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Knowledge and opinions of medical staff on Natural Fertility Awareness Methods

1. Introduction

From the moment of conception, a human is male or female, man or woman. Gender affects the whole human being - a bodily, but also mental and spiritual sphere; cognitive and emotional. Gender penetrates thinking, feelings, actions. Human is a personal being. The essence of human sexuality is an openness to another person. "It is not only about man's openness to woman and woman to man, but also about the openness with a universal dimension - the openness for every love" (Augustyn, 1993, p.16).

Love is fertile in its nature. Fertility is not an addition to the love of two people, but it is a visible manifestation of femininity and masculinity. According to the Christian anthropology, one can say, that a core of femininity and masculinity, of those two poles of one human reality, is directed to the shared experience of love (Augustyn, 2014, pp. 225-234). Fertility is an inherent part of loving and an incredible gift for a mature woman and for a mature man (Rybak, 2010). In other words, fertility and love are inseparable. They are united by the male and female sexuality and emotionality.

Natural methods of fertility awareness are the methods based on self-observation and the ecological lifestyle of a woman, compatible with her physiology. Applying these methods requires an intimate knowledge of body's rhythms of fertility. A woman has to listen to her body and adjust a cohabitation to the rhythms of fertility by a periodic abstinence (Kinle, 2008, pp. 161-186). Fertility of a woman is cyclical, depends on the hormonal changes that occur during every menstrual cycle and lasts from the moment when cervical glands start to secrete a fertile cervical mucus, until 24 hours after ovulation. A healthy man is always fertile. His fertility is constant - from puberty until old age. Fertility of a pair depends on a lifespan of an ovum, a lifespan of sperm in a fertile mucus, and on an existence of a fertile mucus of a woman (Szymaniak, 2008, pp. 187 - 193).

An important and essential thing, in the subject of fertility awareness, is basic knowledge about functioning human organism in the field of anatomy and physiology of human reproductive system (Kinle, 2008, pp. 161-186; Deluga, 2008, pp. 151-160).

The fertility awareness methods include methods with one indicator (strict thermal method, the Billings Ovulation Method, Creighton Model Fertility Care System) and methods with many indicators (expanded thermal method, Sympto-thermal method). Between Sympto-thermal methods are: the sympto-thermal (double-check) method, the German sympto-thermal method by Rötzer, the American Kippley-Prem method, and the Polish method by T. Kramarek (Kinle, 2008; Deluga, 2008; Dudziak et al., 2006; Kinle et al., 2009, pp. 59-70; Lichtarowicz, 2010; Wójcik, 2014; Rötzer, 2007). The effectiveness of natural methods of fertility awareness and satisfaction with their use depends primarily on reliable knowledge, on the correct understanding of the instructions of the method and on the precise and systematic recording of observation. The mutual commitment and motivation of both men and women are also very important (Kinle, 2008, pp. 161-186; Lichtarowicz, 2010).

The advantages of natural fertility awareness methods may be classified into the category of values. The measurable values include:

- being in harmony with a natural fertility rhythm, promotion of a healthy lifestyle;
- not interfering in the physiological processes in the woman's body;
- the knowledge about physiological processes, greater self-awareness of procreation health;
- greater chances of early diagnosis in case of gynecological abnormalities;
- little or no financial outlay;
- promotion of stable and monogamous relationships which helps to reduce the spread of sexually transmitted diseases.
- The spiritual and moral values of natural fertility awareness methods are:
- respect for the biological, mental, social and spiritual integrity of a human person;
- promotion of conscious parenting, respect for a human expressed in an unconditional acceptance of a conceived child;
- education for responsibility, mutual respect between woman and man;
- strengthening relationship bond; (Rybak, 2010; Dudziak, Deluga, 2006; Troszyński, 2009; Kipplay, 2002).

One of the professional tasks of the medical staff (midwives, nurses and doctors) is health education and health promotion, with particular emphasis on procreation health. The above-mentioned health benefits of natural fertility awareness methods prove that the medical staff should be the first to promote the knowledge about these methods, as well as the first source of reliable education in this field. In this article, the authors undertook to examine the level of knowledge and opinions among medical staff about the natural fertility awareness methods.

Aims of the study: to determine what level of knowledge and what opinions about natural methods of fertility awareness present medical staff.

Materials and method: the study was made with the diagnostic survey method, using a questionnaire. A research tool was a self-constructed questionnaire with 40 questions - close-ended and semi-closed, of a single choice and multiple choice. In the questions concerning knowledge were provided indicators of the level of knowledge - high between 7 and 10 points (70% - 100%), average between 4 and 6 points (40% - 60%), low between 0 and 3 points (0% - 30%). In the question about the opinion, the five-level Likert scale was used (from complete rejection to full acceptance).

