thirty-nine percent (39%) elected donation of supernumerary embryos to other couples, 12% donation and experimentation, 19% experimentation, 30% destruction. Ninety-eight percent (98%) wished initial freezing of extra embryos, 77% of couples whose choice implied destruction refused donation, while only 16% of the couples who favored donation, refused destruction. Couples who considered the in vitro embryo as a child already (25%) were as likely to ask for destruction as those who did not, but were far more reluctant to authorize experimentation. Attitudes towards multiple pregnancy were interesting: 32% wished for twins, while 66% accepted twins. Triplets were accepted much less frequently. 28% mentioned awareness of embryo reduction technique, and half of them stated that they would consider it in case of a triplet pregnancy. Genetic lineage was considered less important for parental bonding than nurture and education. Couples requiring donor gametes were significantly more in favor of donation than other couples. *[Their attitude toward destruction is not stated.]*

One-third of the couples considered

the embryo to be a child and yet accepted destruction, restricting only experimentation: "As these couples obviously would not intentionally kill a child that was born already, their assertion that the embryo is a child must be considered with caution." Couples who placed greater importance on genetic aspects rather than the relationship of education for parenting, generally chose destruction rather than spend the rest of their lives "with unforgettable feelings of responsibility." They considered that the embryos belonged to them in the same way as the children resulting from the embryos belonged to them, whether or not they were donated. The obverse was true among those who accepted donor gametes. The authors emphasize the need for very careful counseling in these situations. *[At the recent Andrology Conference, the success of zonal drilling was reported to be 43%. This has led to routine use of embryo reduction. There appears to be a complete divorce from ordinary ethics. Ed.]*

Of Interest

Steiner, M., et al. (1995, June 8). **Fluoxetine in the treatment of premenstrual dysphoria**. *New England Journal of Medicine, 332* (23), pp. 1529-1534.

Premenstrual Dysphoria is the new name for premenstrual syndrome or premenstrual tension. It occurs only in the late luteal phase, appears regularly during the week before menstruation, and disappears a few days after the onset of bleeding. It is characterized by tension, irritability, and mood change. It affects between 3-8% of North American women in their reproductive years. It does not occur in the absence of ovulation and has responded to some drugs which decrease anxiety. Because this syndrome shares many of the features of depression and anxiety states which have been linked to serotonergic dysregulation, it is thought that serotonin may be an important cause. Two drugs which selectively inhibit the reuptake of serotonin have been used in the treatment - Clopramine and Fluoxetine (Prozac). The study reports 313 women who cooperated with the entire protocol of a single blind placebo washout period of two menstrual cycles followed by a randomized double-blind placebo control trial of Fluoxetine (20 or 60mg per day) or placebo for six cycles. Both doses relieved symptoms of tension, irritability, and dysphoria, but the larger dose was associated with considerably more side effects. Improvement was gauged subjectively and objectively. At least 52% of women on Fluoxetine had at least moderate improvement in their first treatment cycle, compared with 22% of the women on placebo. The proportions remained constant during the trial. *[Editorial comment, see below.]*

Rubinow, D.R. & Schmidt, P.J. (1995, June 8). **The treatment of premenstrual syndrome - forward into the past.** *New England Journal of Medicine, 332* (23), pp. 1574-1575. [Editorial].

Rubinow and Schmidt, both researchers in premenstrual syndrome, editorialized that since the syndrome was first described in 1847 by von Feuchtersleben, the question of etiology has been debated and studied. There are no demonstrable changes in gonadal steroid levels or menstrual cycle physiology in PMS women. It appears that the initial thought that PMS is an atypical form of depression is still valid and is relieved considerably by the administration of serotonin uptake inhibitors. However, these effects are not constant over the woman's lifetime, and changes in pharmacokinetic or pharmacodynamic relationships may explain the lack of response to Fluoxetine. While the source of the "sensitivity" that von Feuchtersleben described has not been exclusively identified, its effects can be mitigated by modern treatment.

Piper, J.M., & et al. (1993, September). **Prenatal use of Metronidazole and birth defects: no association.** *Obstetrics & Gynecology, 82* (3), pp. 348-352.

Metronidazole is the most widely used drug for active trichomonis vaginalis infection which is frequently found in pregnancy. Trichomonis causes intense itching and sometimes burning and has been blamed for cervi-

GLOSSARY OF TERMS

Thrombocytopenia is a common hemorrhagic condition in which there is an abnormally small number of platelets in the circulating blood. Platelets play an important role in coagulation. Thrombocytopenia may be genetic or acquired. Causes associated with acquired thrombocytopenia include certain drug therapies such as chemotherapeutic agents, alcohol and antibiotics, which directly influence platelet production such as Bactrim and certain hormones. Drug induced thrombocytopenia has an excellent prognosis if the causative drug is withdrawn.

