

Attitudes of pregnant Ukrainian women towards their child in the III trimester of pregnancy during wartime in Ukraine in relation to women's reproductive health (Podillia region)

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Pregnancy for a woman is a period of transformation of her personal, professional, sexual, gender, bodily and other identities. The state of bearing a child is a crisis stage in the formation of a woman's personality. In wartime this crisis may intensify, which requires scientifically based research in the context of women's reproductive health and the demographic policy of Ukraine.

The objective: to study the image of the future child in women in the III trimester of pregnancy during martial law in relation to women's reproductive health.

Materials and methods. 180 pregnant women, most of whom were aged 24–29 years and were officially married and had no children, were examined using a questionnaire, a color test of attitudes by O. M. Atkind and the method of semantic differential by C. Osgood. 90 women who were registered in Vinnytsia and Vinnytsia region at the time of the survey took part in the study, and 90 women – in city of Zaporizhzhia and Zaporizhzhia region.

To determine the relationship between women's perceptions of themselves, the child, and the husband, Pearson's *r* correlation coefficients were calculated in the statistical program IBM SPSS Statistics - Early Access, and the Kruskal–Wallis H test was also used.

Results. Research conducted among women living in Vinnytsia and Vinnytsia region established that the attitude of pregnant women to themselves affects the attitude to the child ($p=0.772$), to the pregnancy ($p=0.162$), to the family ($p=0.599$) and to the child's father ($p=0.923$). A statistically significant relationship was found between the pregnant woman's attitude towards herself and her children ($p=0.001$), as well as between her attitude towards herself and motherhood ($p=0.022$). That is, the type of emotional attitude of a pregnant woman to herself affects the type of attitude towards children and motherhood. By having a positive attitude towards themselves, women have a positive attitude towards children and towards motherhood.

Also, with the help of the Kruskal–Wallis H test, the trend of the influence of the attitude towards the child depending on the age of the woman was revealed ($XI=7.424$; $df=3$; $p=0.060$), the trend of the influence of the level of education of the pregnant woman on her perception of pregnancy ($XI 10.373$; $df=5$; $p=0.065$). The correlation between the categories “I am a child” is $r=0.676$; between “father-child” categories - $r=0.528$; between “I am the father of the child” - $r=0.439$. At $df=30$, these indicators are significant.

It should be noted that among the three indicators, the highest level of significance was found between the categories “I am a child”. A comparative analysis of the obtained data between groups of women from the Vinnytsia and Zaporizhzhia regions as research participants from regions of Ukraine with different levels of security, that is, with active hostilities and relatively calm regions, shows specific differences, the description of which is given in the text of this article.

Conclusions. The results obtained in this study among women from two regions of Ukraine (Vinnytsia and the region and Zaporizhzhia and the region) prove that the identified peculiarities of the attitude of women in the III trimester of pregnancy can be determined by their place of residence during wartime. The importance of forming a positive attitude towards the child in pregnant women in the III trimester of pregnancy in wartime conditions and the need to develop appropriate programs of medical, social and psychological assistance have been proven.

The obtained results confirm the need to provide complex medical and psychological assistance to pregnant women in wartime in order to strengthen women's reproductive health. This assistance should be targeted according to the region of residence of the women, which, as the results of the study showed, determines the characteristics of the attitude of pregnant women to the child (a sample of pregnant women from Vinnytsia and Zaporizhzhia regions, respectively).

At the individual level the help should be directed at a woman's values, motivations and beliefs about the value of her own life and the life of her future child. Emotional support should include encouraging pregnant women to openly express their feelings through verbal and non-verbal means, teaching them to accept help from others, and self-help to ensure emotional well-being. The psychophysical level of care involves teaching expectant mothers to regulate their functional and mental state using such methods as autogenic training, art therapy, and body-oriented therapy in stressful situations.

Keywords: reproductive health of a woman, conception of a child, pregnancy, III trimester, motherhood, wartime, image of a child.

Образ майбутньої дитини у вагітних у III триместрі українських жінок під час війни в Україні у контексті їхнього репродуктивного здоров'я (регіон Поділля)

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Вагітність для жінки є періодом трансформації її особистісної, професійної, сексуальної, гендерної, тілесної та інших ідентичностей. Стан виношування дитини є кризовим етапом у становленні особистості жінки. У воєнний час ця кризовість може посилюватися, що потребує науково обґрунтованих досліджень у контексті репродуктивного здоров'я жінки та демографічної політики України.

