

How to face infertility from a medical perspective, respecting the human person and married love? NaProTechnology's help in these processes

¿Cómo afrontar la infertilidad de modo médico, respetando a las personas y el amor conyugal? La ayuda de la naprotecnología en estos procesos

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Summary

What to do when a married couple wants to have a child and the child is late in coming, or simply does not come? Naprotechnology, as a medical study of male and female fertility, offers a valid answer to face this situation of infertility/sterility.

We follow as a way the triangular method proposed by Elio Sgreccia: look at the scientific data to make an anthropological analysis and an ethical evaluation that guides the concrete action.

Naprotechnology, as a medical science, is a medical and scientific approach that seeks to solve male and female reproductive and gynecological disorders, identifying the main causes that affect true reproductive health. From this diagnosis, it seeks to correct the possible alterations and restore health and fertility. This way of dealing with infertility/sterility is illustrated with several clinical cases and the results obtained in Spain during the years 2015 to 2021.

Next, we carry out an anthropological analysis of the way of dealing with infertility, analyzing the subject who suffers from it: Who is the human being? What is his sexuality like? In what environment is procreation primarily carried out? On this basis, we outline an ethical judgment of this way of dealing with infertility/sterility problems.

Keywords: naprotechnology, infertility, sterility, procreation.

1. Introduction

In many countries of Europe and North America, we are immersed in a demographic winter. On the European continent, the fertility rate in 2020 was 1.53 children per woman, far from the 2.1 that guarantees generational replacement. Only Georgia comes close to that figure with 1.98. France and Romania follow it, with 1.8. At the other end of the scale, Malta 1.13, Spain 1.19 and Italy 1.24 (1).

Infertility, defined as the inability to conceive after a year or more of regular unprotected intercourse, is also on the rise. Available data indicate that between 48 million couples and 186 million people are

infertile worldwide (2). This means that approximately one in seven couples of reproductive age will have problems in having offspring (3). It is estimated, moreover, that in more than 90% of cases this situation could be overcome if a proper diagnosis were made (4). In Spain, about 15% of couples of childbearing age have problems conceiving (5).

We note, however, that the desire of married couples to have one or more children is still present. They want to but cannot. One of the underlying problems is one of language: physicians believe that they have an obligation to “give” a child to fulfill a parental “right”, a right that is demanded and based on desire. With this approach, and driven by short-termism, there is a danger of not doing medicine, passing too quickly through the analysis and diagnosis of the patient. The child becomes an object of desire and is no longer received as a gift.

2. Approach to the problem. Methodology

What to do when a married couple wants to have a child and the child is late in coming, or simply does not come? Is the only way out, not without problems, to resort to an assisted reproduction technique? Naprotechnology¹ and, in a broader sense, fertility restorative medicine, as a medical study of male and female fertility, offers a valid response to a situation of infertility; moreover, it opens a way to improve sexual health, also contributing to the overall health of the person.

As a method for analyzing this problem, we have opted for the path proposed by Elio Sgreccia in his contribution to bioethics and baptized as the triangular method (6). In the development of this method, we will go through three successive moments:

¹ In this article we use the word “naprotechnology” for ease of reading, although the precise and correct term is “NaProTechnology” as cited by its initiator, Dr. Thomas Hilgers, and his team.

1. The data. The moment of scientific analysis, that provides us with objective data, whether numerical or descriptive. In this article, we limit ourselves to a specific place and space: Spain, years 2015 to 2021.
2. Anthropological implications. The time to delve into the anthropological implications of the proposed action.
3. Ethical analysis and implications. The practical moment, in which the reflections made, will be applied to the specific problem and a response is postulated.

3. The data

Before studying the data or results offered by Naprotechnology in Spain during the period 2015 to 2021, we will briefly analyze the descriptive data that show us what it is and what its principles are.

3.1 Descriptive data

Naprotechnology and in general fertility restorative medicine, as a medical science, can be defined as procreative medicine based on the recognition of the woman's menstrual cycle. This medical subspecialty constitutes a medical and scientific approach that seeks to solve reproductive and gynecological disorders, both in women and men, by identifying the main causes that affect true reproductive health (7). From this point on, the aim is to correct possible alterations and restore health and fertility (8,9).

Infertility is not a disease; it is a symptom of one or more possible organic or hormonal diseases. The physician's action should focus on diagnosing the male and/or female causes of the possibly temporary situation of infertility or sterility (10).

The woman makes a graphic record of her cycle by means of a standardized method of observation, recognition and recording of the flow (especially cervical mucus and vaginal bleeding) (8). The

chart that collects her notes is used as a tool to plan the necessary medical studies, directing them to the specific moment of the cycle that we wish to study. In this way, the woman is an active part in the control and follow-up of her gynecological and reproductive health. This monitoring of cervical mucus can also reflect suboptimal hormone levels and short or variable luteal phases (11).

