

## ABILITY OF FERTILIZATION ON OPTICS OF MEN 18 TO 35 YEARS OF AGE

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### ABSTRACT

Male infertility is increasing gradually and reaches large amount of men, interfering in their living conditions and health. The objective of the present study is to analyze the meaning of the ability of fertilization and the factors that affect it from the perspective of men of 18 to 35 years. This is a qualitative study, carried out from semi-structured interviews with nineteen workers from four companies with distinct characteristics. In data analysis, focusing on the thematic mode content analysis, it was possible to build the following categories: "the value assigned to the ability of fertilization", "Myths and truths about the functioning of the body for fertilization to viable", "internal and external interfering Factors on fertilization capacity" and "lack of info on male fertility and difficulty in seeking help". It is evidenced the need for actions in health that include the optics of completeness from the experienced reality, values and beliefs.

**Keywords:** Men's health. Fertility. Health promotion.

### INTRODUCTION

The male fertilizing capacity, as well as being committed to a large proportion of men, is increasing gradually in recent decades. In Brazil, the men are responsible for up to 40% of cases of marital infertility. Corroborating this data, recent studies suggest that sperm concentration is waning and that the incidence of developmental abnormalities, such as hypospadias and cryptorchidism, seems to be increasing, as well as the incidence of testicular cancer<sup>(1)</sup>.

Concern focuses on occupational condition, since the quality of sperm is decreasing, mainly in industrialized countries, worldwide. Among the occupational factors that can interfere with male fertility are working at high temperatures and/or exposure to pesticide use, such as organophosphate Dibromochloropropane (DBCP). Such factors produce abnormalities in spermatogenesis, though reversibly<sup>(2)</sup>.

Other factors can also determine the existence of low sperm motility, low vitality and low. Among them, diabetes, certain types of surgeries and trauma<sup>(3)</sup>, in addition to the chronic use of licit and illicit drugs<sup>(1)</sup>. We see, then, that although the gap in male fertility is

multifactorial, many of its causes can avoided.

Infertility involves physical factors, emotional, social and cultural rights and concerns not only the couple affected but to society as a whole. The misunderstanding and silence still involve the subject and instead see infertility as a disease; many consider it a sexual problem. It is true that infertility causes, for most of those involved, prolonged stress, which leads to emotional and interpersonal problems, because motherhood is considered a legitimate objective and indisputable in people's lives<sup>(4)</sup>.

Although it seems less clear the suffering imposed on the man infertile when compared with the women, according to a study which examined the difference in life quality among infertile men and women, the variables that affect the quality of life were similar for both sexes, except in the field environment in which the man was bigger<sup>(5)</sup>.

The lack of information available on the subject seems to be one of the main causes of this misunderstanding<sup>(6)</sup>. In addition to the sizing of the problem the fact the male component have been ignored for a long time, both by health professionals as by the individual<sup>(1)</sup>.

Study conducted in Indonesia with infertility patients revealed that most of them show

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themselves concerned about the embarrassment caused by the diagnosis of infertility, concluding that health education initiatives, as well as access to treatment must be integrated as a matter of urgency<sup>(7)</sup>.

In the verification of knowledge about infertility among adults of 18 to 50 years old who were trying to get pregnant for at least six months, it was found that 56.6% of respondents had knowledge about treatment, index that includes those who had higher education, paid work had made prior medical consultation, which, for the authors, it didn't happen with the population in general<sup>(8)</sup>.

Against this, it is important to recognize the infertility as a problem that demand investments, mainly through health education. However, that information about male infertility issues make sense for human life, it is necessary to identify who will addressed, their knowledge, concerns, fears, beliefs and needs, since infertility has been a theme still little discussed in our society. Therefore, in order to contribute with data that can subsidize the health care in reproductive phase; the present study seeks to analyses the meaning of the ability of fertilization and the factors that affect it from the perspective of men of 18 to 35 years.

