

Natural Family Planning Teachers' Association

IDEOLOGY AND DEVELOPMENT OF NATURAL FAMILY PLANNING

INTRODUCTION

We live in a world dominated and captivated by scientific discoveries. Recent developments in the field of reproduction and their presentation in the media, suggest to the average person that Doctors and laboratories are essential and all knowing. A child growing up today might be forgiven for believing that milk comes in cartons and babies in test-tubes. Paradoxically, there is nevertheless, an increasing 'back-to-nature' movement in the western world, mainly as a result of a growing disillusionment with the 'age of plastics' and a reaction against the tyranny of technology which is most noticeable in the field of family planning and childbirth. As a result, increasing numbers of people are becoming aware of their ability to control fertility in harmony with the woman's natural fertility cycle and are seeking professional advice on the scientific approach to natural family planning. This is an opportune moment to examine the historical background to present-day methods and programmes in order to understand the scientific back-ground to present-day modern, safe, natural family planning methods.

THE HISORICAL DEVELOPMENT OF FERTILITY REGULATION

When people were few and far between and lived in tribes and clans far from each other as they spread over the earth, fertility was a vastly important mystery. Many figurines have been found in ancient archaeological sites.



Venus of Schelklingen
35,000 – 40,000 BC
Mammoth Ivory



Venus of Willendorf
24,000 BC
Limestone

Regulation of fertility in ancient Egypt.

However the earliest written account of family planning occurred in Egypt. The KAHUN papyrus 1900 BC contained formulas for avoiding and achieving pregnancy. The EBERS papyrus 1552 BC gave advice on determining the sex of the unborn child, on the diagnosis of pregnancy and on lactation. It also contained practical contraceptive advice to enable women to avoid conception for one, two or three years, by keeping the environment in vagina acid by means of vinegar and lemon soaked tampons.

Ebers Papyrus	Kahun Papyrus
	
1500 BC Leipzig University	1,800 BC University College, London

Regulation of fertility in ancient India.

In India, the Hindu medical teaching between 1000 and 500 BC gave detailed practical advice on the optimal time for conception, considered to be within the twelve days following the menstrual flow. Advice was also given on sex selection: to have a son, the couple should choose to have sexual intercourse on 'even' nights, (4th, 6th, 8th, 10th, 12th,) and for a daughter the 'odd' nights (5th, 7th, 9th, 11th) were recommended.

Regulation of fertility in ancient Israel



In Israel, the Jewish law of legal purification for women, **Taharat hamishpachah** is outlined in Leviticus, the third book of the Torah and of the Bible. These rules prescribed abstinence until 7 days after menstruation ends, when it was observed that a woman would conceive immediately. It was not realised however that a very short cycle could result in continued sterility. The method worked for the majority of women. Prolonged breastfeeding was also used for efficient birth spacing. These rules are observed in Jewish families to this present day.

Greek and Roman Physicians and Medical Schools



The ancient Greeks and Roman Physicians between 500 BC and 1,000 AD added nothing to the discoveries of the Egyptians, Indians and Jews. In fact their teaching if anything took a retrograde step from that of the Ancients. A school of philosophy attributed the *Single Seed Theory* to Aristotle 384 – 322 BC. The theory was that the child in the womb developed from the single seed of the man.



Later Galen, 129 – 216 AD, a Physician who studied at the Alexandrian Medical School and was Physician to Roman Emperors and Gladiators, forwarded the *Two Seed Theory* on the simply observation grounds that a child would look like the maternal side of the family. Galen undertook dissection of monkeys to aid his surgical skills.

For centuries the general belief remained that menstruation was closely associated with ovulation

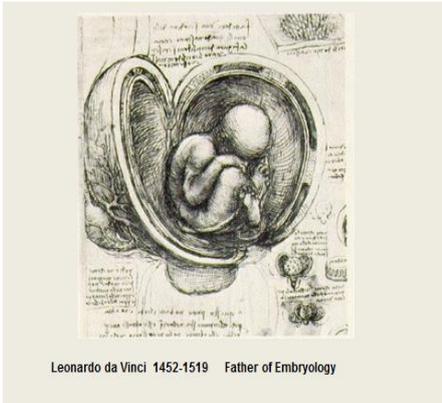
Theories in 17' to 19' century Europe on how ovulation was related to menstruation:
{from: 'History of the Biologic Control of Fertility', (1982) by Mucharski: Paul Thyma was a pen name for the Rev. Jan Mucharski, a parish priest for many years in New-Jersey and New York, who wrote a history of natural methods of fertility regulation through the ages but the manuscript was never published.}

