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Holistic care of Sexual Minorities such as Intersex in Family Medicine: Case Study

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ABSTRACT

Introduction

Intersex is a group of individuals whose sexual characteristics do not correspond to the typical and binary norms of male or female. It is estimated that approximately one person in 2000 is intersex. Worldwide, the proportion of births of intersex children is between 0.05 and 4%. Social life imposes certain choices, such as the choice of male or female sex, which is why so many families end up having their intersex children operated on in order to assign them a single sexand thus respect the norms of sexual life. The aim of this study is to describe a holistic care for the case of intersex.

Patient presentation

This study concerns a 14-year-old intersex, the only child in the family, who received a home consultation as part of Family Medicine to determine his biological sex.

Conclusion

This study has allowed us to know in depth intersexuality as a type among sexual minorities, with very clear knowledge on its biopsychosocial management.

1. INTRODUCTION

Intersex is a group of individuals whose sexual characteristics do not correspond to the typical and binary norms of male or female [1]. Therefore, an intersex (androgynous) person is an individual with a female body with chromosomes associated with the male sex (XY) or a male body with chromosomes associated with the female sex (XX). These individuals have a genital system that does not correspond to the accepted norms for establishing whether the individual is male or female [2].

Sexual characteristics in intersex people can concern primary sexual characteristics (internal or external genitalia, reproductive systems, hormone levels, and sex chromosomes) or secondary sexual characteristics that appear at puberty. It is more the biological characteristics and not gender identity that are concerned by intersex. An intersex person may have a sexual orientation of heterosexual, homosexual, or other depending on whether he considers himself a man or a woman [1].

Intersex or intersexuality can be clearly visible at birth or develop later in adolescence. An intersex with the absence or rudimentary presence of the ovaries and the uterus is practically sterile [3].

It is estimated that about one in 2000 people are intersex. Worldwide, the proportion of births of intersex children is between 0.05 and 4%. Intersex rights organizations state that the prevalence of intersex worldwide is higher than what is found in the literature because this prevalence only includes people with immediately visible ambiguity at birth (thus ignoring those who

develop it at puberty), in addition, hospitals that do not perform sex reassignment operations with appropriate services do not record these cases of intersex [3-6].

A study published in the journal "American Journal of Human Biology", synthesized articles from 1955 to 2000, and drew up detailed statistics for the different possible criteria of deviation from an ideal male/female type and concluded that 2% of intersex births. In Africa, the prevalence of intersex is almost unknown; South Africa is said to have a relatively large number of individuals born intersex, with estimates of one birth in a thousand [6, 7].

Social life imposes certain choices such as the choice of male or female sex, which is why so many families end up having their intersex children operated on in order to assign them a single sex, and thus respect the norms of sexual life.

These medical interventions are performed on intersex children at a very young age, with the authorization of their parents and outside the choice of sex that the child desires (outside their opinion). For an adult, they can define themselves as a man or a woman depending on their choices or feelings, because there is no gender, nor relationship to sexuality when we talk about intersex [3, 5].

The surgical procedure often includes reducing the size of the clitoris, removing the gonads (ovaries or testicles), surgery to make a new vagina, or to normalize it or even remove it, the same for the penis. These surgical procedures can have serious consequences (nerve damage, insensitivity, scarring, lifelong hormonal treatment) for the people who undergo them [1, 3].

The aim of this study is to describe a holistic management for the case of intersex.

2. PATIENT PRESENTATION

2.1. Subjectively

Patient "G" aged 14, only child in the family, received for a home consultation as part of Family Medicine on July 27, 2024, to determine his biological sex.

A student in the seventh year of secondary school, he considers himself male according to his parents and the fact that he urinates like a man, although the shape of his penis does not allow him to clearly say whether he is a man or a woman.