It is not simply a natural method that helps the natural recognition of the cycle, identifying the fertile window to seek or space the pregnancy; it is rather a medical approach that uses, as one of its tools, a natural method of fertility recognition. Thanks to this information, problems can be identified and treatments can be carried out at specific times of the menstrual cycle. The aim is therefore to improve the physiological conditions of each menstrual cycle to facilitate natural conception (12).

Specialists in this science recommend the use of the Creighton Model FertilityCare System, a systematization of the Billings ovulation method, although it is neither an exclusive nor an exclusive preference with respect to other natural methods of fertility recognition. Formally, we usually speak of Naprotechnology when the Creighton Model is used and of fertility restorative medicine when any other natural fertility awareness method is used. In addition to this tool, Naprotechnology also uses hormonal analysis, ultrasound or other medical procedures that can help and complete the diagnosis.

Naprotechnology identifies possible problems, cooperates with the menstrual cycles, corrects as far as possible the deficiencies detected, all while respecting human ecology and nature. Faced with the initial problem, it seeks the solution from the integral health of the woman and the man, promoting the true sexual health of marriage: the health of the woman, the health of the man and the health of the male-female union that we call marriage. The perspective of the studies carried out by Naprotechnology does not focus exclusively on women, although their sexual cycle is more complex than male fertility, which is linear. Both modes of fertility converge in the fertility of marriage.

It is worth remembering the WHO definition of sexual health: “A state of physical, mental and social well-being in relation to sexuality. It requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence” (13). We highlight only two details:

- Integral well-being: physical, mental (transcendent or spiritual) and social.
- A positive approach to sexuality, with that same characteristic of integrity: physical dimension, mental or transcendental dimension, and social dimension or aimed at human procreation.

María Isabel Valdés summarizes Naprotechnology in her doctoral thesis as being aimed at the study of reproductive dysfunctions associated with infertility, the most frequent being a decrease in the production of cervical secretion, intermenstrual bleeding or spotting, short or variable luteal phase, as well as altered levels of the ovarian hormone’s estrogen and progesterone (14).

At present, the study of male infertility is not present in medical practice. Men with subfertility and infertility problems are too often referred to artificial reproduction units, where they are offered the options of artificial insemination, in vitro fertilization or gamete donation. Agarwal states that about 30% of men seeking help in this area have a seminal disorder of unknown etiology. Therefore, there is a growing need to find the causes that lead to infertility (15).

Rarely are they offered as a first option the opportunity to investigate in depth the causes of their problem, and to give them a specific treatment. This procedure evades the correct medical perspective: to look for the cause of the infertility or subfertility problem and to employ the necessary means to cure it. Assisted reproductive techniques, Boyle notes, focus on achieving pregnancy, regardless of the underlying pathology (12).

Naprotechnology assumes that infertility is not a disease, but one of the symptoms of one or more possible underlying organic or hormonal diseases (12). Experts note that it rarely has a single cause; therefore, it must be analyzed and diagnosed from a multifactorial perspective. The idiopathic cause (or unknown cause) is insufficient for the scientific rigor of a discipline such as medicine. Aristotle already spoke of science as *cognitio certa per causas* (certain knowledge for its causes), and this scientific ideal should never be lost sight of in daily work.

Naprotechnology was developed in 1976, thanks to the studies of Thomas W. Hilgers, an obstetrician and specialist in reproductive medicine (16). In 1985, he opened the St. Paul VI Institute for the Study of Human Reproduction in Omaha, Nebraska (USA). In 2004, he published the book *The Medical and Surgical Practice of NaProTechnology* (17).

Phil Boyle, the family physician who brought Naprotechnology to Europe, summarizes this medical work in three successive phases (12,18):

1. Research phase: patients learn specialized tracking of their menstrual cycle using the Creighton Model or other appropriate charting system. These charts are complemented by a hormonal study, mainly of estradiol and progesterone, throughout the menstrual cycle, paralleling the cycle phase and hormonal level.
2. Correction phase, we will try to correct the pathology that affects fertility, through the administration of different drugs that, properly customized, can improve fertility or cervical mucus: vitamin B6, acetylcysteine, guaifenesin, plantains, ivy or ampicillin. It may also be convenient to administer a prolactin inhibitor or certain doses of luteal progesterone (19). On some occasions, this corrective phase may require various surgical interventions, usually by laparoscopy.
3. Conception phase, a phase that extends between 1 and 12 menstrual cycles in which the couple will attempt conception through sexual intercourse. These cycles are characterized by

showing a normal pattern in the Creighton Model graphs, having correct levels of progesterone and estradiol, and in which follicular rupture can even be verified by ultrasound. If pregnancy is not achieved, the treatment is usually interrupted to look for new alternatives to the current situation.