Year	Researcher	Theory
1672	Kerkring	Women eject ova above all during the menses, or on being vehemently angry!
1831	Lee	All the phenomena of menstruation depend upon, or connected with some change in the Graafian vesicles.
1839	Gendrin	Every functional bleeding is correlated with the expulsion of the mature ovum.
1840	Negrier	Relationship of cause to effect exists between the ovarian follicle and menstruation.
1842	Pouchet (French Zoologist)	Human ova matured and were discharged periodically rather than in response to coitus, sexual excitement or contact with sperm.
1852	Letheby	Ovules escape from the ovaries of women during the catamenial flux, (i.e.menses)
1854	Bischoff	Women ovulate at the time of the menses.
1866	Trail	Menstruation is ovulation.

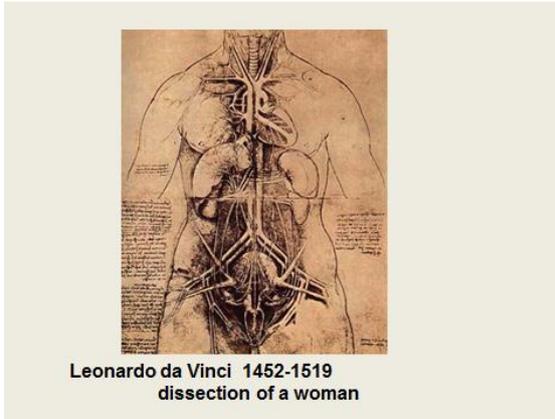
and therefore the most fertile time in the cycle. Mistakenly, the rest of the cycle was considered to be infertile. This theory persisted even into the 19th century.^{5, 6,}

The Renaissance

In order that their sculpture and paintings be lifelike, Michelangelo, Leonardo da Vinci and Raphael conducted dissection on human bodies. The drawings of Leonardo da Vinci particularly reawakened the interest in the anatomy of the human body, leading to the discovery of the circulation and the internal reproductive organs if the woman.



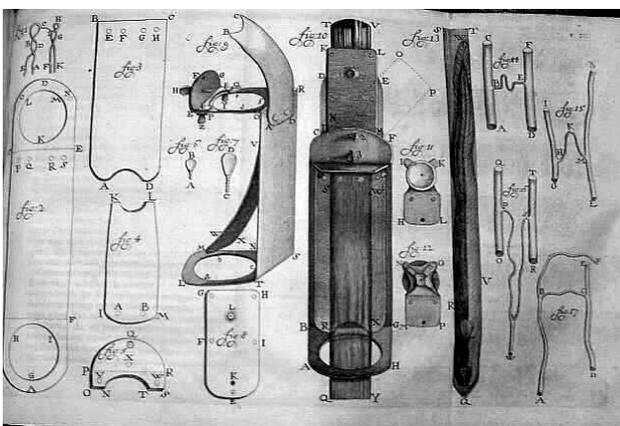
Leonardo da Vinci 1452-1519 Father of Embryology



Leonardo da Vinci 1452-1519
dissection of a woman

This led to the description of the Fallopian tube (oviduct) by Gabrielle Fallopio 1561, Padua Italy, followed by the discovery of the Corpus Luteum by Volcherus Coiter 1573, Italy and Regnier de Graaf 1672, Holland who having studied ovarian follicles in rabbits and concluded that the follicle contained the 'oocyte'.

The next step forward in anatomy was the improvement of the microscope by Antonj van Leuwenhoek 1677 Holland, who identified micro-organisms. He described spermatozoa calling them 'seminal animalcules'. It was Karl Ernst von Baer 1827 Estonia and Germany who was the first to called them spermatozoa and also described the mammalian ovum. In 1765 Albert von Haller concluded that the Corpus Luteum is due to the transformation of the ruptured follicle. Martin Barry 1843, England first described the passage of the sperm through the zona pellucida of the rabbit's ovum. Then John Beard 1897, Scotland, described the role of the Corpus Luteum in pregnancy. The first human ovum was described by Edgar Allen 1928, USA ²⁴



Antonj Philip van Leuwenhoek 1632 – 1723
Delft, Netherlands
Bacteria, spermatozoa and blood circulating in capillaries

From Anatomy to Physiology

Increased anatomical certainty was followed by interest in the function of these organs and the changes during the menstrual cycle which now was the cycle of fertility.