The study group included medical staff from Warsaw hospitals. Participation in the study was voluntary and anonymous (the completed questionnaire could be returned to a special closed box which was placed in an accessible place).

The group of dependent and independent variables, and detailed indicators were defined before the study was undertaken (tab. I).

Table 1a. Variables and indicators

Variables	Indicators	
Independent	Age	Up to 25 years 26-30 years 31-40 years 41-50 years 51 years and more
	Sex	Female Male
	Marital status	Single Partnership (unmarried) Married Widow / widower Divorced or after the annulment of the marriage

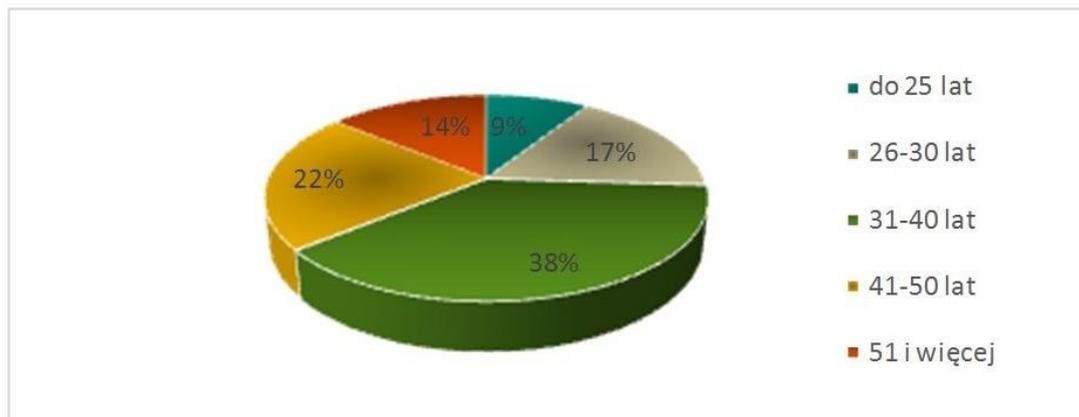
Table 1b. Variables and indicators

Variables	Indicators	
	Occupation	Doctor Nurse / Male nurse Midwife / Male midwife Nursery nurse Dietitian Physiotherapist Other.....
	The educational attainment	Secondary education Bachelor Master Ph.D. Other.....
	Job seniority	Up to 2 years 2-5 years 6-10 years 11 years and more
	Having children	Yes, one Yes, two Yes, three or more No, but I want to have children No, I do not want to have children
	Using of natural methods	Yes,. What kind of method..... No
Indirect	Values in life	Wisdom / Love / Hope / Independence / Homeland, patriotism / Passions and Adventure / Money and prosperity / Friends / Family / Personal development / Sex / Strength / Professional fulfillment / Respect / Honesty / Faith / Loyalty / Appearance / Education / Health
Dependent	The level of knowledge	High / 7 - 10 p. Average / 4 – 6 p. Low / 0 – 3 p.
	Opinions	Definitely yes Rather yes I have no opinion Probably not Definitely not

2. Characteristics of the respondents

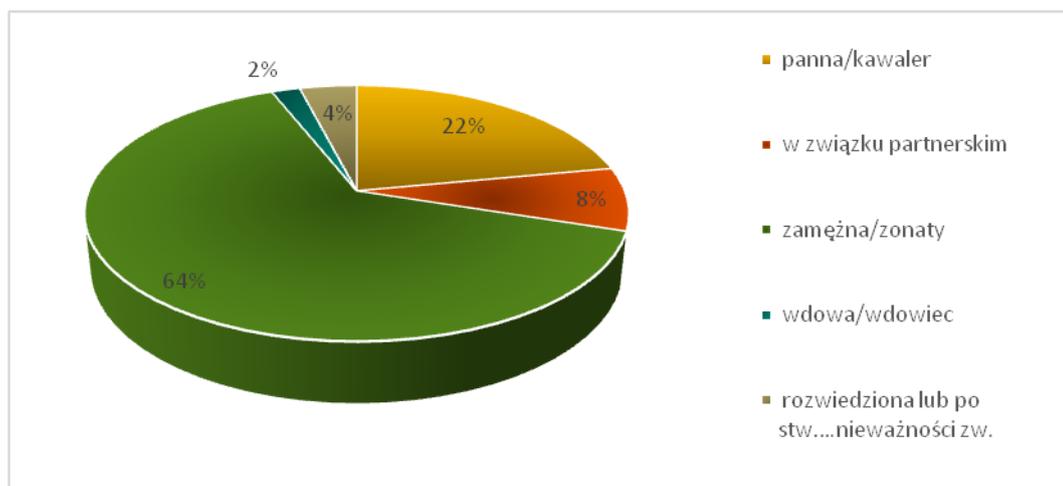
The study included a group of 100 people. The largest group was people aged between 31-40 (38%) and 41-50 (22%). Then, groups aged between 26 - 30 (17%), over 51 (14%) and people up to 25 (9%). (Fig. 1) The vast majority were women (92%).