## METHOD

This is a qualitative study carried out in the period from July 14, 2012 to September 14, 2012, with men of 18 to 35 years, employees of four private companies located in the city of Marília, São Paulo State, which are characterized as follows: *1 Company*: company specialized in production of precast concrete materials, currently comprises 92 employees, of whose total 81 are male. In addition, *corporate meetings* *2*: civil and industrial engineering company with a working team consisting of 40 employees, all men. *Company 3*: Accounting firm that provides corporate advisory services and private, acting together to the police dispatcher, with seven employees and two owners, being six males. *4: Company*: Food trading company with employees, among which 20 are male. The choice of these companies established by the need to obtain

participants with different characteristics with regard to schooling, to the economic and the occupation.

Invited to participate in the study, five members from each company, aged between 18 and 35 years, with different occupations and income ranges. Effectively, nineteen men interviewed randomly selected, taking into consideration the sampling by saturation. The age range chosen because it is the period in which, in most cases, the interest of forming a family and therefore generate a descendant.

For data collection, was used the semi-structured interview technique, driven by a script of questions closed and open, focusing on data Social-Economic Classification criterion for Brazil (CCEB)<sup>(9)</sup>. In addition, ascertained-if life habits, health data, as well as questions about the importance attributed to fertility, on the functioning of the body to produce sperm, factors that interfere in this production and the doubts concerning the theme.

At the beginning of each interview, clarified the purpose of the study and, when agreed, the participants signed an informed consent. Each interview was conducted on the premises of undertakings, during office hours, placeholder and with prior authorization of the owner. To ensure reliability and preserve the original content, the interviews recorded on digital voice recorder and transcribed by the responsible researcher.

For data analysis, content analysis, thematic mode, indicated for studies involving opinions, attitudes, values and trends. Initially conducted the reading of each of the interviews, aimed at the Organization of the material and the recognition of initial ideas of the text. As a result, the material subjected to further study, goal-oriented and theoretical framework, aiming to break-up record units, i.e. the encoding corresponding to the transformation of the raw data of the text. By clipping, sorting and aggregation, it was possible to achieve a representation of text content aimed at the formulation of categories. After defined these categories, relationships were established and subsidized deductions by reflection and theoretical foundation, which allows obtaining the considerations theme<sup>(10)</sup>.

The research included the approval of the Committee of ethics in research with Humans at the Faculty of Medicine of Marília, in accordance with resolution 196/96, getting the Protocol n° 480/12. In the presentation of the results, the words of the participants coded with the letter H followed by the number equivalent to the string that the interview conducted, in order to preserve the anonymity of the subjects.

## RESULTS AND DISCUSSION

As for the profile demographic of 19 participants, it found that 10 were between 18 and 25 years of age, with 10 singles and, of the total, the same amount he had attended high school. Four participants presented the top level complete. Work activities covered concrete central operator, production assistants, servants, responsible for shipments, butchers, shelf stockers, Sales Manager, buyer, Administrative Assistant, bookkeeper, accountant, broker and Assistant civil engineer. Regarding the socio-economic classification, nine classified in class D; six in the class C; two in class B and two in class E.

In the analysis of qualitative data, it was possible to build four thematic categories that express the meaning of the ability of fertilization and the factors that affect from the vision of respondents: "the value assigned to the ability of fertilization", "Myths and truths about the functioning of the body for fertilization to viable", "internal and external interfering Factors on fertilization capacity" and "lack of info on male fertility and difficulty in seeking help".

### 1. The value assigned to the ability of fertilization

Respondents to the ability of fertilization the values implicit in the social imaginary, relating it to the manhood, with the form of a family/keep the marriage and offspring, as noted below:

Is the man too. It is worrisome, because you cannot get pregnant the woman. Therefore, he is causing more problems, more difficulties in the marriage, and there comes a point, sometimes, that if the couple decides to seek medical advice, something, all right [...]. Is strong routine fight of the couple, a son. (H1, 35 years)

The become father and raise a family are considered important phenomena for most men, because, through this transformation, socially identified as adults, establishing the condition for the realization of its own. In addition, having a child may reveal the desire for immortality, the idea of transcending his own existence or, even, to fill gaps in your life<sup>(6)</sup>. The following statement reflects that.