The study of Naprotechnology arrives in Spain in 2014, thanks to María Victoria Mena, specialist in gynecology, Creighton Model instructor and Medical Consultant in this subject. The following year Helena Marcos, instructor of the Creighton Model and other natural methods of fertility recognition, and Medical Consultant in Naprotechnology, opens the second practice in Spain.

A few months later, the effort of some couples who began to collaborate in its diffusion joined her. The initiative takes shape in the portal www.naprotec.es that offers information and advice since 2016. In 2017, the Spanish Association of Naprotechnology, Naprotec, was constituted to continue this work of counseling, accompaniment and diagnosis.

This association seeks to coordinate the work of counseling and accompaniment to couples interested in this science. This goal is specified in three important notes:

- To accompany and advise people and couples who come to it, moved by an issue related to infertility/infertility, or seeking to know their own body and their periods of fertility/infertility through the Creighton Model.
- Learning: That users, especially women, learn to recognize their cycle from the observation of various biomarkers.
- To act medically and diagnose, based on the observations made, and within an Integral experience of sexuality.

3.2. Numerical data: results of Naprotechnology in Spain (years 2015-2021)

Naprotechnology has a history of more than four decades, although there is not much published data. Stanford *et al.* reported the result of one of the first systematic studies on the subject. They studied

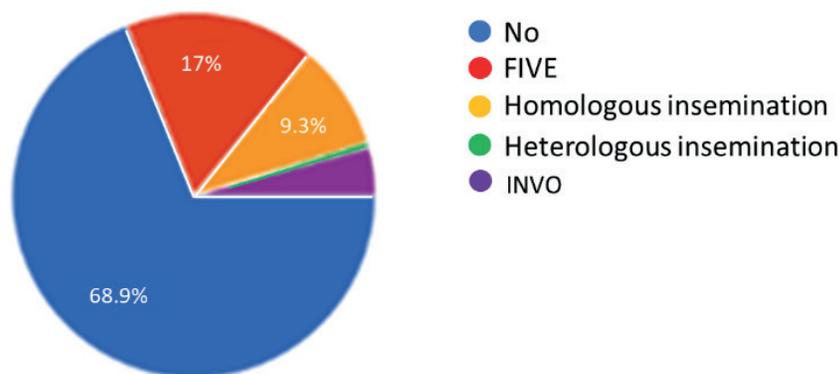
1,072 couples with a mean age of 35.8 years conducted between 1998 and 2002. Approximately 40% of the couples went on to conceive a child, with a miscarriage rate of 1.4% (20).

We set out the data below, limiting ourselves to a specific geographic space and time: Spain, between the years 2015 and 2021.

In these seven years, the counseling offered by Naprotec (www.naprotec.es) and the Spanish Association of Naprotechnology, has attended 5,100 marriages. Currently, the average age of the people who receive information is 33.8 years old for women and 35.8 for men. In the last two years, the average age has decreased, which shows that Naprotechnology is reaching a younger public. The Naprotec association has activated a program for young university students and another for teenagers. Drs. Mena and Marcos have treated 1,560 married couples in their Naprotechnology practice (21).

Regarding the population, that requests information before going to the Naprotechnology specialists, and as shown in Graph 1, 75% suffer from sterility or primary infertility, they have no living children, and 25% already have a child. Thirty-three percent have had some reproductive technique before seeking information about Naprotechnology, either in vitro fertilization or artificial insemination or in vivo fertilization.

Graph 1. Previous assistance to artificial reproduction techniques



Source: Naprotec; 2019.

Focusing on the population that is in medical consultation with Naprotechnology specialists, between 2015 and 2021, 300 pregnancies have been counted, of which 201 live children have already been born. Now there are 99 ongoing gestations (21). The main purpose of Naprotechnology is not only to achieve pregnancy, although the aim is to facilitate its achievement, but above all to improve overall health to facilitate fertility.

Of great interest is the study carried out by Venancio Carrión in chapter 8 of his book *La naprotecnología y más allá* (Naprotechnology and beyond), which gathers data and information on 55 couples treated by Mena and Marcos. These patients were treated in Spain between the years 2015-2019 (22).

Different topics are analyzed in the study, of which we highlight the following:

- a) Ratio of number of women by age range.

The age of the woman is one of the variables most often considered in situations of infertility or sterility. We know that fertility in women is conditioned by age, especially after 35 years of age. Table 1 shows the number of women by age group.