Мета дослідження: вивчення образу майбутньої дитини у жінок у III триместрі вагітності під час воєнного стану у контексті їхнього репродуктивного здоров'я.

Матеріали та методи. За допомогою анкетування, кольорового тесту ставлень О. М. Еткінда та методики семантичного диференціалу Ч. Осгуда обстежено 180 вагітних, більшість з яких були у віці 24–29 років та знаходилися в офіційному шлюбі й не мали дітей. У дослідженні взяли участь 90 жінок, які на час обстеження були зареєстровані у Вінниці та Вінницькій області, а 90 жінок – у місті Запоріжжя та Запорізькій області.

Для визначення взаємозв'язку між уявленнями жінок про себе, дитину та чоловіка здійснювали підрахунок коефіцієнтів кореляції r Пірсона у статистичній програмі IBM SPSS Statistics – Early Access, також застосовували критерій Н Краскела–Волліса.

Результати. Дослідження, проведені у жінок, які мешкають у Вінниці та Вінницькій області, встановили, що ставлення вагітних до себе впливає на ставлення до дитини ($p=0,772$), до вагітності ($p=0,162$), до сім'ї ($p=0,599$) та до батька дитини ($p=0,923$). Статистично значущий зв'язок виявлено між ставленням вагітної до себе та до дітей ($p=0,001$), а також між ставленням до себе та до материнства ($p=0,022$). Тобто тип емоційного ставлення вагітної до себе впливає на тип ставлення до дітей та до материнства. Позитивно ставлячись до себе, жінки позитивно ставляться до дітей та до материнства.

Також за допомогою критерію Н Краскела–Волліса виявлено тенденцію впливу ставлення до дитини залежно від віку жінки ($XI=7,424$; $df=3$; $p=0,060$), тенденцію впливу рівня освіти вагітної на сприйняття нею вагітності ($XI 10,373$; $df=5$; $p=0,065$). Кореляція між категоріями «я – дитина» становить $r=0,676$; між категоріями «батько–дитина» – $r=0,528$; між «я – батько дитини» – $r=0,439$. За $df=30$ ці показники є значущими.

Слід зазначити, що серед трьох показників найбільший рівень значущості виявлено між категоріями «я – дитина». Порівняльний аналіз отриманих даних між групами жінок з Вінницького та Запорізького регіону як учасниць дослідження з різних за ступенем безпеки областей України, тобто з активними бойовими діями та відносно спокійних областей, свідчить про конкретні відмінності, опис яких подано у тексті цієї статті.

Висновки. Результати, отримані у даному дослідженні у жінок з двох регіонів України (Вінниця та область і Запоріжжя та область), доводять, що виявлені особливості ставлення жінок у III триместрі вагітності можуть бути зумовлені місцем їхнього проживання у воєнний час. Доведено важливість формування позитивного ставлення до дитини у вагітних у III триместрі гестації в умовах воєнного часу та необхідність розроблення відповідних програм медико-соціальної та психологічної допомоги.

Отримані результати підтверджують необхідність надання комплексної медико-психологічної допомоги вагітним у воєнний час з метою зміцнення репродуктивного здоров'я жінок. Ця допомога має визначатися адресно відповідно до регіону проживання жінок, що, як продемонстрували результати дослідження, визначає особливості ставлення вагітних до дитини (вибірка вагітних відповідно з Вінниччини та Запоріжжя і області).

На індивідуальному рівні допомога має бути спрямована на цінності, мотивацію та переконання жінки щодо цінності її власного життя та життя її майбутньої дитини. Підтримка на емоційному рівні має включати заохочення вагітних до відкритого вираження своїх почуттів за допомогою вербальних і невербальних засобів, навчання їх приймати допомогу від інших, а також самопомоги для забезпечення емоційного благополуччя. Психофізичний рівень допомоги передбачає навчання майбутніх матерів регулювати свій функціональний і психічний стан за допомогою таких методів, як аутогенне тренування, арт-терапія, тілесно-орієнтована терапія у стресових ситуаціях.

Ключові слова: репродуктивне здоров'я жінки, уявлення про дитину, вагітність, III триместр, материнство, воєнний час, образ дитини.