Clinical observation by Dr W. Squires 1868, London in a Tuberculosis Sanatorium noted two levels in the temperature in the charts of women patients. 1904 Van der Velde, Holland, observed that the temperature shift from a lower to a higher level was in relation to ovulation.

This paved the way for our present knowledge of the fertile and infertile phases of the menstrual cycle.

1903 Fraenkel said the corpus Luteum lasted for 2 weeks.

1909 in France Paul Bouin and Paul Ancel having studied the influence of the Corpus Luteum on the uterus, preparing it for nidation (implantation) of the conceptus, and assuring its further development, concluded that the life of the Corpus Luteum was 13 days. A year later they stated that ovulation occurred immediately before the development of the Corpus Luteum i.e. 12 -14 days before the onset of menstruation.

Thus another step in the solving of the mystery of fertility was made, enabling the Gynaecologist Kyasuko Ogino 1924 Japan looking for help for infertile couples published an article discussing the relationship between the Corpus Luteum, cyclical changes in the endometrium (lining of the womb) and the fertile days in women. His work became known in Europe in 1930, although he did not produce a formula for detecting the fertile and infertile phases until 1932.

Meanwhile in 1929, independently of Ogino, Herrmann Knaus an Austrian Gynaecologist presented the results of his new physiologic law concerning the time of ovulation in women, at the 21st Congress of the German Society of Gynaecology on April 29th in Leipzig. Later he published a book outlining a calendar formula to define the fertile and infertile days of the cycle. According to Knaus, the shortest cycle minus 17 equalled the first fertile day, longest cycle minus 13 equalled the last fertile day. When an accurate menstrual history of 6 – 12 cycles is available the fertile and infertile phases of the cycle can be calculated for that woman. Ogino wanted to help couples achieve pregnancy but Knaus wanted to help couples avoid pregnancy. They both assumed that the luteal phase of the cycle after ovulation has a constant length of about 14 days; this became known as the **Ogino-Knaus Method** or **Calculation Calendar Method**. As the calculation formulae were based on averaging many women's cycle data and not tailored to the fertility of each individual woman it had a high unplanned pregnancy rate and has seriously damaged the image of other natural methods.

Parallel to the development of the calendar method was the **Temperature Method**. Dr W. Squire in England in 1868 followed by Dr Mary Putnam Jacobi in Philadelphia described the biphasic temperature pattern on women. In 1904 Van der Velde said this shift from lower to higher level was related to ovulation and in 1928 he said the rise was due to the secretion from the Corpus Luteum of the hormone Progesterone which had been separated in 1933, following the chemical separation of the hormone Oestrogen in 1929. **From Physiology to Chemistry**

In 1945 Dr Mary Barton who had a fertility clinic at the Royal London Hospital showed that unprotected intercourse from the 3rd or 4th day of the high temperature did not result in pregnancy.

Other workers in Europe and the USA published rules for the use of the temperature graph to avoid a conception.

The most important research worker in the UK was Dr John Marshall, a Neurologist, who did the first prospective trial of fertility regulation by the **Basal Body Temperature (BBT) Method** and published several efficiency studies and a book 1963. ^{1, 3,}

However the BBT could only determine the end of the fertile phase, as ovulation had occurred before the temperature rise, but combination with the Calendar Method led to an improved fertility control for couples the **Calculo-thermal Method**. Success in avoiding pregnancy was achieved if intercourse was restricted to the Postovulatory infertile phase but when intercourse occurred in the Preovulatory phase the unplanned pregnancy rate rose considerably.

Two Other Fertility Indicators identified by simple observation viz. (i) cervical mucus and (ii) palpation of the cervix.

Cervical mucus is the most important indicator of fertility and of the beginning of the fertile phase of the cycle, was described first by Felix Pouchet 1847 France and in 1954 described by Dr John Billings as identifying the potentially fertile days of the cycle. Later 1964 introduced as the **Billings Ovulation Method** by Dr John and Dr Lyn Billings and Dr James Brown. ^{2,3,} Erik Odeblad University, Professor of Biophysics University of Umea, Sweden, worked tirelessly describing the different types of mucus and their function in the fertility cycle. Their organisation WOOMB is now worldwide, holding annual meetings which also include Pro-life groups and other social movements.

Palpation of the Cervix. 1964 Dr Edward O'Keefe ^{7,} a New York Obstetrician first described the changes in the cervix during the menstrual cycle. He suggested that women could be taught to examine the cervix to confirm the fertile and infertile phases of the cycle.