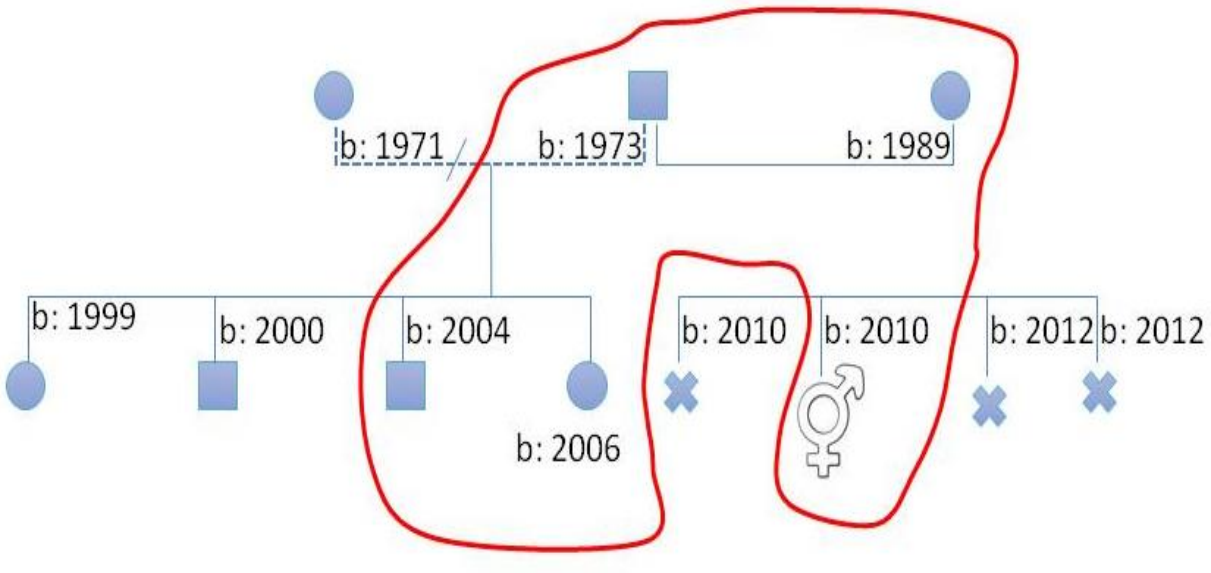
The patient complains about the development of his breasts and the start of his period, which he had menarche on July 3, 2024.

The history goes back 14 years from the current consultation with the birth of a newborn with genital malformation, revealing a rudimentary penis (very developed clitoris) and a less developed vulva and vagina. The doctor diagnosed him with hermaphroditism according to the mother and recommended corrective surgery, which was not done due to lack of means. On the other hand, the child has successfully undergone several modern and traditional treatments without success, and to the detriment of the family economy. The patient states that he grew up with the idea of being male because he urinates like men, and his parents raised him as such. However, he is upset by the beginning of the development of his chest (breasts) and the beginning of his period (menarche); reason for the consultation to determine his true sex.

For the family, what is happening to their child is the result of curses from the maternal family because the mother's dowry was not given in full, according to the child's father. And, for the mother, the child's father's impurity while she was pregnant is the root of the problem.

As for the patient himself, he has faith in his God whom he serves night and day, and he knows that he will eventually be cured of this disease. He wants to regain his masculinity in order to continue playing ball with his friends.