The importance of the sequence of life, besides having that whole part educational, too, that in reality we have to procreate. Is also of utmost importance the need to be an achievement of the couple; It is actually a continuity in marriage. After a certain period, the couple miss having a child to be able to give the same sequence in all what we have planned, and the child, in case new being in the family, a part of it. (H4, 34 years)

Add to that the ability to get pregnant, for the respondents, also manifests as synonym of masculinity, as shown in the following statement:

To man the ability to become pregnant is very important for the formation of a family. It is also important for the male side of the man, his masculinity; he can prove to himself that he can produce an heir, someone to follow what he left there. (H18, 29 years)

This understanding relates to the fact that the man socialized as a strong and autonomous person and sexuality exerted as a form of masculinity. Corroborating this relationship, study of infertile couples undergoing *In vitro* fertilization revealed that they consider embarrassing your infertility, especially when the source is male<sup>(11)</sup>.

Reveals that the paternity, in addition to male identity, tends to illustrate a sense of responsibility as a maintainer of a family and, even, as statement of potentiality and virility. On the other hand, also tends to express feelings of attachment and affection<sup>(12)</sup>. The following report demonstrates that:

Is the Union, the Board, the Union of the couple, to have the will of the two have a son. I think his wife got pregnant, I think it increases more love, affection; I think that the trend is to increase more the relationship. (H10, 35 years)

Against this, it is important to consider that the man has shown a tendency to be less active

to seek treatment and keep him, in addition to using certain strategies to deal with the pain, how to prevent women with young children or other mementos that make increase your emotional distress<sup>(13)</sup>. When you consider that, at present, 20% of couples are infertile, the debunking of this condition becomes essential<sup>(14)</sup>.

## 2. Myths and truths about the functioning of the body for fertilization to viable

Study participants, when asked about how the body works so that fertilization occurs, issued both responses that approach of the scientific basis as other we reveal that such operation is still a myth. Between the interpretations surrounding the term *mythic*, the notion regarded as "illusion, Ghost or camouflage". Following the analogy of the "Myth of the cave", described by Plato, it is known that to overcome it, we must tolerate the idea that what is around us can be very different from we think or expect<sup>(15)</sup>.

Among the study subjects, one of the ways to understand the functioning of the body to become viable, fertilization is in the following lines. It reveals ignorance of this operation, especially when considering that sperm production, spermatogenesis, occurs in the "blood" and that they are "stored in the prostate".

It would be in the bloodstream [...] I think the sperm, it made and remains in the bloodstream. Therefore, something out of your system is not working or something happened [...] (H1, 35 years)

Are various organs that help for that to happen. How is this, I think there are several organs that help to produce sperm [...] they are creating, then put it all together to be released. [...] I think it is in the prostate [...] at penises. (H10, 35 years)

Although there is ignorance about being responsible for the production of testicles male gametes and the function of other organs of the genital system of men, it should be noted, in the following speech, there is the understanding of the necessity of a hormonal action for the occurrence of spermatogenesis, even if it's not understood the interdependence of neuron-hormonal Center hypothalamus-pituitary-gonad:

They produced through the hormone and blood [...] after a vein that we have penis ligament [...] they are stored [...] in the ovum of the man. (H16, 31 years)

In a note to the previous speech, one can observe the mention of a term employee, usually the female gamete, and the reference to the "*egg man*" as a place of storage of sperm. This job may be misunderstanding about the structures that make up the male genital system, as well as of their duties.

Highlights also the ignorance about the production and sperm storage because some believe that sperm produced at the time of the sexual act, unveiling the misinformation about the production cycle and sperm complete maturation.

Is more in touch, feel that produced. I do not think are stored, I think you produced at the same time [...] (H15, 25 years)

When it refers to the process of sperm production *versus* production of seminal fluid, observed the establishment of the relationship between the seminal vesicle and the testicle on the part of the participants, denoting understanding the need for both viable for fertilization, to consider the production of seminal fluid for sperm progression:

[...] Substances there that I think comes from the gallbladder [...] a little Lube, Middle tuffnut. (H3, 23 years)

[...] They produced in vesicles in the testicle, and then by the penis he ends up ejaculated. (H4, 34 years)

Another aspect, which constitutes a myth, is the relationship between impotence and infertility, as noted in the following talks:

The person is helpless and cannot have child [...] because if he is impotent, he has no way to generate the son [...]. (H11, 34 years)

Although there may be a connection between the two conditions, since the impotence can hamper intercourse and, therefore, fertilization, she translates into infertility because it comes to a sexual dysfunction.