DEVELOPMENT OF NEW METHODS OF NATURAL FAMILY PLANNING. When these two new fertility indicators, 'cervical mucus' and 'palpation of the cervix' were added to the other two fertility indicators i.e. 'basal body temperature' (BBT) and the calendar calculation' this led to the development of the two main methods of natural family planning methods used today:

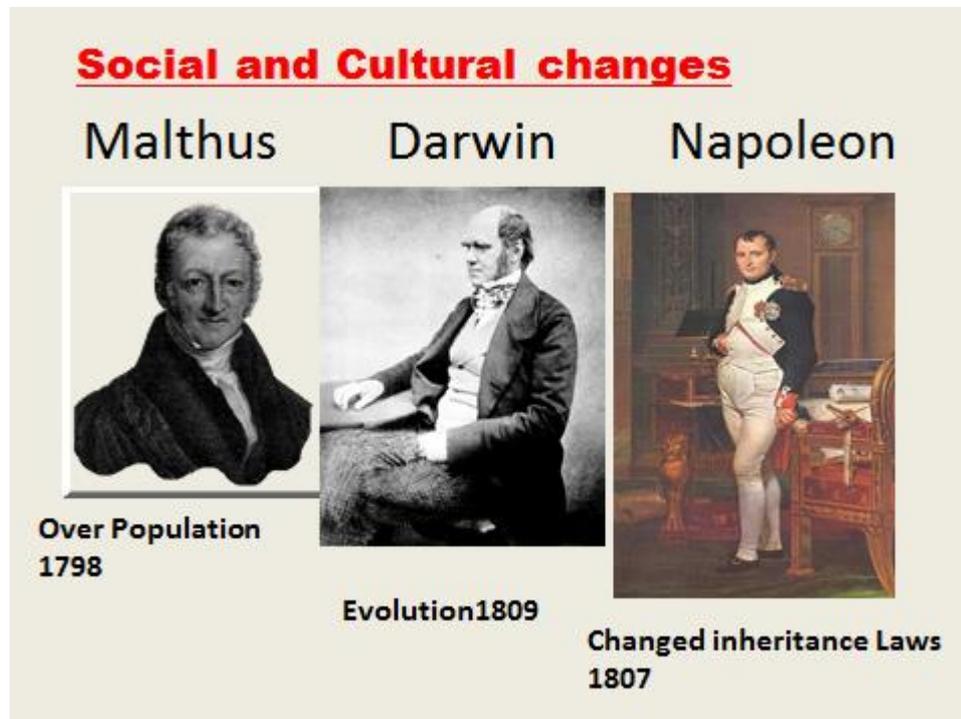
1. *The Billings Ovulation Method* which uses one indicator of fertility
2. *The Sympto-thermal Double-check Method* which uses two indicators for the onset of the fertile phase and two indicators for the end of the fertile phase.

SOCIAL ATTITUDES TO FAMILY PLANNING

It should be said that until the end of the 19th century, there was no pressing need to limit ones family: a low life expectancy, high perinatal mortality and continuous wars did this very effectively. In addition breastfeeding was universal for long periods of time further reducing the woman's

fertility. This view still operates in many areas of the world today where the populations view family limitation to be a very low priority.

However in the 19th century in western society things began to change; medical services, however crude, began to improve the health of both adults and children so more people lived longer. The beginning of the industrial revolution meant that more women went out to work and breastfed their infants for shorter periods or not at all. These societal changes led to the fear of overpopulation.



Thomas Robert Malthus 1766-1834 wrote an essay of 'The Principle of Overpopulation' which greatly influenced Charles Darwin 1809-1882 and others. Napoleon 1795-1821 was more proud of his 'Civil Code of Law' than all his 40 successful battles. In it he dictated inheritance laws that gave equal right of inheritance to all children of the parents instead of the elder son inheriting all. This had profound effect on families.

Another important landmark in the history of NFP was of a moral or ethical nature. Until that point in history all the Christian Churches worldwide rejected artificial contraception as unethical for their followers. But at the Lambeth Conference of the Church of England 1930 the use of artificial techniques was legitimised for the Church of England followers. Other Christian churches in Europe and North America quickly followed suit. The Roman Catholic Church maintained its traditional stand and rejected contraception. As artificial contraception became more the norm for Protestants, the Roman Catholics endeavoured to plan their families by natural means, viz, the Calendar Method but then the 'Men of Science' responded to the call in the Encyclical Humanae Vitae 1968 to search for and develop reliably effective natural methods, hence the Temperature Method, the Billings Ovulation Method and Symptothermal Method.