Fig. 1. Age distribution of the respondents



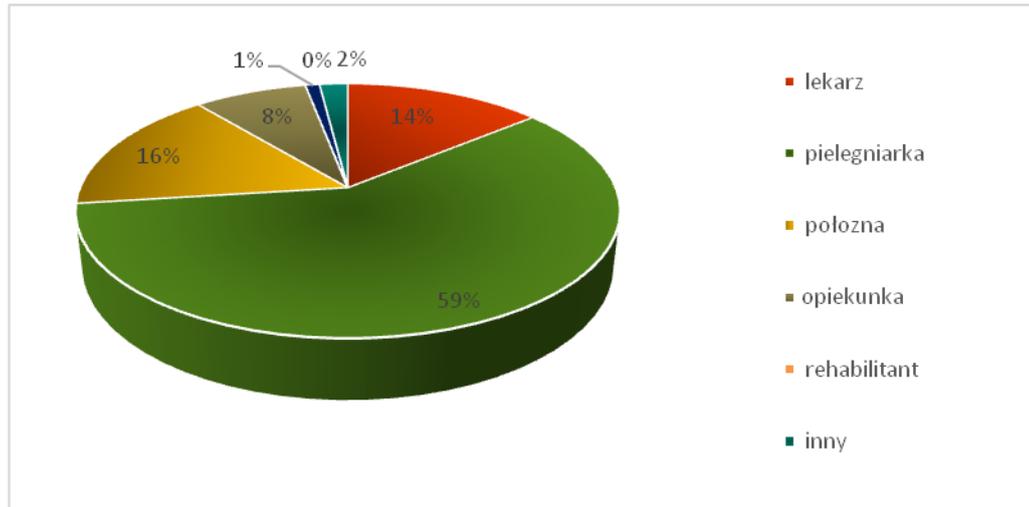
Most of the respondents are married (64%). The 22 % are single and 8% declare being in the partnership. A small percentage is divorced (4%) and widowed (2%). (fig. 2)

Fig. 2. Marital status of the respondents



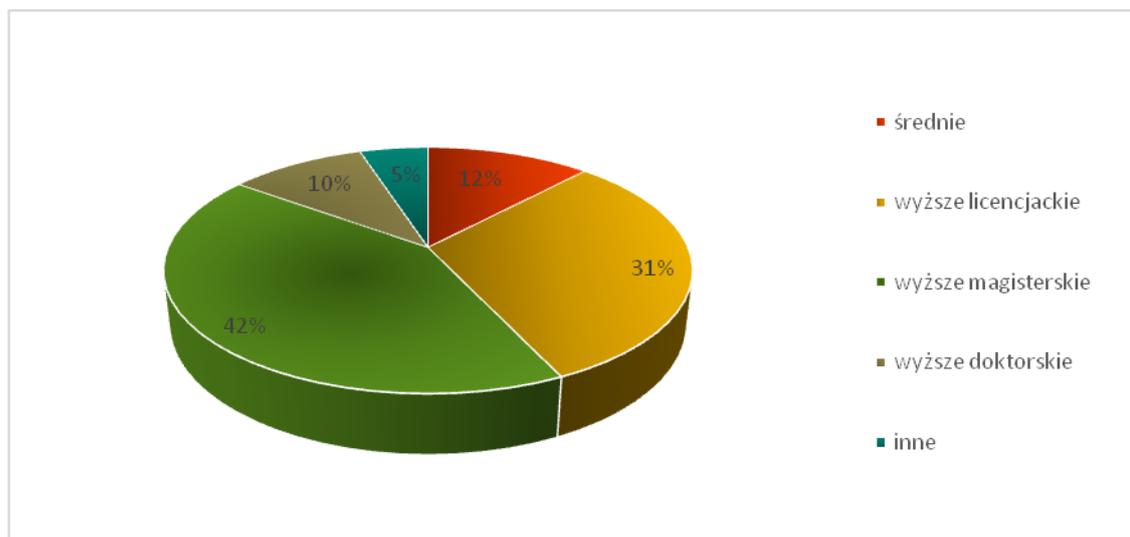
The characteristic of the professional situation of the respondents was as follows: the largest group were nurses (59%). Then, midwives (16%), doctors (14%), nursery nurses (8%) and representatives of other medical professions (3%). (fig. 3)

Fig. 3. The occupation of the respondents



The educational attainment of the respondents is as follows: the largest group declares to have a master degree (42%). 31% of respondents are bachelors 12% have secondary education, 10% have doctor's degree. (Fig. 4).