Table 1. Number of women by age group

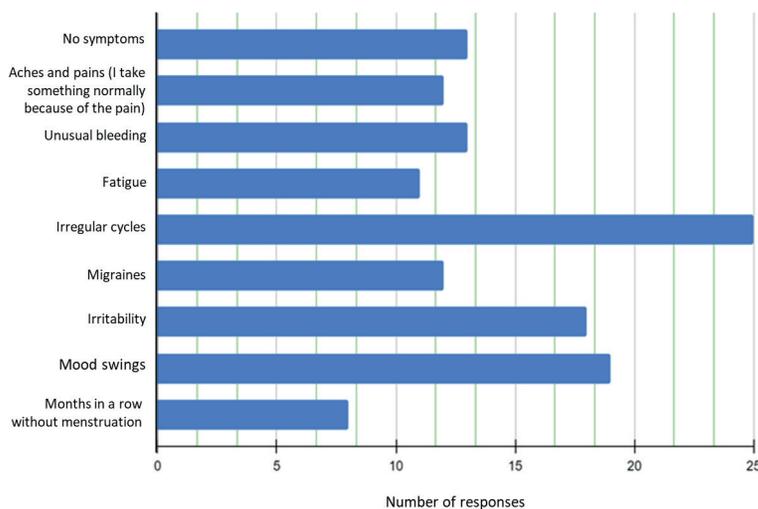
Age range (years)	Number of women
23 a 27	4
28 a 32	18
33 a 37	20
38 a 42	13

Source: prepared by the authors.

b) Symptoms that patients detect before seeking Naprotechnology.

Graph 2 shows the symptoms identified by women who have a problem of sterility or infertility. Many of the phrases present us with situations that women have assumed to be normal; my period hurts; one day I should take an analgesic to alleviate or relieve the pain, etc. Practically half of the women surveyed identify that their cycle is irregular and recognize irritability or mood swings days before menstruation.

Graph 2. Symptoms identified by women who have a problem of sterility or infertility

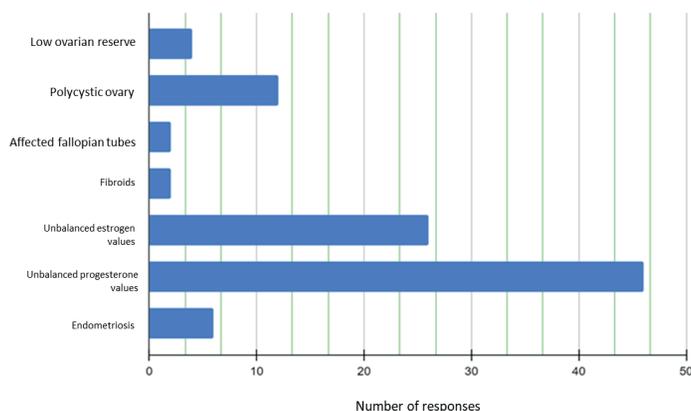


Source: prepared by the authors.

c) Diagnosis of women and men.

As we can see in Graph 3, the hormonal cause is the most relevant. In Graph 4, we can see that it is mainly due to unbalanced estrogens and progesterone.

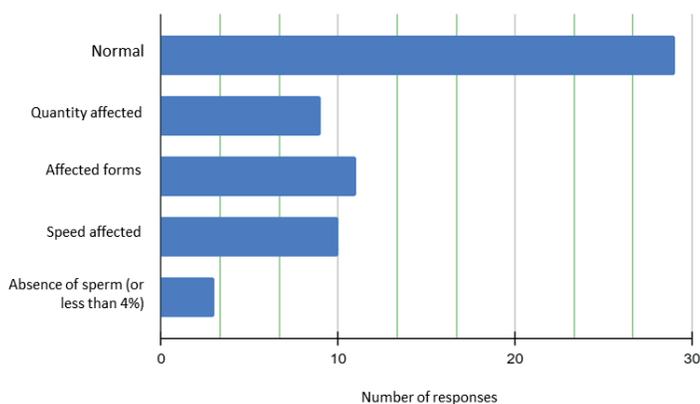
Graph 3. Diagnosis of the woman



Source: prepared by the authors.

Any sterility or infertility study should also consider the situation of the male. In this regard, one of the basic studies is the semen analysis. In most cases, a normal semen analysis is found, although in some patients there are also indicators of subfertility as shown in Graph 4.

Graph 4. Male Seminogram



Source: prepared by the authors.

Based on this study we can formulate the following conclusions (22).