2.1.1. Family tree: genogram



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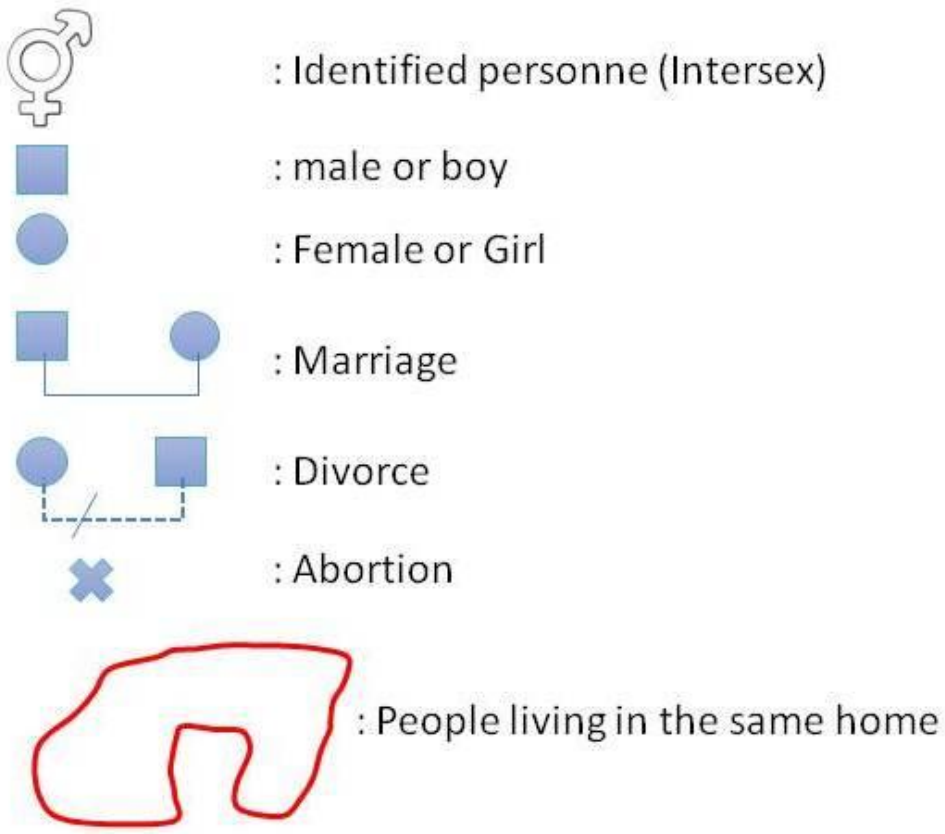
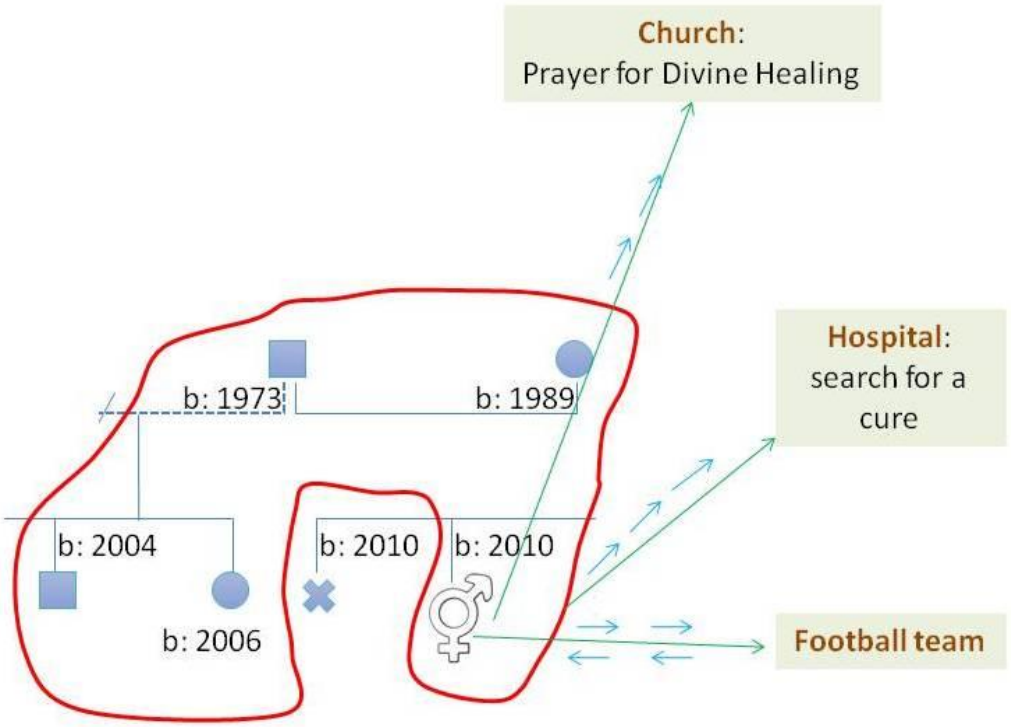