Fig. 4. The educational attainment of the respondents



The characteristic of the tested group concerning the number of children shows that the largest group of respondents has 2 children (29%), then, are parents of 1 child and

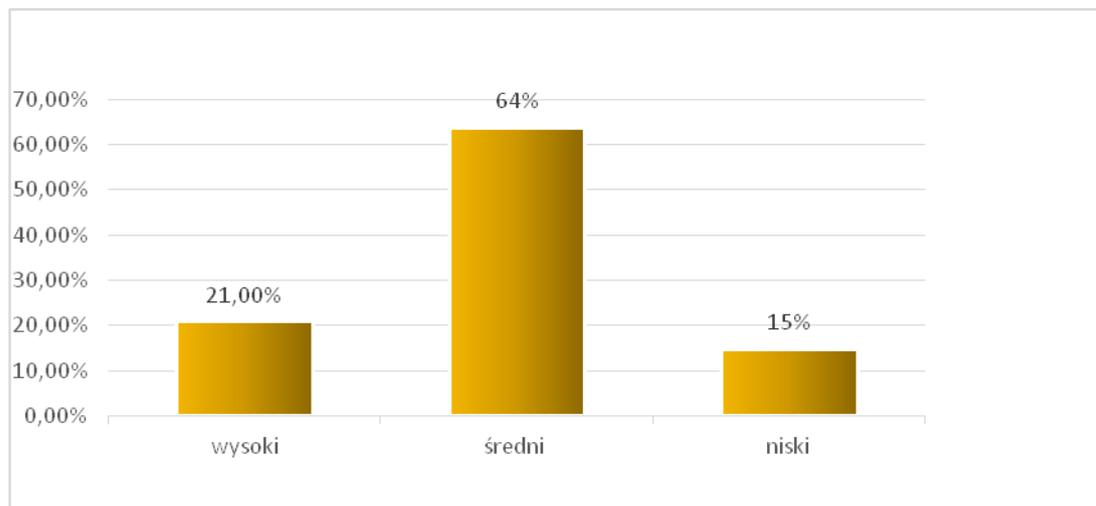
childless people who want to be a parent in future (both groups 28%). 10% of the respondents have 3 children. 5% is childless and have no plans to have children in the future. 26% of the respondents claim to use the natural fertility awareness methods.

3. The results

1.1. The level of the knowledge of the respondents about the Natural Fertility Awareness Methods

The general knowledge of the respondents about the natural fertility awareness methods is as follows: the largest group of the respondents (64%) shows the knowledge on the average level, 21% demonstrate a high level of knowledge, the level of 15% of the respondents is low. (fig. 5)

Fig. 5. The general knowledge of the respondents



A careful analysis of the correctness of the selected responses shows the following facts: 35% of the respondents correctly specify the time of the egg's ability to fertilize, 64% correctly determine the main symptoms of fertility in the woman's hormonal cycle, 84% properly describe fertile mucus as an indicator of fertility, 25% correctly define the so-called "fertile window" so the fertile time for a pair in the cycle.

1.2. Respondents' opinions on the Natural Fertility Awareness Methods

The description of the opinions focuses on the most frequent answers. A complete data is shown in Table II.

Table II. Respondents' opinions on the Natural Fertility Awareness Methods

No.	Questions or Statements	DEFINITE LY NOT	RATHER NOT	I HAVE NO OPINION	RATHER YES	DEFINITE LY YES
1.	Are you interested in human fertility?	2%	40%	7%	39%	12%
2.	Can you interpret the menstrual cycle chart on which BBT and the quality of cervical mucus are marked?	8%	17%	11%	56%	8%
3.	The NFAMs are popular in your environment	9%	42%	24%	22%	3%
4.	The NFAMs can be said to be one of the methods of contraception	16%	17%	8%	47%	12%
5.	The NFAMs is an effective method of fertility diagnosis	7%	14%	22%	46%	11%
6.	The observation of symptoms requires commitment, but it becomes easier over time	1%	10%	20%	51%	18%
7.	The observation of symptoms is too difficult, complicated, time-consuming / uncomfortable	11%	45%	16%	22%	6%
8.	The NFAMs are out-dated / old-fashioned	7%	24%	30%	33%	6%
9.	The NFAMs are used only by Catholics	10%	30%	20%	34%	6%
10.	In media, handbooks and medical journals the subject of the NFAMs is not often discussed	6%	9%	21%	53%	11%
11.	The NFAMs affect a relationship bond because they teach cooperation, mutual engagement, responsibility for fertility and for each other and a respect for a partner.	6%	9%	25%	36%	24%