Pregnancy is a period of transformation of women's personal, professional, sexual, gender, bodily, and other identities. The state of waiting for a child is a crisis stage in forming a woman's personality. In wartime, this crisis is exacerbated by the external situation and requires scientific research regarding women's reproductive health and the country's demographic policy. Pregnancy is important not only in the individual fate of a woman and her family environment but also for society as a whole, especially in difficult times for society, such as war.

The very situation of conception and pregnancy was extremely sacralized during the development of civilization. Unfortunately, despite such close attention, long-term ignoring of psychological and social aspects of the perinatal process led to the formation of frankly erroneous strategies for assisting pregnant women and women in labor. Among categorical prohibitions can be mentioned

among the most senseless mistakes of the past for relatives visiting women in maternity hospitals and weaning the baby from the mother immediately after birth.

But those times are long gone, and the growing contradictions between the civilizational development of society and archaic ideas about the birth process became the main catalyst for the independent direction of prenatal psychological care, which performs an integrative function, combining the experience and accumulated knowledge of obstetricians and psychologists.

This is one of the most urgent and priority ones problems of medicine at the current stage of Ukrainian society, the solution of which will reduce the risk of complications during pregnancy and childbirth, will provide an opportunity to prevent neuropsychiatric disorders in newborns.

In Ukraine, from January to July 2023, 96,755 children were born, which is 28% less compared to a similar

period in 2021, when 135,079 babies were born. Open-databot reports this concerning official data reported by the Ministry of Justice of Ukraine [43]. This year, an average of 16,100 children are born per month. For comparison, in previous years, before the 2022 Russian invasion of Ukraine, the number of babies was about 21,000–23,000 newborns per month [44]. Interestingly, until February 24, 2023, the birth peak occurred in July 2022 and in 2023, the birth peak was recorded in March. In recent years, boys have been born more than girls, and the beginning of a full-scale war did not significantly change this distribution: 51% versus 49% [17].

«In general, birth rates in the country have been falling since 2013 - by about 7% every year. However, the full-scale invasion led to the biggest crisis in the number of newborn Ukrainians. This is the biggest decrease during the entire period of Ukraine's independence. The previous anti-peak is also related to the war in 2015, the indicators of the birth rate fell by 12% per year», – analysts say [17].

The war not only plunged Ukraine into a humanitarian and economic crisis but also exacerbated the demographic crisis. If, in 2012, 520,000 babies were born in our country, then in 2021 this figure dropped to 273,000. From February 24 to the end of 2022, 195 thousand children were born in the country. Of course, the total number of Ukrainians who were born in the year of the beginning of the «great» war may be higher, because a large number of pregnant Ukrainian women fled to give birth abroad [18].

In the first months of the full-scale invasion, there was a decrease in the number of births due to the relocation of pregnant women to safer places outside of Ukraine. Later families gradually returned home and adapted to the conditions of martial law. According to the data of the State Expert Center of the Ministry of Health, in 9 months of 2022, compared to the same period in 2021, the number of premature births increased by 2 thousand – to more than 9 thousand. These statistics do not include data from the Luhansk and Kherson regions, which were temporarily occupied [18].

In addition, as experts note, 100% of hospitals, in particular, the prenatal center, have been destroyed in the Luhansk region, which has not yet been liberated. Currently, due to the transfer of a large number of the population to safe regions in the west of the country, the load on medical facilities in Lutsk, Lviv, Ivano-Frankivsk, Ternopil, and Uzhhorod has increased. In Lutsk alone, 7,000 births took place in nine months, in Lviv region – 14,000. Before the war – 1,500–2,000 in total. Women in labor and their newborn children will also need help. With the assessment of medical experts, it is necessary to deploy additional intensive care units in these cities. If earlier there were 9 places in the intensive care unit, now they need 18. It is expensive, so the task is to find funds and deploy additional places. Currently, there are 19 prenatal centers in Ukraine, 80% of which are equipped with the latest equipment, and 114 intensive care units for newborns are functioning [18].

In such conditions, cases when a woman gives birth on her own, outside the boundaries of maternity homes and prenatal centers, for example, in a bomb shelter or in conditions unsuitable for giving birth to a child, are becoming

more frequent [16]. All this negatively affects the reproductive health of a woman and the health of her child. Another problem that pregnant women have to live with now is constant stress, which is one of the main factors of pregnancy complications, including premature births, says the head of the «280 Days» charitable foundation, Alesya Azarova [18].