When considering that overcoming the myths is the confrontation of reality, it believed that the National men's Health Policy constitutes an important trigger for changes to occur in the

form of thinking and acting of the man against the health care. In this perspective, learn about the functioning of the body allows the man recognition of possibilities to intervene in their condition of life and improve it.

### 3. Internal and external factors interfering in fertilization capacity

The factors that interfere in male fertility represent public health issue and, in view of this, preventive actions are necessary to avoid the emergence of diseases.

Male reproductive health involves delicate and complex processes that depend on perfect development and organization during the fetal period and puberty<sup>(2)</sup>, and any mistake can result in genetic and hereditary faults<sup>(16)</sup>. Despite this, the factors of environmental and occupational risk have been the main causes of male infertility<sup>(1)</sup>. As noted in the following lines, respondents show knowledge about the factors that influence the ability of fertilization:

If you are with lack of hormone, or hormonal weakness, your fertility decreases [...]. (H3, 23 years)

Sometimes it may be that the person has a tendency, [...], sometimes the person, her body is minimal, and so to get pregnant, it is very little chance. (H1, 35 years)

He you cannot smoke or use drugs, because I know that detonates the entire body, [...], the smoke also causes there "heretical-dysfunction". (H9, 18 years)

THE s drugs, alcohol it destroys [...] things of the human body, cells [...] should be aware that [...]. (H19, 18 years)

The temperature put hot things hot I cannot {...} Work with computer in my lap [...]. (H3, 23 years)

Some kind of STD should also get in the way, then why some of them cause infections that affect production. (H17, 30 years)

Such lines will meet than is explained in the literature to describe the causes of infertility<sup>(1,3,16)</sup>. These factors can cause changes in both production as in sperm quality, and may be absent or transient decrease in sperm count in the semen. However, there is the possibility of reversal of

the condition, which involves an adequate attention to reproductive health.

### 4. Lack of information on male fertility and difficulty in seeking help

One of the Government priorities, established by MS in the last decade, the National Policy of Integral attention to health, has been developed in partnership between managers and other civil societies, assuming the commitment to promote reproductive health rights of women and men in national and international<sup>(17)</sup> by means of humanizing strategies linked to the principles of the SUS.

In speaking of the participants, is the recognition that still lack commitment to disseminate information in relation to human health care, distinctly what happens to women's health:

Is different what happens to the woman. I see that people have little announcement, hardly do you see advertisements on TV, radio. Always is woman, who is talking about mammography, go to the gynecologist, on various diseases. Now us! [...] (H17, 30 years)

N will know if this class is prepared to pass it to you. So, sometimes, if you have a poster there, something like that, men will find more, many men would want to know about it [...] I think it's very little campaign to make on the subject. (H10, 35 years)

By this perspective, one can understand that the needs are inherent in access, quality of the assistance, which adds to the little participation, to little interest and commitment of the men on this issue. It is worth noting, however, that the recognition of the need for greater information to health care on the part of respondents can already regarded as a breakthrough, as it is important step in meeting the search needs.

Ignorance about infertility also pervades by continents. In Pakistan, from the consideration that this is a medical problem, with significant social repercussions and feelings of personal failure, a study was conducted with 447 adults, indicating that knowledge is limited and that a series of misconceptions and myths are present<sup>(18)</sup>.

In this respect, the promotion of health acquires important role, since the males, for sociocultural issues, tend to assume risk

behavior to health and life, once, taking into account the model of masculinity, they think they're invulnerable to them<sup>(19)</sup>

But for the man is very difficult [...] He is very shy, afraid to reach out and change your mind about these things, even when you have a sexually transmitted disease is ashamed to go to the doctor [...] If there is a female prevention, should have a male also prevention. (H2, 27 years)

[...] I am sincere in saying that most people will only have greater knowledge if it really happen to them, because if you do not have some kind of problem you are not going to delve into this subject. (H4, 34 years)

Understanding the cultural barriers would facilitate, surely the men access to health services, which is the great challenge for the current national health policy that aims to achieve the right to citizenship. However, by referring to the sexual and reproductive rights, this policy has regarded as main alert the responsible parenthood, along with participation in reproductive planning with emphasis on contraceptive practices. Although the issue of infertility not directly explained, is part of the right to citizenship and of access to different technologies to health care, guaranteed by the Federal Constitution. In this context, the health education becomes an important element to considered, since it has found that, when there is knowledge, expands membership of health-promoting practices<sup>(20)</sup>.