No.	Questions or Statements	DEFINITE LY NOT	RATHER NOT	I HAVE NO OPINION	RATHER YES	DEFINITE LY YES
12.	The NFAMs reduce sexual satisfaction and spontaneity	7%	29%	21%	32%	11%
13.	The NFAMs require deeper involvement than using contraceptives	5%	16%	10%	40%	29%
14.	It is safer to use the NFAMs because of contraception side effects	4%	15%	25%	32%	24%
15.	The NFAMs are helpful in family planning	4%	16%	26%	39%	15%
16.	The NFAMs are part of a healthy lifestyle	3%	9%	25%	44%	19%
17.	Stress, bad nutrition, drugs have an impact on human fertility	2%	2%	4%	23%	69%
18.	The NFAMs promote self-awareness of a body and health	5%	4%	16%	34%	41%
19.	The NFAMs help with early diagnose and treat gynecological abnormalities	5%	12%	25%	28%	30%

More than half of the respondents (51%) declare to be interested in the issues of human fertility. 64% claim to be able to interpret the menstrual cycle chart, where Basal Body Temperature and mucus secretion are marked. More than half of the tested people say (51%), that the natural methods are not popular in their environment. 1/3 of the respondents think that the NFAMs are not the same as contraception. For 57% of the respondents, natural methods are effective in recognizing fertility.

The substantial majority of the respondents (69%) agree with the statement that the observation of symptoms requires commitment, but it becomes easier over time. 56% think that the observation of symptoms is too difficult, complicated, time consuming / uncomfortable. 39% of the respondents claim that natural methods are out-dated and old-fashioned.

A statement that natural methods are used only by Catholics shows a clear polarization between the respondents - 40% agree with that opinion, and the same percentage disagree.

64% say that in media, handbooks and medical journals the subject of the NFAMs is not often discussed. The majority of the respondents (60%) admit that the NFAMs have an

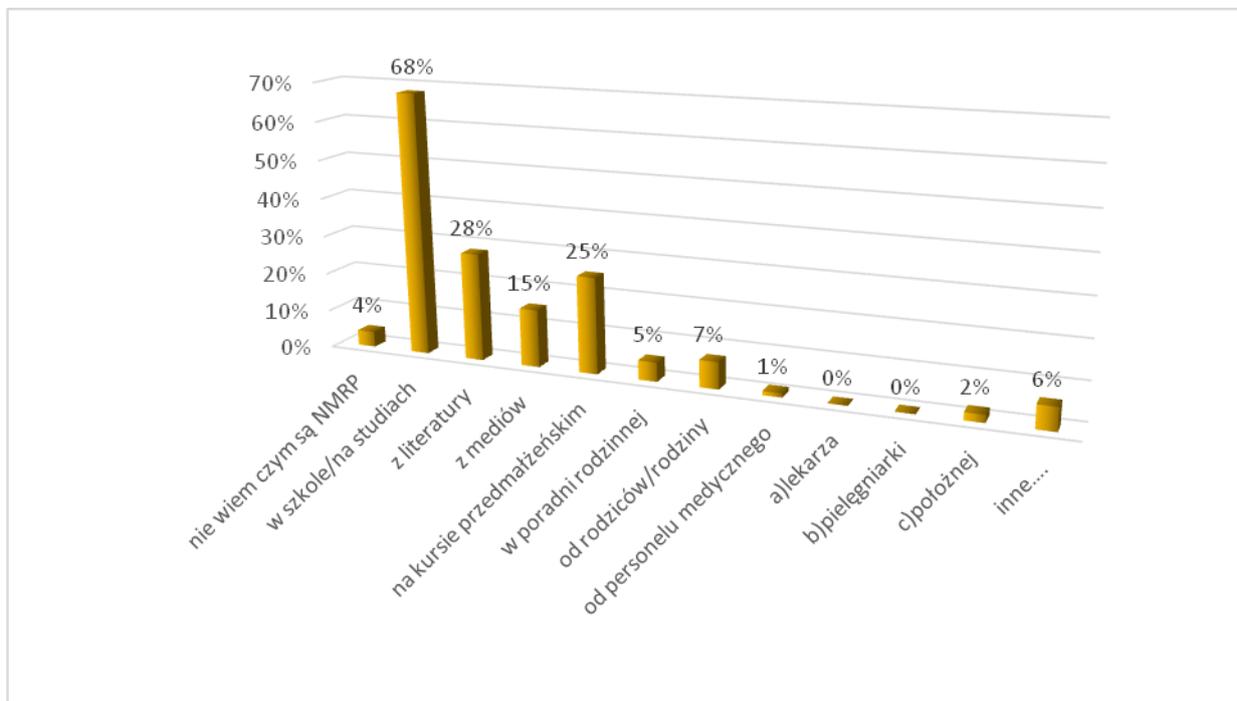
impact on relationship bond (teach cooperation, mutual engagement, responsibility for fertility and for each other and a respect for a partner). 43% claim that the NFAMs reduce sexual satisfaction. Most of the respondents (69%) believe that the NFAMs require deeper involvement than using contraceptives. 56% think, that it is safer to use the NFAMs because of contraception side effects. The greater number of the respondents (54%) positively refers to a statement that the NFAMs are helpful in family planning and that they are part of a healthy lifestyle (63%).