- We can see how Naprotechnology and/or Fertility Restorative Medicine are a real answer to sterility/infertility diagnoses. If the married couple is maintained for, the necessary time and performs all the studies that are requested, a good diagnosis can be reached.
- Age is not a limitation, as the study focuses on the health of the woman. Any menstruating woman can be studied.
- We have seen that older people are not the ones who have needed more time to achieve pregnancy, even if they have used reproductive techniques. There is therefore hope that we can dedicate our efforts to a good study that will get to the causes, without feeling pressured by age.
- Hormonal imbalance is the most common cause in the different women in the sample. Much can be done by regulating estrogen and progesterone levels.
- Naprotechnology can study cases of sterility or infertility, whether they are primary or secondary situations; an example of this secondary infertility is repeated miscarriages.

After these global data, we cite four clinical cases of patients treated by these specialists in Spain, as an example of how diagnoses and treatments are carried out in this specialty.

Clinical case 1

34-year-old woman, four months trying to get pregnant. Short cycles of 22 to 29 days. Discrete elevation of prolactin, which responds promptly to treatment. Her temperature charts show an extremely shortened post ovulatory phase, which is associated with 100% of miscarriages, according to Dr. Hilgers (17), so treatment is necessary. She also has elevated Natural Killer cell values, which are associated with first trimester miscarriages, and high stress, which caused her to abandon the search for pregnancy for a period.

Her husband's spermiogram is very close to oligospermia; all other markers are normal. The first pregnancy occurred in December 2016, after four cycles of prolactin monitoring and control. Hormonal monitoring of the pregnancy evidence decreases in her progesterone levels from week 16. She is started on exogenous progesterone supplementation until stable levels are achieved and treatment is maintained until week 37. Frequent check-ups are advised due to the high risk of fetal distress when hormonal treatment is discontinued. She was diagnosed with severe amniotic fluid reduction at 37+5 weeks, so a cesarean section was performed.

She went again in July 2018 to attempt a second pregnancy. She presented the same problems as before the first pregnancy, although the antimüllerian hormone was severely reduced, and her husband's spermiogram had worsened considerably. The gynecologist who had attended her at the delivery, in view of the tests, recommended in vitro fertilization with donor oocytes, because it was "impossible for her to become pregnant" with these values of antimüllerian hormone, and "they were wasting their time".

Pregnancy after eight months of treatment with vitamin supplementation and progesterone. She is currently in her first trimester of pregnancy with progesterone supplementation and hormone monitoring. Pregnancy is not particularly complicated.

Clinical Case 2

Female, 27 years old and male, 29 years old. Primary infertility, after 18 months married with sexual relations without external impediment for gestation. The male presents oligoasthenoteratozoospermia. It was advised to start the Creighton Method to proceed to the study of the wife, who has no history of interest. Cycles are slightly irregular, ranging between 28 and 36 days. The woman underwent a fertility study by hysterosalpingography, with normal results, although cervicitis was observed, stress with incipient decompensation of adrenal hormones and severe alteration of estradiol and progesterone values throughout the cycle. Hormonal treatment was prescribed to normalize these values.

The male had hypercholesterolemia, hyperinsulinism, food intolerances, which were treated with diet and appropriate medication and increased FSH, as well as two consecutive and different semen infections that required antibiotic treatments. The spermiogram improved, although it could not be considered normal.

Pregnancy occurred four months after starting the study, after the husband's second antibiotic treatment. Hormonal follow-up was done from the beginning, finding reduced values of estradiol, progesterone and DHEA. The patient was kept on treatment until week 38. Spontaneous and uncomplicated delivery in week 39.

Clinical case 3

A 29-year-old woman and a 30-year-old man; they have been married for 7 years without any means to prevent pregnancy. Neither of them has previous pathologies. As they are young, they have not undergone any basic fertility study, and were advised to “relax” and wait. In the first Creighton Model charts they performed, a short luteal phase and abnormal premenstrual bleeding were noted. The analyses confirm a luteal phase of shorter duration than that necessary to achieve successful embryo implantation. Treatment with controlled doses of progesterone, to lengthen the luteal phase. Pregnancy in the first month of treatment, with hormonal values still suboptimal, requiring supplementation during pregnancy.

After the pregnancy and delivery, a year and a half after the first pregnancy, they started treatment to search for a second pregnancy, which they achieved in the third month of treatment with progesterone. When she discusses the case with other physicians, they tell her that it is a “coincidence” that after seven years of searching she has achieved pregnancy in the first month of treatment.

Clinical Case 4

A 41-year-old woman and a 42-year-old man, both with secondary infertility. She had a first pregnancy (healthy son, currently 9 years

old) and subsequently six miscarriages, without clear diagnosis. Increase of headaches during the last years. After diagnostic tests, she was found to have multiple food intolerances, celiac disease and severe hormonal deficiency. Treatment with diet and the usual medication for these pathologies is started. The menstrual cycle chart shows an altered bleeding and fertility pattern.