2.1.2. Ecomap



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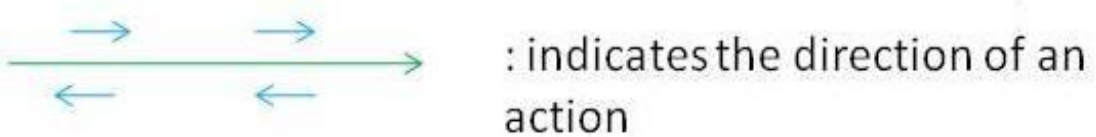
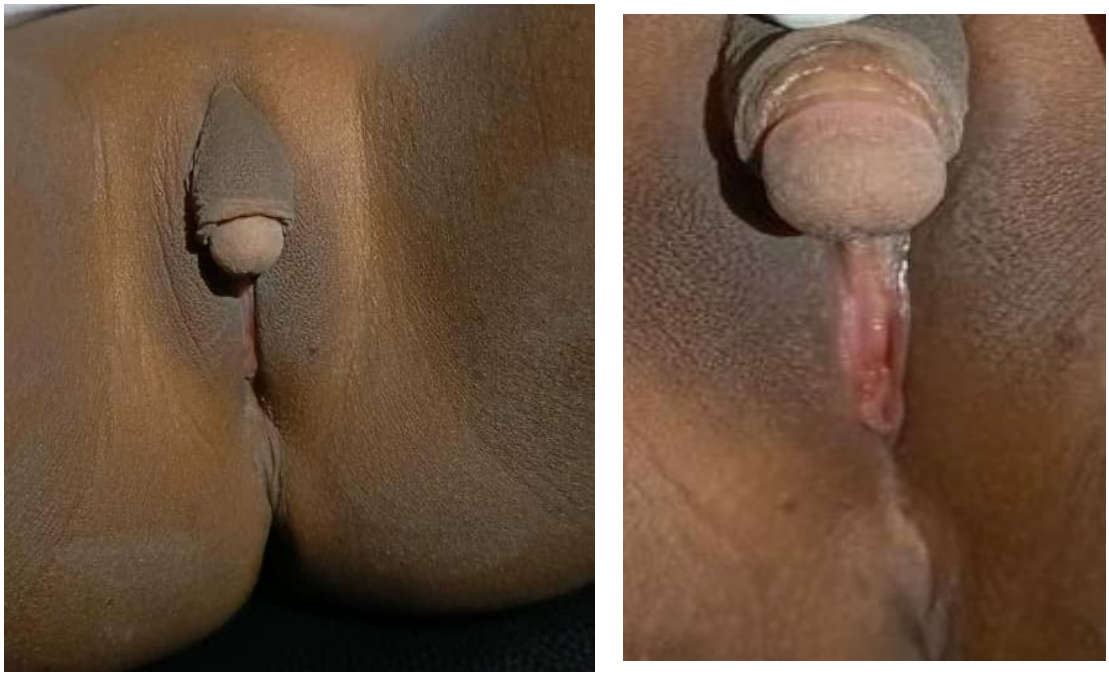


2.2. Objectively

Objectively, the height is 1.50 m, the weight is 45 kg, the Body Mass Index (BMI) is 20 kg/m2, the blood pressure is 100/60 mmHg, the temperature is 36°C, the pulse is 88 beats/min and the respiratory rate is 22 cycles/min, the patient is lucid and coherent, afebrile on palpation, the palpebral conjunctivae are normally colored and the bulbar anicteric.

The cardiorespiratory examination is unremarkable, and the examination of the abdomen is marked by a strong sensitivity in the epigastrium.

On locoregional examination, we note a clean vulva without hair, with large and small lips less developed for her age, and a very narrowed vaginal canal, not allowing to see the hymen (or the interior). At the location of the clitoris, we visualize a less developed penis, about 4 cm long with foreskin and urinary meatus. The scrotum and testicles were not visualized.



Genitals of the 14-year-old Intersex

At the chest level, we note the two breasts slightly developed for a boy and the size of a tangerine. We note on palpation, the presence of glands comparable to the breasts of a teenage girl. Elsewhere, we note the total absence of sexual characteristics such as hair, beards and others.

2.2.1. Paraclinical examinations

- Abdomino-pelvic ultrasound;
- Karyotype test;
- Hormone dosage.

NB: no examination was carried out.

2.3. Assessment and management

LEVEL	APPRECIATION	CARE PLAN
Clinical	Intersex Sexual Minority	1. Medical-surgical treatment: ➢ Sex reassignment surgery; ➢ Hormone therapy. 2. Psychosocial treatment: ➢ Explain to the patient and his family what sexual minority is, specifically Intersex; ➢ Show the patient that he must consider himself by stopping being ashamed of himself first, and accept himself as such. Make him understand that he is free to choose any other sex by accepting surgery with its side effects, or to accept himself as a non-binary person (intersex) by braving rejection and social humiliation.