Almost all of the respondents (92%) agree that stress, bad nutrition, drugs have an impact on human fertility. 75% believe the NFAMs promote self-awareness of a body and health. More than a half (58%) claims that the NFAMs help with early diagnoses and treat gynecological abnormalities.

1.3. The role of medical staff in promoting the knowledge about the NFAMs

The results of the study show that the major group of the respondents gained the knowledge about the natural methods of fertility awareness from schools or university studies (68%), fewer of them from literature (28%) or during a training course (25%). 15% of the respondents acquired the knowledge from media. 3% learned about the NFAMs from the medical staff. (Fig. 6)

Fig.6 Respondents' source of the knowledge

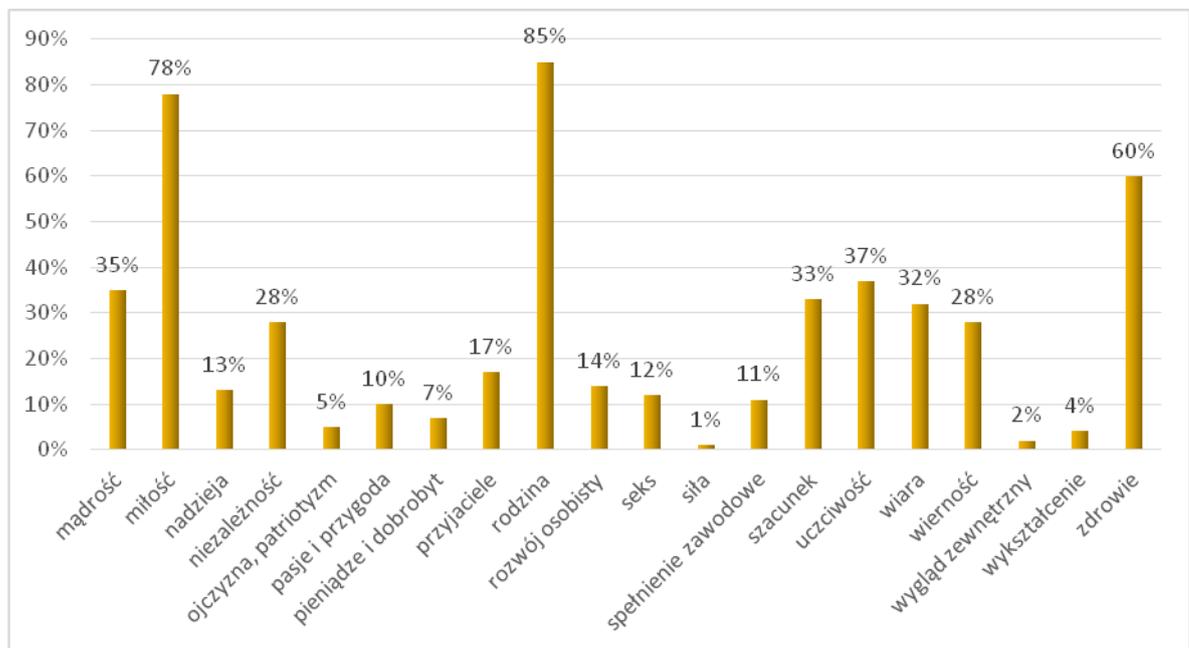


Only 8% of the respondents received information about the NFAMs from a gynecologist or other physician. 35% of them claim that they had not received information about the natural methods of fertility awareness. Most of the respondent (57%) had never asked the doctor about the NFAMs.