## FINAL CONSIDERATIONS

In the present study, when you analyses the statements that expose the optics of men about the fertilization and the factors that interfere, noted that respondents to such distinct senses

condition that reveal the social and cultural values rooted in your imagination. For the respondents, the ability of fertilization related to masculinity, with how to maintain the marriage and offspring. In this perspective reveals itself as a condition inherent in the cycle of life, you can assume that a deviation in this sequence is characterized as the expression of a need that needs to be upheld by the health services, whereas, currently, if offers a wide technology in different modalities capable of supporting her.

He adds that, while respondents reveal some aspects of this fertilization process and the factors that interfere manifest beliefs that distance themselves of scientific principles. Therefore, it seems appropriate that the health actions initiated by education, with a view to equipping men for decision-making and for searching for health care whenever they consider it convenient and, especially, are conducted in a manner free of prejudices.

Highlights therefore the need to work with actions in health that behold the man as subject, broader, from their reality, their values, their beliefs and customs so that the goal is more close to reality and reached.

On the other hand, the results of this study also show that respondents did identify the gap in healthcare and punctuate the need for greater information and strategic actions to this end, what reveals itself as an important step in the pursuit of greater care with health and well-being.

Finally, it expected that, with such data, it is possible to give greater visibility to the needs of men, from their own vision, contributing to the development of actions in line with public policy.

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## CAPACIDADE DE FERTILIZAÇÃO NA ÓTICA DE HOMENS DE 18 A 35 ANOS DE IDADE

### RESUMO

A infertilidade masculina vem aumentando gradativamente e atinge grande quantidade de homens, interferindo em suas condições de vida e de saúde. O objetivo do presente estudo é analisar o significado da capacidade de fertilização e os fatores que nela interferem a partir da ótica de homens de 18 a 35 anos. Trata-se de um estudo qualitativo, realizado a partir de entrevistas semiestruturadas com dezenove trabalhadores de quatro empresas com distintas características. Na análise dos dados, pautando-se pela análise de conteúdo na modalidade temática, foi possível construir as seguintes categorias: "O valor atribuído à capacidade de fertilização", "Mitos e verdades sobre o funcionamento do corpo para a fertilização viável", "Fatores internos e externos interferentes na capacidade de fertilização" e "Carência de informação sobre a fertilidade masculina e dificuldade em procurar

ajuda". Evidencia-se a necessidade de ações em saúde que contemplem a ótica da integralidade a partir da realidade vivenciada, dos valores e das crenças.

**Palavras-chave:** Saúde do homem. Fertilidade. Promoção da saúde.

## CAPACIDAD FECUNDANTE EN LA PERSPECTIVA DE HOMBRES DE 18 A 35 AÑOS DE EDAD

### RESUMEN

La infertilidad masculina viene aumentando gradualmente y afecta a una gran cantidad de hombres, interfiriendo en sus condiciones de vida y de salud. El objetivo de este estudio ha sido analizar el significado de la capacidad fecundante y los factores que la interfieren a partir de la perspectiva de hombres de 18 a 35 años. Se trata de un estudio cualitativo, realizado a partir de entrevistas semiestructuradas con diecinueve trabajadores de cuatro empresas con distintas características. En el análisis de los datos, basándose por el análisis de contenido en la modalidad temática, ha sido posible construir las siguientes categorías: "El valor atribuido a la capacidad fecundante"; "Mitos y verdades sobre el funcionamiento del cuerpo para la fecundación viable"; "Factores internos y externos que interfieren en la capacidad fecundante" y "Carencia de información sobre la fecundación masculina y dificultad en buscar ayuda". Se evidencia la necesidad de acciones en salud que contemplem la perspectiva de la integralidad a partir de la realidad vivida, de los valores y de las creencias.

**Palabras clave:** Salud del hombre. Fecundación. Promoción de la salud.

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