The patient presented a notable improvement in her general condition, with headaches and digestive symptoms subsiding. Normalization of the menstrual cycle chart. So far, she has not achieved a new pregnancy, but she is very satisfied with the improvement in the previous symptoms.

4. Anthropological analysis

A first remark, before addressing this point. The term reproduction, as applied to human beings, is not fully meaningful. It is more accurate to speak of procreation. The biological reality of reproduction, which we observe in the animal world, is very limited when applied to human beings.

Let us analyze the protagonist of the problem enunciated at the beginning of the article, a human being. Man, this subject-object, who is conscious of his individuality and uniqueness, can be defined as the “being of unity”. We cannot divide, strictly speaking, its constituent parts, its material, bodily component, and its immaterial, transcendental or spiritual component. It is like a coin, which, although it has two sides, cannot exist one without the other. It is a question of two co-principles, which reciprocally claim each other.

Union is not mere juxtaposition of parts, as happens with the pieces of a Lego. It is more like the intrinsic union of a water molecule. Initially we had different atoms, two atoms of hydrogen and one of oxygen. When they come together, something new appears water, which cannot be separated if it remains water. If we separate hydrogen and oxygen, it ceases to be water. We do not say

that oxygen and hydrogen “are united” in water, nor that they “are” water; we say that they are ‘constituent principles’ of water.

4.1. *Unity body soul*

It is the first unity that we discover in ourselves, in every human being. We can speak of body-soul, body-mind, incarnated spirit, sensitive intelligence... Following Luke we can speak of a spirit informing matter, matter that exists as such only informed by a body (23).

Are we a body or do we have a body? (24) One thing and the other. Neither of the two co-principles of the human being makes full sense on its own since both are substantially united. We can affirm that in a certain sense we have a body, without denying that, at the same time, we are a body.

St. Thomas Aquinas, taking up the Aristotelian doctrine, recalls that *nihil est in intellectu quod prius non fuerit in sensu*, that is, there is nothing in the intelligence that is not first in the sense. However, what we perceive through the senses possesses a meaning that goes beyond themselves, beyond their materiality. Physically, the eye perceives certain wavelengths that reflect certain bodies, those who are reading this article. Nevertheless, I do not say: I have certain physical bodies in front of my eyes, but there are some people who are looking at me and listening to me. The mere external and internal senses and intelligence are integrated and interrelated. Thus, we come to perceive “human bodies”.

We never see man's body as a simple body, but always as a human body, that is, as a spatial form charged with references to an intimacy (25).

Taking the question to the phenomenon of falling in love and marriage, we can ask ourselves: Whom did my wife fall in love with? With a body of one meter ninety, blond hair and blue eyes? Evidently not. However, she also fell in love with my body; it is a constituent part of myself.

4.2. *Unity in sexuality; beyond genitality*

Human sexuality is a dimension of all that embodied spirit, of that indissoluble union of soul and body. It is therefore an integral, complex dimension, with a biological or physical component, united to the affective or spiritual component. Therefore, we have insisted so much on the unity of body and soul, and on our relationship with a specifically human body.

The conjugal relationship itself is a specifically human reality, which goes beyond the mere biological relationship. Philosophical anthropology outlines some intuitions that show this specificity: 1. The incongruence of the male and female excitation curves. 2. The absence of periods of estrus. 3. The difference between arousal and emotion (25).

The phenomenon of caresses also shows us that sexuality is not mere genitality. It is not a simple touching, as I can touch a table or the keys of a computer. It is a touch with a meaning, an affectivity. However, it is still something physical; I touch the other person in his or her body.

4.3. *Marital unity*

The anthropological subject of fertility or infertility is not the isolated man, nor only the woman; it is the man-woman union, marriage. “For this reason a man shall leave his father and mother and be joined to his wife, and the two shall become one flesh”, we read in the book of Genesis (2:24). Beyond the religious content of this statement, we find a reality that we experience daily in our lives. In marriage, what happens to one spouse also affects the other.

Many married couples, when they tell their friends that they are expecting a child, say the phrase “We are pregnant”. Are they really? Strictly speaking, it is the wife who is pregnant, not the husband. However, it is a reflection, almost natural, of that marital unity.

5. Ethical analysis

Having seen the data, the concrete facts, and after having analyzed the anthropological subject protagonist of the facts, let us briefly analyze the ethical implications of this “problem” and the appropriateness of the response offered by Naprotechnology.

Ethics or morality is usually identified with doing good or doing bad. We know, moreover, that human beings are always motivated by the good. If there is no good, the motor of our will does not move, does not act. Ethics is, at its root, the science of choosing the best good, the highest good, and the integral good. Aristotle, in his *Nicomachean Ethics*, starts from an observation, beyond the choice between good and evil. “All men, by nature, seek happiness (26)”. Ethics is the choice of the end that brings us closer to an integral happiness.