1.4. The system of values in the tested group

The most common values declared by the respondents are family (85%), love (78%), health (60%), honesty (37%), wisdom (35%), respect (33%) and faith (32%). (Fig. 7)

Fig. 7. The most important values



2. Discussion

Knowledge and self-awareness of a human influence his choices, shape his reality and constantly direct him towards development. An awareness of a body, its physiological processes and its spiritual and emotional needs is combined with an integral vision of a human. It follows and grows in respect to physiology and results in an inner harmony (Tataj-Puzyna, 2011). Aspect of human procreation is a controversial issue constantly recurring in the debate. For some people, procreation means giving life, for others it is purely biological process. In the biosphere, man is the only living being who is aware of his

freedom. Is he using this freedom wisely? (Dudziak, Deluga, 2006).

The aim of the study was to determine what level of knowledge and what opinions about natural methods of fertility awareness present medical staff. It was assumed that the knowledge of the staff was on the high level. The results show, that the highest percentage of the respondents (64%) has an average knowledge, 21% show the knowledge on high level and the knowledge of 15% is low. Thus, the hypothesis that the tested group should present a high level of knowledge has not been confirmed. However, it can be said that the overall level of knowledge of the respondents was satisfactory. The next issue of this work was to determine the clear picture about the opinions presented by the medical staff on the natural methods of fertility awareness. It was assumed that the opinions of the respondents would be divided. The results confirm the hypothesis, because the opinions about the NFAMs are, in fact, divided. 57% of the respondents consider the natural methods to be effective, however, as many as 78% of the respondents do not use them. Although 56% believe that it is safer to use the NFAMs because of contraception side effects, 46% of the respondents state, that very carefully used hormonal pill is a more reliable method than the natural methods, the group of 36% abstained from expressing an opinion.

It might be assumed, that the knowledge about the differences between the NFAMs and contraception is spread without sufficient precision. In the professional literature the natural methods are still considered as a contraception. From this perspective, it is not surprising that the results of the studies by Deluga and Aftyka show that a significant group of users of the natural methods associates them with contraceptives (Deluga, Aftyka, 2010, pp. 71-80).

In presented here research, 53% of the respondents consider natural methods to be a part of a healthy lifestyle and even 75% claim, that the natural methods promote self-awareness of a body and health. So, it seems that natural methods are worth recommending. Nearly half of the respondents (43%) recommend the NFAMs, however a large group of 45% of the respondents have no opinion on this issue. If the natural methods contribute to increase body and health awareness and if the role of medical staff is to explore the subject of health and of its promotion, then why medical staff do not promote natural methods? If they promote it why opinions about this issue are so divided?

According to the research conducted by Dębska et al., tested group of medical students mostly knew the basics in the field of woman physiology and fertility. Still, not all of the respondents knew, that an observation of the menstrual cycle might be helpful to detect many functional disorders and diseases of a reproductive system. The natural methods of family planning are (or will be) used by the minority of medical students (Dębska et al., 2017, pp. 141-147).

In presented here studies, only (or as many as) 26% of the respondents are using the natural methods of fertility awareness, it is, however, worth to notice that almost half of the tested group want to extend their knowledge on this subject. The research attempted to determine the respondents' source of knowledge about the NFAMs. It was assumed, that the first source was school and university studies. The research confirmed that hypothesis. The

major group of the respondents gained the knowledge about the natural methods of fertility awareness from schools or university studies (68%), fewer of them from literature (28%) or during a training course (25%). 15% of the respondents acquired the knowledge from media. It is unfortunate, that only 3% learned about the NFAMs from medical staff. 4% of the respondents did not know what the NFAMs are. It should be noticed, that some of the respondents admitted in the open questions, that they had learned about the natural methods from the questionnaire. Only 8% of the respondents received information about the NFAMs from a gynecologist or other physician. A large percentage (35%) claim that they did not receive information about the natural methods of fertility awareness. A vast majority of the respondents (57%) had never asked the doctor about the natural methods, what shows the lack of interest declared by 42% of the tested staff. Nevertheless, according to Deluga and Wiśniewska, the information on natural methods of fertility awareness is expected, primarily, from physicians, and then, from midwives and nurses (Deluga, Wiśniewska, 2011, pp. 91-104). Other authors report, that midwives, as professionals in reproductive health, are insufficiently involved in the process of education about natural methods of fertility awareness (Bączek et al., 2010, pp. 266–271).

According to this research, 64% of the respondents believe that in media, handbooks and medical journals the subject of the NFAMs is not often discussed. When looking for sources on natural methods of fertility awareness it should be noticed, that the most information was collected in books, articles, brochures that could be obtained during courses related to natural methods. The information on this subject was also available in Catholic bookstores and on websites.