		➢ To the family to accept their children as a human person, member of the family and put aside any question of gender.
Individual	The patient regrets the presence of breasts and menstruation. He is afraid of losing his masculinity.	Show the patient that gender is not necessarily reduced to the sex and morphology of the person, rather it is a state of mind. If he considers himself a man, he will remain so even in the presence of breasts and other feminine characteristics.
Contextual	The patient's father blames the in-laws, while the patient's mother blames her husband.	Explain to the patient's father and mother that intersexuality has existed since time immemorial, and it is in no way linked to the anger of the in-laws, much less to the man's immodesty.

2.4. Learning Need

What is the holistic management of sexual minority of the intersexuality type in Family Medicine?

2.5. Literature Review

Intersexuality being the presence in the same individual of male and female sexual characteristics, prevents the person concerned from being designated as a man or a woman. Unlike hermaphroditism which is a form of sexual reproduction in the same individual, intersexuality results from an anomaly of sexual differentiation. In addition, the fact of possessing only the modifications of secondary sexual characteristics, reflecting an apparent inversion of sex, like castration followed by gonad transplantation or injections of sex hormones, does not classify the individual among intersex [8].

Understanding the phenomena of intersexuality requires a good knowledge of other scientific information such as sexual differentiation, the anatomy of intersex and also the biology of intersex.

2.5.1. Biology of intersex at the genetic, chromosomal and hormonal level

It is at the time of fertilization that the sex of an embryo is determined. And at the 7th week of prenatal development that the gonads differentiate into testes or ovaries. The Mullerian ducts will be at the origin of the female genital tract and the Wolffian ducts will give rise to male genital tract [9].

This sex determination depends on the distribution of the sex chromosomes X and Y, and in particular by the SRY gene of the Y chromosome. The egg being genetically homogametic in the female (XX), and heterogametic in the male (XY), it is likely to produce either a male or a female; but variations in embryo development can lead to phenotypes that fall outside the male-female bicategorization [8,10, 11].

It is not at the beginning of embryonic development that genetic determination manifests itself. It is the result of a succession of complex phenomena that will produce the male and female morphology of an individual [8].

After fertilization, the organogenesis of the genital glands and ducts begins, which are referred to as "primary sexual characteristics". In the embryo, regardless of the genetic sex (XX or XY), a double assortment of sketches is built that includes the elements necessary for the production of a male genital system and a female genital system. This constitutes the similar development phase called the "phase of indifference or sexual bipotentiality". Then in the phase of sexual differentiation, we see the development of one of the two systems and the atrophy of the other [8].

The external genitalia that extend the genital tract are also bipotential at the time their outlines appear. The development or regression of one of the two genital systems (male or female) is determined by sex hormones.

In summary, an individual can have XX chromosomes and develop a phenotype corresponding to male norms, similarly, an individual with XY chromosomes can develop sexual characteristics corresponding to female norms [11]. Explicitly, the SRY gene can appear on the X chromosome, leading to an XX embryo, which develops the so-called male anatomy and is assigned a boy at birth. The SRY gene can be missing or have a variation, leading to an XY embryo, which does not develop the penis (of normal size) and is assigned a girl at birth [9, 12].

Regarding hormones, intersex individuals produce higher levels of testosterone or estrogen, just as there may be low or zero production [13, 14].

2.5.2. Anatomy of the intersex

There are many recorded cases of intersex in the animal kingdom, notably in pigs, cows, deer and others, but also in humans. These individuals have either mixed genital glands possessing at the same time the structure of an ovary and a testicle, and mixed genital ducts, or separate genital glands and separate genital ducts [8].

The anatomy of intersex states allows, by identifying the level of implantation of the Miillérian cavity and by describing the different anatomical types, to guide genitoplasty and to assess its indications [15].

Anatomically, there is not a single anatomy of an intersex person, but rather a multitude of possible anatomical variations. These variations can be slight and difficult to see, or more pronounced and easily detectable with the naked eye [2, 16].

During adolescence, depending on the sex chromosome variations in some intersex people with a male morphological appearance (XY chromosome), they may have breast enlargement, a less muscular body and body fat redistributed according to a female morphology [6, 9, 17].

2.5.3. Diagnostic method of intersex

- Karyotype test: to determine the patient's chromosomes;
- Abdominopelvic ultrasound: to look for gonads, testicles and/or ovaries;
- Hormonal dosage: testosterone and estrogen.