Joseph de Finance, in his manual of *Etica Generale*, studies ethics from personal experience; he analyzes for this purpose the phenomenology of moral value. A value is that which attracts us, based on the good that we recognize in things. Having a child, for example, attracts us as an end because we recognize a good in it. De Finance speaks of the existence of a hierarchy of values (27) (of goods, of ends) that guides our actions: subhuman values, inframoral human values, moral values and religious, spiritual values. Similarly, we can affirm that from Naprotechnology arise human goods (the child, health), moral goods (marriage) and spiritual goods.

5.1. *The good of the child*

It is legitimate and fully understandable that a married couple wishes to have offspring. Children are always seen as a good, and in this perspective, Naprotechnology is helping many couples to make this desire a reality. In addition, this with full respect for the dignity of every human being, in the respect for life and in the way it is engendered.

5.2. *The good of physical health*

An important goal for this science is the physical health of both the woman and the man. As we said earlier, infertility is not a disease but a symptom, a warning that, quite probably, some physical, bodily element is not functioning properly.

In medical, nursing and pharmacy schools, there is a strong emphasis on preventive medicine, and the result of this orientation are numerous public health campaigns. Why not also apply it to sexual health, to true sexual health, beyond the ideological use that is often made of this term?

5.3. *The good of marital health*

Difficulties unite us in a special way with those with whom we have shared them. In addition, infertility/sterility problems affect in a special way the relationships between spouses, straining or strengthening them. Naprotechnology, by its very respectful and constructive dimension of marriage, helps to face this situation as an issue that affects both spouses, and in which both walk together.

5.4 *The spiritual good of man*

Man, in his inner self, recognizes when he has acted well and when he has not. He has a conscience that gives him a practical judgment about his actions. In addition, he knows when he has acted respecting his nature as an incarnated spirit, and when he has allowed the physical, bodily part to dominate the transcendent, spiritual part. We understand as human health that which derives from this specificity of man and his nature. Naprotechnology, by respecting the human laws that we discover in his nature, leaves in his conscience the satisfaction of having done things well.

5.5. *Ethics put into practice*

The good is not a pure entity of reason, the destination of our intellectual contemplation. The good is that which attracts the will and impels it to act. Therefore, this ethical analysis must lead to concrete realities, either to facilitate the diagnoses offered by Naprotechnology, or in the realization of the treatments indicated for such diagnoses.

6. Conclusion

We have started from the phenomenon of declining birth rate and fertility. It seems that what Javier Marqueta stated more than 10 years ago is still very topical: social changes, among which the new roles of women and the accessibility of contraception stand out, are leading to a decrease in the birth rate and a delay in the age at which women have their first child (28).

We have been deepening, thanks to the triangular method, the anthropological and ethical meaning of Naprotechnology, highlighting its positive aspects for the integral development of the human being. We are now left with the practical application of what we have analyzed. In this light, we can affirm that following the path of Naprotechnology in the approach to infertility/sterility problems offers a series of benefits for physical health and human procreation itself. This medical subspecialty, moreover, respects the anthropological nature of the subject, both the subject-individual and the subject-marriage, protecting the physical and emotional unity of the conjugal act. It provides, at the same time, integral and elevated goods, even in those circumstances in which the expected child does not arrive. It is, therefore, a very positive response to the reality of infertility/sterility.