As Biskupska and Niewiadomska claim, teaching about the basics of fertility physiology is a very important element of sexual education. In a religiously and culturally diverse society, teaching program should be acceptable to all groups of consumers. A Social Education programme in Poland is A-type education - abstinence-only sex education (Biskupska, Niewiadomski, 2011, pp. 469–472).

Effects of education are showed by Dudziak in her studies on the opinions about the methods of family planning expressed by students of Family Studies. The author points out changes in attitudes of students who were participating in the NFAMs courses. In 2011, 93% of participants admitted, that their attitude to the natural methods of family planning had changed positively under the influence of the course. After the course in 2012/2013 academic year, a percentage of students who had considered using contraceptives as morally unacceptable declined from 43.4% to 19.2%, and the percentage of those who had objected to them increased from 55.3% to 80.8% (Dudziak, 2015). Muzyczka et al. tested what students of the Medical University of Lublin knew about the fertility and methods of family planning. It was found out, that the majority of students, from the major fertility indicators, had known about the changes in basal body temperature (BBT) and symptoms of cervical mucus. Most of them also knew that fertility of a woman is cyclical and lasts until the last ovulation in a woman's life. Regarding contraceptive methods, students usually chose the mechanical

methods, a rejected sexual intercourse and hormonal pills. A calendar method was most common between the natural methods (Muzyczka et al., 2012). The difference between these and previous studies is, undoubtedly, related to the presence (or lack of) a variable such as education.

A belief that the natural methods limit the satisfaction of sexual life is quite common. The studies presented here shows divided opinions, but 43% of the respondents agree with this assumption. So, is it possible that the natural methods have an impact on relationships? 60% of the respondents admit, that the NFAMs positively affect a relationship bond because they teach cooperation, mutual engagement, responsibility for fertility and for each other and a respect for a partner. According to Komorowska - Pudło's studies on the value system of heterosexual women, natural family planning, as well as contraception, reinforce the marriage provided that these methods are accepted by the couple. However, the women who took part in the test, admit that they prefer a contraception. The natural methods of family planning cause more difficulties between spouses and require a lot of sacrifices. Contraceptives are easier to use and allow partners for greater sexual freedom (Komorowska-Pudło, 2014).

Rutkowska et al. studied the methods of pregnancy prevention in the opinions of women of childbearing age in the context of the Catholic faith. The studies show that the level of religiosity has an impact on a contraception and on a decision to use a specific contraception method. The opinions of the women who find Catholic faith important were consistent with the teaching of the Catholic Church (Rutkowska et al., 2012, pp. 113- 117). Kamiński, who examined an impact of religiosity between brides and grooms on their opinions about the regulation of conception, states that almost half of them do not agree with the position of the Church (48,8%). More than one in six respondents considers contraception as a moral evil but sees no alternative (15.7%). More than one in ten considers this to be ethically indifferent (10.6%), and only less than ten percent has the same opinion as of the Church and strongly disclaims contraception (9.4%). It is also interesting, that more than one in six respondents had no opinion on this matter (16.0%) (Kaminski, 2014). Rzepka also analyzes the importance of the NFP for the development of the marriage - family relationship. Her studies show, that the influence of the NFP on the development of marriage and family bonds is significant. This is confirmed by numerous spouses' declarations, who indicate the deepening of conjugal love and a new look at married life and at the field of procreation (Rzepka, 2015).

Bińkowska et al. studied knowledge and opinions among women on the methods of family planning. Women say that the natural methods are known only superficially. They described them as unsuitable for use (regardless of the educational attainment) (Bińkowska et al., 2004, pp. 18-26). It seems, that the first variable obviously determines the second one. In this context, the opinion about using the Natural Methods of Family Planning presented by the Team of Experts of the Polish Society of Gynecologists and Obstetricians appears to be important. It might be read, that the natural methods should be recommended to women

who, for ideological reasons, do not accept other methods of pregnancy prevention. These methods should be also suggested when there are contraindications or unwillingness to use other, especially hormonal, methods of contraception and when women would accept the pregnancy (Zespół Ekspertów PTG, 2010).

Because of a clutter of information about the natural fertility awareness methods, deficiencies in education on this matter, social expectations and scientific recommendations the promotion of those methods between medical staff seems to be essential. Because of professional duties, the medical staff is obliged to teach about health education also in the field of reproductive health.

3. Conclusions

1. The knowledge of medical staff on natural methods of fertility awareness is at the average level.
2. The respondents' opinions on the natural methods of fertility are divided.
3. The main source of knowledge for medical staff about the NFAMs is education at school or university studies.
4. These methods should be promoted among the medical staff, who due to professional functions are obliged to teach about health education also in the field of procreation health.

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