Pregnancy is a challenge for a woman's psycho-emotional state [5, 21, 35]. According to statistics, two out of 10 pregnant women develop a certain mental disorder – increased anxiety or even prenatal depression, which has a high risk of turning into postpartum depression, and the woman will need the help of specialists. War can significantly aggravate this condition [18]. Therefore, the importance of medical and psychological assistance for women to preserve their reproductive health and the corresponding scientific research in this direction is updated.

Over the past 5 years, starting in 2019, scientific multidisciplinary reports published in English and devoted to the topics of «pregnancy» account for about 434,000 (and 6,800 in Ukrainian) articles and original research results according to Google Scholar platform; «maternity and reproductive health of women» about 416,000 papers (about 4,550 in Ukrainian), «motherhood» – about 40,000 (and over 15,000 in Ukrainian); «woman's attitude to motherhood during pregnancy» – 17,200 (1,600 in Ukrainian), «reproductive health of women» – 17,700 scientific papers (over 16,000 in Ukrainian), «pregnancy & wartime» – about 16,000 papers and about 4,000 in Ukrainian [18].

The analysis of theoretical and practical research in the field of motherhood and reproductive health of a woman [1, 2, 19, 32, 36] shows that to effectively prepare a woman for the birth and upbringing of a child, it is necessary to carry out work in several directions: increasing personal maturity; correction of parental attitudes and forms of interaction with the child; support of the motivation for the birth of a child; development of maternal competence; correction of the ontogenetic development of the maternal sphere. But in the conditions of martial law, scientific research is needed to reveal ways of strengthening women's reproductive health as one of the factors of the demographic situation in Ukraine.

The interdisciplinary nature of the study of pregnancy allows for considering it in the ontogenesis of a woman and as a specific state [5, 30, 34], as a situation [4, 25], and as a multi-level, multi-dimensional process [20, 27] related to the anatomical-physiological, psychological and social status of a woman. This allows us to consider pregnancy as a phenomenon from several positions. From a medical point of view, pregnancy is a natural physiological process of the development of a fertilized egg in a woman's body, as a result of which a new person is formed and developed, capable of existing outside the mother's body [8, 11, 22, 23]. From a psychophysiological point of view, pregnancy is considered a physiological process caused by fertilization, which leads to changes in a woman's body and mind, which are aimed at the development and birth of a new person [6, 7, 9, 10, 15, 28].

From a *psychological* point of view, pregnancy is considered a critical stage in the development of a woman's personality, as a psychological crisis, which includes the

awareness and internal acceptance of herself as pregnant, a symptom of a contradictory attitude towards pregnancy, the restructuring of a woman's self-consciousness with the gradual inclusion of the image of a child in it, the acceptance of her new social mother's role, fears about the success of the implementation of the mother's function [12, 14, 31, 37]. The studies of the psychological state of women during childbearing were carried out by R. Baskin et al., D. Coles et al., S. Sanders et al, M. Velykodna et al. [3, 29, 33, 42].

The study of pregnancy and reproductive status of women during the war is presented in over 10,000 studies starting from 2019. Therefore, transformations in public consciousness caused by wartime occur both in maternal attitudes and in the image of a child in the imagination of pregnant women. The recorded trends in the dynamics of the birth of babies in Ukraine indicate the importance of the problem of motherhood not only in the usual medical but also in socio-demographic and socio-psychological aspects, which has been manifested since the time of full-scale invasion. The study of the attitude of pregnant women to the future child is now important not only in terms of developmental, preventive, and corrective work in the field of motherhood but also as a state-level problem. In the practice of work of obstetricians and psychologists with pregnant women, the following is most often suggested: increasing the level of knowledge about pregnancy, childbirth, and child development; preparation for childbirth; mastering child care skills and preserving a woman's reproductive health. Now the emphasis has changed.

A review of the methodology and reference to previous research clearly shows that today the issues related to the attitude of a pregnant woman toward a child in wartime conditions, the image of the future child in pregnant women during a state of war, women's reproductive health as a factor are not sufficiently studied [7, 12, 31 and others].

Therefore, the **objective of this study is** to demonstrate the unique nature of the way in which pregnant women in the third trimester of pregnancy perceive their unborn child within the context of reproductive health.