2.5.4. Management

For any intersex person at non-adult age (18 years), the decision and authorization for any management is the responsibility of the parents. Something that many intersex rights associations fight against, because the consent of the person concerned, even less the choice of the desired sex, is not taken into account. Later, many adult intersex people believe that the decision for any management was a mistake by their parents, this distances the parents from their children [18].

2.5.4.1. Medical management

Management is multidisciplinary and must be holistic, taking into account the biological, psychological and social (biopsychosocial) aspects.

2.5.4.1.1. Surgical treatment

It is preferable to operate on the genital tract of an infant than on that of an adolescent, to avoid adverse effects on the child's emotional, sexual and cognitive well-being. It should be noted that the advantages of surgery performed very early on an intersex person do not outweigh its disadvantages [19, 20, 21].

A. Clitoral surgery

Clitoral reduction or recession (clitorophostia) is indicated in intersex infants and children with CAH with hypertrophied clitoris and XX chromosomes. In general, this procedure consists of covering the clitoris without the inner labia [22].

B. Vaginosplasties and dilations

Indicated in intersex children with HCS, closed vagina, vagina with too narrow an opening, or the urethra opens at an unusual location [22].

The procedure consists of creating the artificial vagina if it is absent, or dilating it if it is too narrow, and changing the location of the urethra [22].

C. Gonadectomies

Surgical removal of the gonads (gonadectomy) is irreversible. Testicular gonadectomy is indicated in cases of ICA or IPA syndrome diagnosed if the child is raised as a girl, or in intersex women with an ovo-testicle [23, 24].

The treatment strategy must correspond to the assigned sex. Indeed, for children assigned to the male sex, orchidopexy (fixation of the undescended testicles in the scrotum) is required, and gonadectomy for children assigned to the female sex [25, 26].

D. Correction of hypospadias

Surgical interventions for correction of hypospadias aim to replace the urethra in its usual position on the penis of the infant or child. Plus the glandular and distal hypospadias that are affected [27, 28].

2.5.4.1.2. Hormonal treatment

Often combined with surgical treatment, hormone therapy is the main treatment for intersex children. It is urgent and essential. This treatment includes:

- hormone replacement therapy (HRT);
- the onset of puberty in cases of hypogonadism (reduced gonadal activity) and, sometimes, the inhibition of puberty [29, 30, 31].

As soon as the diagnosis is established, cortisol must be administered, then throughout life [29, 30].

2.5.4.2. Psychological and social care

Psychological support must be an integral part of the follow-up of intersex people. The work of the psychologist is crucial for the parents, and even for the person concerned. It is necessary to convince the parents to accept their child and to consider him or her as a human being and not an aberration of nature. And, the person concerned must also assume responsibility and accept himself or herself as such. He or she must not define himself or herself according to the judgments of the family or society.

2.6. Application of the results in practice

In practice, it is necessary to :

- Calm and reassure the patient and family that intersexuality has nothing to do with bad spells or curses;
- Explain what sexual minorities are with emphasis on the intersex type by differentiating it with gender, transsexuality and hermaphroditism;

- Show the different treatment options while emphasizing the side effects, risks and complications;
- Demonstrate that it is possible to choose one sex by opting or not for sex reassignment treatment, or to accept oneself as such;
- Carry out the various assessments;
- Establish the treatment in agreement with the person concerned or their family.

2.7. Conclusion

2.7.1. What we learned from the study

This study has allowed us to know in depth intersexuality as a type among sexual minorities, with a very clear knowledge on its biopsychosocial management.

2.7.2. Recommendation

We recommend that medical professionals provide the patient and family with comprehensive information on the side effects, complications and risks of the different treatments offered; and to give sufficient time for reflection for a responsible choice of treatment on the part of the patient or family.

In any case, the care must correspond to the desires and expectations of the patients. In addition, the healthcare professional must always keep in mind that this care is not urgent.

2.7.3. Principles of Family Medicine

The principles of family medicine that we have applied are as follows:

- The family doctor is an eternal learner;
- The family doctor is led to the person rather than to a particular set of knowledge, a group of diseases, or a particular technique;
- The family doctor sees his patients as a population at risk;
- The family doctor seeks to understand the context in which the disease occurs.

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CONTRIBUTION OF THE AUTHORS

MKK conceived the idea, carried out the study, and wrote the first draft of the manuscript; NLM, LMJ, MBS read, corrected and approved the manuscript.

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