Meanwhile the Contraceptive Pill was developed, Enavid. It was highly efficient in preventing pregnancy but had very high hormone content which proved dangerous to the health of the women. Repeated lowering of the dose of the hormones has ameliorated the deaths, strokes, thrombosis, and cancer risks to a great extent but not completely, even today.^{29, 30, 31, 32, 32, 33, 36} Understandably many women started to look around for an alternative birth control method and decided to take a second look at NFP which had undergone a vast leap forward in efficiency. Motivated by medical rather than ethical issues, these women looked more to the health services rather than the original NFP movements for advice. Thus the past decade has witnessed the birth of NFP movements without the original ideology of the grassroots NFP movements. In England the Natural Family Planning Teachers Association was founded in the Department of Obstetrics and Gynaecology, Birmingham Maternity Hospital in 1977 by Dr Anna Flynn^{8, 35}, and Dr John Kelly.

In the late 1970s the World Health Organisation^{12, 13, 14, 15, 16, 17, 18, 19} began to take an interest in the promotion of Fertility Awareness and Natural Methods of Family Planning and conducted multicentre efficiency trials, concluded by contrasting the artificial contraceptives where efficiency depended on the technical quality of the contraceptive, with the efficiency of natural methods which relates directly to the quality of instruction given to the user. Another pilot study was carried out by WHO to assess the best method to train teachers. 6 countries took part Kenya, Korea, Canada, The Philippines, Colombia and NFPTA for the UK. We acquired a great amount of expertise in the field of training NFP teachers. NFPTA was the first in Europe to develop standards for the certification of NFP Teachers which were recognised, that time, officially by the Health Services. Consequently, since 1980 NFPTA has been instrumental in developing similar services in Germany, Portugal, Belgium Russia and Kyrgyzstan and many other countries.

The International Federation for Family Life Promotion was founded in Canada in 1975 for the purpose of uniting the several NFP movements and groups scattered throughout the world for consolidation and development. Its aim was to offer NFP methods in a non-sectarian atmosphere encouraging research and scientific development and collaboration with other Family Planning Agencies and Health Services. Sadly through lack of funding the international group has split into regional groups. The European confederation is called European Institute for Family Life Education www.eifile.org. The last meeting was held May 2012 in Milan at the VII World Meeting of Families and hosted an International Summit of NFP and an international poster display.

Conclusion It can be seen that Natural Methods of Family Planning have been around since the beginning of the human race. Their scientific basis only became obvious when science finally caught up in the last century and provide satisfactory explanations for the intuitive and observational knowledge that mankind had had for centuries. In their original form, natural methods satisfy the aspirations of the total person medically, morally and socially. However, the present-day disillusionment with our artificial society, most noticeable in the West is compelling people to seek and alternative to current contraceptive methods. Natural methods offer a valid response but they must be offered in a professional scientific way to satisfy these aspirations.

References – NFPTA History, Development and Ideology

[1] Marshall, J; A field trial of the basal body temperature method of regulating births; Lancet, 1968, July, 8- 10

[2] Billings, JJ; 'The ovulation Method'; 1964; Advocate Press, Melbourne, Australia

[3] Billings, E,& J; Symptoms &Hormonal Changes accompanying ovulation; Lancet; Feb 5; 1972; 282-284.

[4] Marshall, J; 'Cervical mucus and Basal Body Temperature method of Regulating births'; Lancet; Aug 1976; 282-283

[5] Thyma. P: Fertile and Infertile days in married life: authors edition. Fall River. Massachusetts: Raritan Printing Company: 1973

[6] Thyma. P: The Double-Check Method of Natural Family Planning" :Married Life Information. Fall River.Massachusetts:1976