The hypothesis of our research is based on the following assumptions:

1. The attitudes of a pregnant woman towards the child's father is linked to her perception of the future child.
2. A pregnant woman's attitudes towards herself is linked to her perception of the future child.
3. The attitudes of pregnant women towards their baby will differ depending on the region of Ukraine, whether it is near or far from the active war zone.

MATERIALS AND METHODS

The study was conducted from February to September 2023 at the women's consultation center in Vinnytsia (maternity home №1, communal non-commercial enterprise Vinnytsia city clinical maternity home №2) and in Zaporizhzhia (communal non-commercial enterprise Zaporizhzhya city clinical maternity home №4 women's clinic №2, № 3; communal non-commercial enterprise «maternity home № 9» women's clinic), Ukraine. Initially, 180 pregnant women were included in the study, with the majority between ages 24 and 29, officially married,

and childless. Among them there are 90 women from Vinnytsia and the Vinnytsia region, which can be characterized as relatively quiet in terms of military operations, and 90 women from the city of Zaporizhzhya and the Zaporizhzhya region, which can be characterized as on the front line. The selection criteria for participants in this study were based on three factors: being in their third trimester of pregnancy, as the image of the child has already been elaborated in detail [4], and marriage status, as we considered the system of the «mother – child – father» triad to be important in this study, and normal, non-pathological course of pregnancy with no diagnosed complications.

In the study, the researchers used psychological methods, including questionnaire measures, Atkind's Color Test of Attitudes, and Osgood's Semantic Differential, in addition to statistical analyses. To determine the relationship between women's perceptions of themselves, their children, and their husbands, as well as to compare these profiles of women from different regions in terms of the military situation, we calculated Pearson's r-correlation coefficients in the IBM SPSS Statistics – Early Access statistical program, and we also used the Kruskal-Wallis test. Pearson's r-correlation coefficients were obtained. This formula analyzes the correlation between two metric variables that were obtained from the same sample. The statistical software utilized for result computation is IBM SPSS Statistics – Early Access.

Therefore, the primary phase of our study involved analyzing data from 180 women in their third trimester of pregnancy, who were either in official or civil marriages. Table 1 presents the sociodemographic profile of studied women.

According to Table 1, most of the studied women aged 24–29 were officially married and did not have other children. For the study purposes, we chose questionnaires, Atkind's Color Test of Attitudes [38], and C. Osgood's semantic differential [39].

Compliance with ethical aspects.

The research took place within the framework of the diagnostic process and was conducted in accordance with the Ethical Standards of Psychological Research [40]. Ethical approval for this study was received from the Ethics Committee of Psychology Department of Faculty of Psychology and Special Education, Oles Honchar Dnipro National University (31.08.2021 and №1 of protocol). Written consent of women for participation in the study was gathered along with responding to the questionnaires.

RESULTS AND DISCUSSION

At the beginning of this section, we consider it appropriate to give a brief description of the course of pregnancy, reproductive and somatic anamnesis of the women studied, since these data also have a significant influence on the attitude towards the future child and its image. The study included 180 somatically healthy pregnant women with a healthy, non-pathological course of pregnancy who were divided into first group (from Vinnytsia and the Vinnytsia region, 90 pregnant women). The first group (average age 26.7 ± 1.7 years) consisted of these women. The second group also consisted of 90 somatically healthy pregnant women with a non-pathological preg-

Demographic information for the studied women

Variable	Options	Total %	Total absolute index (n=180)	Vinnytsia and Vinnytsia region		Zaporizhzhya and Zaporizhzhya region	
				%	absolute index (n=90)	%	absolute index (n=90)
1. Age	18–23 years old	20	36	22	20	18	16
	24–29 years old	40	72	41	37	39	35
	30–35 years old	33,3	60	31	28	35	32
	36–41 years old	6,7	12	6	5	8	7
2. Education	Higher Education	40	72	44	40	37	34
	Incomplete higher education	6,7	12	8	7	6	5
	Second higher education	6,7	12	6	5	8	7
	Secondary technical education	26,7	48	25	23	24	22
	Secondary special education	16,7	30	14	13	19	17
	Incomplete secondary education	3,3	6	3	2	6	5
3. Social status	Student	6,7	12	9	8	5	4
	Housewife	30	54	11	10	37	34
	Engaged in work	63,3	114	80	72	58	52
4. Marital status	Official marriage	70	126	76	69	63	57
	Civil marriage	30	54	24	21	37	33
5. Number of children	They have no children	70	126	67	61	71	64
	Has one child	30	54	33	29	29	26

nancy (average age 26.9±1.4 years, p<0.05) from the city of Zaporizhzhya and the Zaporizhzhya region.