References

1. Eurostat. Total fertility rate [Internet]. Luxemburgo: 2021 [Accessed 2021 Ago 29]. Available at: <https://ec.europa.eu/eurostat/databrowser/view/tps00199/default/table?lang=e>
2. Organización de las Naciones Unidas. Infertilidad [Internet]. 2022 [Accessed 2022 Ago 29]. Available at: https://www.who.int/es/health-topics/infertility#tab=tab_1
3. García R. Estudio de nuevos marcadores de infertilidad masculina [doctoral thesis]. Madrid: Universidad Autónoma de Madrid [Internet]. 2018 [Accessed 2022 Ago 29]. Available at: <http://hdl.handle.net/10486/684219>
4. Rodríguez M. Modelo vincular en una pareja tratada a causa de infertilidad. MEDISAN. 2016; 20(10):2294-2297.
5. Ramírez A, Cala A, Fajardo D, Grave de Peralta R. Factores causales de infertilidad. Rev Información Científica. 2019; 98(2). <http://www.revinformacioncientifica.sld.cu/index.php/ric/article/view/2235>
6. Sgreccia E. Manuale di Bioética. Milano: Vita e Pensiero; 1999.
7. Stanford J, Smith K, Varner M. Impact of instruction in the Creighton model fertility-care system on time to pregnancy in couples of proven fecundity: results of a randomised trial: Creighton model and time to pregnancy. Paediatr Perinat Epidemiol. 2014; 28(5):391-9. <https://doi.org/10.1111/ppe.12141>
8. Stanford J, Porucznik C. Enrollment, childbearing motivations, and intentions of couples in the Creighton Model Effectiveness, intentions, and Behaviors Assessment (CEIBA) study. Front Med. 2017; 4:147. <https://doi.org/10.3389/fmed.2017.00147>
9. Tham E, Schliep K, Stanford J. Natural procreative technology for infertility and recurrent miscarriage: outcomes in a Canadian family practice. Can Fam Physician. 2012; 58(5):e267-74.
10. Carrión V, Fabrés V. El misterio de la fecundidad en el matrimonio infértil. Hombre y mujer los creó [Internet]. 2019 [Accessed 2019 Jul 7]. Available at: <https://jp2madridd.es/index.php/aula-abierta/hombre-y-mujer-los-creo/634-hom-muj-19038>
11. Gallo P, Tham J. Medicina y Ética. 2022; 33(1):205. <https://doi.org/10.36105/mye.2022v33n1.05>
12. Boyle P, de Groot T, Andralojc K, Parnell T. Healthy singleton pregnancies from restorative reproductive medicine (RRM) after failed IVF. Front Med. 2018; 5:210. <https://doi.org/10.3389/fmed.2018.00210>
13. Organización Mundial de la Salud, Salud sexual [Internet]. 2022 [Accessed on 2022 Ago 29]. Available at: https://www.who.int/es/health-topics/sexual-health#tab=tab_2
14. Valdés, M. Aplicación del conocimiento de la fertilidad humana para buscar embarazo: resultados en el ámbito clínico [doctoral thesis]. Madrid: Universidad Rey Juan Carlos. 2012:26-29.
15. Agarwal A, Majzoub A, Esteves S, Ko E, Ramasamy R, Zini A. Clinical utility of sperm DNA fragmentation testing: practice recommendations based on clinical scenarios. Transl Androl Urol. 2016; 5(6): 935-950.

16. Hilgers T, Prebil A. The ovulation method: Vulvar observations as an index of fertility/infertility. *Obstetrics & Gynecology*. 1979; 53(1):12-22.
17. Hilgers T. *The Medical and Surgical Practice of NaProTechnology*. Omaha, Nebrasca: Pope Paul VI Institute Press; 2004.
18. Boyle P, Stanford J. Naprotechnology (natural procreative technology), a multifactorial approach to the chronic problem of infertility. *Psu.edu*. 2011; 21(3):61-68.
19. Horodenchuk Z, Furman O, Datsko H. Restorative reproductive medicine for infertility and recurrent miscarriage in the outpatient ob/gyn practice in Ukraine. *Kwartalnik Naukowy Fides et Ratio*. 2020; 43(3):442-61. <https://dspace.vnmu.edu.ua/123456789/5411>
20. Stanford J, Parnell A, Boyle P. Outcomes from treatment of infertility with natural procreative technology in an Irish general practice. *Journal of the American Board of Family Medicine: JABFM*. 2008; 21(5):375-384. <https://doi.org/10.3122/jabfm.2008.05.070239>
21. Vaquero J, Mena M, Marcos H. La ayuda que ofrece la Naprotecnología para afrontar la infertilidad/esterilidad de modo médico y acorde con una sana antropología. *Cuad Biot*. 2019; 30(100):338. <https://doi.org/10.30444/CB.43>
22. Carrión V. *La Naprotecnología y más allá. Caminos de esperanza ante la infertilidad*. Barcelona: Carena; 2021.
23. Lucas R. *El hombre, espíritu encarnado*. Madrid: Atenas; 1993.
24. Para profundizar en esta cuestión aconsejamos el tratamiento realizado por Lucas R. *Antropología y problemas Bioéticos*. Madrid: BAC; 2001.
25. Lucas R. *El hombre, espíritu encarnado*. Madrid: Atenas; 1993.
26. Aristóteles, *Etica Nicómaco*. I(7):1097b-1098a.
27. Finance J. *Etica generale*. Bari: Tipografia Medirionale; 1989.
28. Marqueta J, Hernandez J, Luceño F, Cabell Y, Fernandez Shaw S, Vidal E. Reflexiones en torno a la evolución de la salud reproductiva y de los tratamientos de reproducción asistida en España a la luz del Registro de actividades de la Sociedad Española de Fertilidad. *Salud sexual y reproductiva. Aspectos científicos, éticos y jurídicos*. Madrid: Comares; 2010.

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