- [7] Keefe E; Self-observation of the cervix to distinguish days of possible fertility; Bull of the Sloane Hospital for Women;1962;129-136
- [8] Flynn, Anna & Brooks Melissa; 'The Manual of Natural Family Planning' p32; 1996; ISBN 0 7225 3115 X
- [9] Roetzer, Josef; 'The Symptothermal Method': Ten years of change; Linacre Quarterly, Nov 1978; 358-374
- [10] Kippley;-The Art of Natural Family Planning: 4th ed 1996: ISBN 0-926412-13-2
- [11] Hilgers TW; 'The medical and surgical practice of NaPro Technol–ogy; 2004; ISBN 0-9744147-0-0
- [12] World Health Organization (WHO);'Temporal relationships between ovulation and defined changes in the concentration of plasma estradiol-17p, luteinizing hormone, follicle-stimulating hormone, and progesterone'; l.Probit analysis; 1980;..AmJObGyn;138:383-390
- [13] WHO; 'Temporal relationships between ovulation and defined changes in the concentration of plasma estradiol-17p\ luteinizing hormone, follicle-stimulating hormone, and progesterone' ;Histologic dating; Am. J. Obstet. Gynecol. 139:886-895, 1981
- [14] WHO; 'Temporal relationships between indices of the fertile period'; Fertility & Sterility; Vol 39,May 1983; p647-655. (Dr Anna Flynn MRCOG, Birmingham was on the investigating task force)
- [15] WHO; 'A prospective multicentre trial of the Ovulation Method of Natural Family Planning I ;The Teaching Phase'; Fertility & Sterility; Vol 36, no 2, Aug 1981; pi52-158
- [16] WHO; 'A prospective multicentre trial of the Ovulation Method of Natural Family Planning II; The Effectiveness Phase'; Fertility & Sterility; Vol 36, no 5, Nov 1981; p591-598
- [17] WHO; 'A prospective multicentre trial of the Ovulation Method of Natural Family Planning III; Characteristics of the menstrual cycle and of the fertile phase';Fertil&Steril;Vol40;No6;Dec1983;773-778
- [18] WHO; 'A prospective multicentre trial of the Ovulation Method of Natural Family Planning IV; The Outcome of Pregnancy'; Fertility & Sterility; Vol 41, no 4, 1984; p593-598
- [19] WHO; 'A prospective multicentre trial of the Ovulation Method of Natural Family Planning V; Psychosexual aspects'; Fertil & Steril; vol 47; no 5, May 1987; p765-772
- [20] Cohen MR, Stein IF, Kaye BM: Spinnbarkeit, A characteristic of Cervical Mucus. Fertil Steril 3:201, 1952
- [21] Flynn A, Worthington W; 'Teachers Training Manual'; 'Symptothermal multiple index method' of natural family planning
- [22] Wyn Worthington, (written communication)

- [23] Allen, Edgar; Pratt JP; Newell L; Bland J; 'Human ova from large follicles; including a search for maturation divisions and observations on atresia, University of Missouri, Henry Ford Hospital, Washington University School of Medicine
- [24] Van Ginnekan, JK 'The chance of conception during lactation'. J. Biosoc. Sci. Suppl. 1977; 4; 41-51
- [25] Kippley, Sheila; 'Breastfeeding and Natural Child Spacing'; 2nd revised edition; 3rd printing 1993; The Couple to Couple League; ISBN 0-9601036-8-6
- [26] Kennedy, KI; Rivera, R; McNeilly, AS; 'Consensus Statement on the use of breastfeeding as a family planning method' Contraception 1989; 39;5; 477-496
- [27] Kennedy, KI, Labbok. MH, van Look, PFA; 'Consensus statement Lactational Amenorrhoea Method for family planning'. Int. Journal of Gynaecology and Obstetrics 1996; 54; 55-57
- [28] 'The Medical Hazards of the Birth Control Pill'; published by Child and Family, Volume 7, 1968 ; Editor Herbert Ratner, MD (Child and Family, P.O. Box 508, Oak Park, Illinois 60303, USA)
- [29] Beral, Valerie; 'Cardiovascular-disease mortality trends and oral-contraceptive use in young women'; The Lancet; Nov 13; 976; 1047-1051
- [30] 'Mortality among oral-contraceptive users'; Royal College of General Practitioners' Oral Contraception Study; (principal author, Dr Valerie Beral); The Lancet, Oct. 8, 1977; ii, 727-731
- [31] Vessey MP, McPherson K, Johnson B; 'Mortality among women participating in the Oxford/Family Planning Association Contraceptive Study; The Lancet, Oct 8, 1977; 731-733
- [32] 'Mortality associated with the Pill; Letters to the Editor, The Lancet, October 22, 1977; 879-880
- [33] Codification Division, Office of Legal Affairs, United Nations (18 May 2005). "Ad Hoc Committee on an International Convention against the Reproductive Cloning of Human Beings". United Nations, <http://www.un.org/law/cloning/>.
- [34] Flynn Anna, Lecture on a Review of the development of natural family planning given in Birmingham in 1988; printed in the 1998 edition of the NFPTAI Teachers' Training Manual.
- [35] Shampo MA; 'The Pill, Its History and Development (The 40th Anniversary)'; Journal of Pelvic Surgery; 2001; Vol 7 No. 4; 196-198)