The anthropometric measurements of pregnant women, including weight, height, and waist circumference, fall within the standard range. The general condition of the pregnancy is uneventful is also within normal limits. The pregnancy has been normal. The results of general blood tests, biochemical tests, urinalysis, etc. are within the normal range. Results from general blood tests, biochemical tests, urinalysis, and other related tests all show values within normal limits. Ultrasound screening revealed normal results for the previous ultrasound examination, including fetal weight, condition of membranes and amniotic fluid, CTG (cardiotocography): assessment of fetal heartbeat and changes in its rhythm without pathological changes.

It should be noted that among the pregnant women from Zaporozhye who participated in the study, 38 (42%) were internally displaced as a result of the full-scale invasion on 02/24/2022. Specifically, these women come from the settlements within the temporarily occupied Zaporozhye region, including the cities of Berdyansk, Melitopol, Vasilyevka, Genichesk, and Kherson. Patients in both groups, during the 29–31 weeks of pregnancy, underwent a comprehensive evaluation, which included a survey to clarify complaints, a collection of medical and life history, an analysis of previous medical documentation, a physical examination, and laboratory studies to determine general blood analysis and basic biochemical indicators.

The majority of pregnant women, regardless of their region, complained of somatic complaints such as shortness of breath, discomfort in breathing, and heartburn, swelling in the ankles, fingers, and face, hemorrhoids, breast tenderness, navel protrusion, and sleep disturbances. These discomforts are typical during this trimester and usually resolve after the baby is born.

To avoid overload of this article with comparisons of data obtained in the study of pregnant women from Vinnytsia and Zaporizhzhya, we will present only the most significant data comparisons, according to our opinion, in accordance with the purpose of this article. Based on the results of Atkind's test, we collected data on the relationship between the needs of a pregnant woman from Vinnytsia and Vinnytsia region depending on chosen color to a certain category (Table 2).

The obtained results indicate that the majority of women (33.3%) associate themselves with the purple color, thereby expressing the need to express emotions, emotional lability, attract attention, and create an impression. A child (56.7%), pregnancy (43.3%), children (46.7%), and motherhood (43.3%) were mostly associated with yellow colour, which represents the need for change, relaxation, and avoidance of problems and trouble, searching for positive emotions. The majority of women (30%) associate the child's father with the green colour, which expresses the need for development and self-affirmation, recognition and stability. Family for 40% was also associated with yellow, and for 40% – with green colour.

Table 2

The needs of a pregnant woman from Vinnytsia and Vinnytsia region (according to Atkind's method) (n=90)

Need (color)	closeness, love, peace (blue)		self-affirmation, recognition (green)		success, activity (red)		changes, relaxation, avoiding problems (yellow)		attracting attention and creating an impression (purple)		physical comfort, rest and sensual pleasure (brown)		aggression (black)		distance and invisibility (gray)	
	absolute index	%	absolute index	%	absolute index	%	absolute index	%	absolute index	%	absolute index	%	absolute index	%	absolute index	%
Myself	0	0	21	23,3	21	23,3	15	16,7	30	33,3	0	0	0	0	3	3,3
My child	0	0	18	20	6	6,7	51	56,7	15	16,7	0	0	0	0	0	0
Father of child	9	10	7	8	7	23,3	18	20	9	10	3	3,3	0	0	3	3,3
Pregnancy	0	0	15	16,7	18	20	39	43,3	15	16,7	0	0	0	0	3	3,3
Children	0	0	15	16,7	18	20	42	46,7	12	13,3	0	0	0	0	3	3,3
Motherhood	0	0	9	10	9	10	39	43,3	27	30	0	0	0	0	6	6,7
Family	0	0	36	40	9	10	36	40	9	10	0	0	0	0	0	0