Purpura is a condition characterized by bleeding into the skin. Purpura appears as red lesions which gradually become purple in color and which then fade and disappear in two to three weeks.

Thrombotic thrombocytopenic purpura may also be referred to as Moschowitz disease. It presents with varied symptoms in addition to pronounced purpura, including signs of Central Nervous System involvement. Thrombotic thrombocytopenic purpura is a serious condition and may be fatal in some cases.

cal irritation leading to premature labor. Because of doubts about the safety of metronidazole during pregnancy, it has not been recommended as the drug of choice. Animal studies had shown that metronidazole was mutagenic in bacteria and caused changes in certain animal models. Human studies were inconclusive. A retrospective study of two cohorts of pregnant women over a five year period was undertaken. The exposed cohort consisted of 1,387 women who filled a prescription for metronidazole between 30 days before and 20 days after the onset of their last normal menstrual period. A comparable cohort of women who did not fill such a prescription over the same time period was used for comparison purposes. The medical records of 94% of the offspring of both cohorts were available for review in the occurrence of birth defects. There was no difference between the two groups. There's no evidence that prenatal use of metronidazole increases the overall risk of birth defect occurrence. *[According to the 1995 Physician Desk Reference metronidazole should not be used during pregnancy unless other approaches have failed. Treatment should be restricted to the second and third trimesters, the time when the danger of teratogenesis is past. Ed.]*

Duggan,B. & et al. (1993, October). **Cervical cancer in pregnancy: reporting on planned delay in therapy.** *Obstetrics & Gynecology, 82* (4), Part 1, pp. 598-602.

A retrospective review of 27 women who were pregnant at the time of invasive cervical cancer was conducted. The incidence of cervical cancer was 1.2 cases/10,000 pregnancies. Most patients were stage 1 and had squamous cell carcinoma. Eight patients in Stage 1A and 1B postponed therapy to optimize fetal outcome with a mean diagnosis-to-treatment interval of 144 days; 19 elected immediate treatment with a mean diagnosis to treatment interval of 17 days. Fetal outcome was uniformly good for the delayed treatment group. Nine fetal deaths and two neo-natal deaths occurred in the immediate treatment group. All patients who delayed therapy are free of disease after a median follow-up of 23 months. Deliberate delay of therapy to achieve fetal maturity appears a reasonable option for patients with Stage 1 cervical cancer complicating pregnancy. Women with small lesions were allowed vaginal delivery followed by radical hysterectomy, while those with larger lesions, >4 cm across, were treated with Caesarian section followed by radical hysterectomy. Delay of treatment is currently recommended if the pregnancy is further advanced than 20 weeks at time of diagnosis and the lesion is small.

Bryant, H. & Brasher, P. (1995, June 8). **Breast implants and breast cancer — reanalysis of a linkage study.** *New England Journal of Medicine, 332* (23), pp. 1535-1539.

A reanalysis of Berkel's report in 1992 which found that women who had breast augmentation had a significantly lower risk of subsequent breast cancer than the general population. A second analysis was undertaken since the initial study presented problematic selection in arriving at the standardized incidence ratios. Breast cancers were reported in two ways: the first included all breast cancers identified in the study, including those found shortly after th implantation, and the second allowed for an induction period of 10 years. Reanalysis found considerable differences in the numbers of person/years at risk leading to a computation of higher standardized incidence ratios. The new ratios — 0.76, 0.85, and 0.68 for induction periods of 0, 5, and 10 years respectively, were not significantly different from 1, the figure for risk without procedure. Thus, the risk of developing cancer in the Alberta, Canada Study is neither greater nor less with or without implants.

Wilcox, A. J., & et al. (1995, May 25). **Fertility in men exposed prenatally to Diethylstilbestrol.** *New England Journal of Medicine, 332* (21), pp. 1411-1416.

Prenatal exposure to Diethylstilbestrol has been associated with later malformations of the urinary tract in men. Diethylstilbestrol (DES) has been shown to cause infertility in mice. The study of men born to women who had taken DES during pregnancy to prevent abortion interviewed 548 of surviving sons 40 years later. Two hundred fifty-three (253) exposed males and 241 who had not been exposed consented to interviews. Malformations of the genitalia were three times more frequent in the DES-exposed men as in the control group. Malformations were encountered twice as often when exposure was prior to the 11th week of gestation, but fertility was unimpaired. Frequency of intercourse was unchanged; there was no impairment of sexual function. *[The protocol did not include semem analysis. Ed.]*

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.