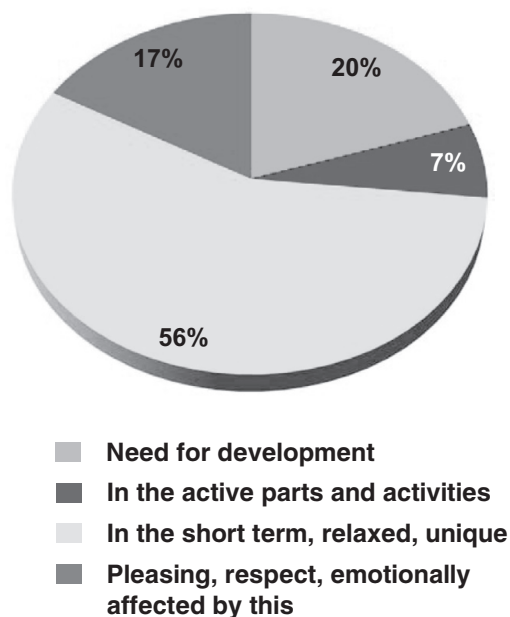


Figure 1. Child as a factor in the implementation of the needs of a pregnant woman from Vinnytsia and Vinnytsia region (according to the results of the Atkind's test) (n=90)

The obtained data are generally consistent with the idea of K. Horney, who emphasizes that pregnancy and motherhood are a way of realizing the essential creative principles of a woman. According to K. Horney, the reasons for the disdainful attitude towards pregnancy on the part of «male» psychoanalysis are the fascination with the

life-giving power of women and the envious image of men towards women [13].

Since the need is considered an internal factor of the development of the psychic image, using the Atkind's test [38] we can suppose what need women associate their future child with (Fig. 1).

According to Figure 1, for the majority of female women (56.7%), the child is associated with yellow colour and might be linked to a need for change, relaxation and problems avoidance. For 20% of women, a child is associated with a green color, showing that a child for these women is a requirement for self-assertion, advancement of their position, and independence. Associating the future of a child with a purple color (16.7%), the woman shows the need for the promotion of emotions, attached respect, and mutual hostility. For women who associate a child with a red color (6.7%), the child might reflect the need of activity, exercise for initiative and, at the same time, alarming tendencies and fears.

Based on the results of Atkind's test, we gathered data regarding the correlation between a pregnant woman's needs from Zaporizhzhya and the Zaporizhzhya region based on the chosen color within a specific category (Table 3).

Comparison of pregnant women's needs from Vinnytsia and Zaporizhzhya Region shows differences in their perception of the child's image. Notably, 30% of women from Zaporizhzhya associate a child with a need for closeness, love, and peace, whereas pregnant women from Vinnytsia, a calmer region located far from areas of active military hostilities, do not. No woman associated a child with such a need. Pregnant women from the Zaporizhzhya region associate their unborn child's image with closeness, love, and peace, potentially reflecting their positive expectations for their child. Women may attempt to find com-

Table 3

The needs of a pregnant woman from Zaporizhzhya and the Zaporizhzhya region (according to Atkind's method) (n=90)

Need (color)	Need for closeness, love, peace (blu)		Need for development (green)		Need for the active parts and activities (red)		Need for changes, relaxation, avoiding problems (yellow)		Need for attracting attention and creating an impression (purple)		Need for physical comfort, rest and sensual pleasure (brown)		Need for aggression (black)		Need for distance and invisibility (gray)	
	absolute index	%	absolute index	%	absolute index	%	absolute index	%	absolute index	%	absolute index	%	absolute index	%	absolute index	%
Myself	0	0	21	23,3	21	23,3	15	16,7	30	33,3	0	0	0	0	3	3,3
My child	27	30	0	0	0	0	26	23,5	5	4,5	0	0	0	0	32	42
Father of child	9	10	7	8	7	23,3	18	20	9	10	3	3,3	0	0	3	3,3
Pregnancy	0	0	15	16,7	18	20	39	43,3	15	16,7	0	0	0	0	3	3,3
Children	0	0	15	16,7	18	20	42	46,7	12	13,3	0	0	0	0	3	3,3
Motherhood	0	0	9	10	9	10	39	43,3	27	30	0	0	0	0	6	6,7
Family	0	0	36	40	9	10	36	40	9	10	0	0	0	0	0	0

fort and reassurance in their child as something pleasant and bright in their lives against the background of military events (see Table 4 for a comparative profile).

However, only women from the Vinnytsia region associate the need for development with the image of the unborn child, whereas diagnosed pregnant women from Zaporizhzhia do not do so anyway. This can be explained by the fact that the need for development is least prevalent in these women, as their focus is primarily on survival and physical safety. The imagining of a child is minimally associated with the need for activity among women from Vinnytsia (6.7%) and pregnant women from Zaporizhzhya (0%). This can be attributed to the fact that pregnant women primarily desire peace and comfort, particularly in regions close to an active war zone. Women from Zaporizhzhia exhibited an almost twofold lower rate of need for change, relaxation, and avoidance of problems (56.7% and 23.5%, respectively).

We believe that the possible reason for this is the fear of the image of the baby among the women of a city near an active combat zone. The desire to attract attention and make an impression was significantly less prevalent among pregnant women from Zaporizhzhia compared to those

from Vinnytsia, with a rate of 16.7% and 4.5%, respectively. The differing sense of security experienced by women residing in frontline cities may explain their tendency to feel insecure and to draw less attention to themselves and, consequently, to their unborn baby. We hypothesize that this tendency reflects a desire to protect their child by minimizing attention. The survey results show a uniform distribution of needs for physical comfort, rest, sensual pleasure, and aggression (0% and 0%). The lack of association between pregnancy and child imagery with aggression, comfort, and peace characterizes women's perceptions.

Also, there are noticeable differences in how pregnant women from Vinnytsia and those from Zaporizhzhia perceive distance and invisibility concerning child imagery. For instance, pregnant women from Vinnytsia do not associate any image of their unborn child with the need for distance (0%), while 42% of pregnant women from Zaporizhzhia associate the image of the child with the need for distance and privacy. We suggest that this may be explained by the women's need to protect their child. The perception of the image of the child in the third trimester among pregnant women from Vinnytsia and Zaporizhzhya is significantly different.

Table 4

The comparison of the needs of a pregnant woman from Vinnytsia* (n=90) and the Zaporizhzhya** region (n=90) (according to Atkind's method)

Need (color)	Need for closeness, love, peace (blu)		Need for development (green)		Need for the active parts and activities (red)		Need for changes, relaxation, avoiding problems (yellow)		Need for attracting attention and creating an impression (purple)		Need for physical comfort, rest and sensual pleasure (brown)		Need for aggression (black)		Need for distance and invisibility (gray)	
"My child"***	27	30	0	0	0	0	26	23,5	5	4,5	0	0	0	0	32	42
"My child»*	0	0	18	20	6	6,7	51	56,7	15	16,7	0	0	0	0	0	0

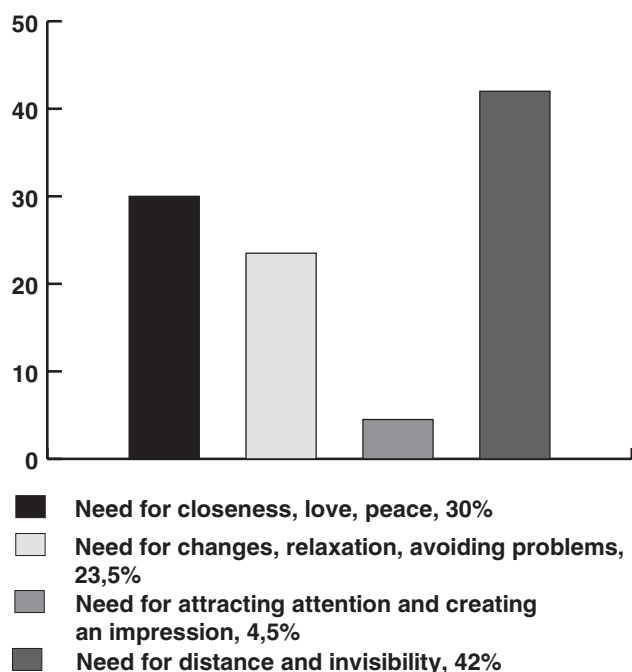


Figure 2. Child as a factor in the implementation of the needs of a pregnant woman from Zaporizhzhya and the Zaporizhzhya region (according to the results of the Atkind's test) (n=90)

Since the need is considered an internal factor of the development of the psychic image, using the Atkind's test [38] we can suppose what need women associate their future child with (Fig. 2).

The data we obtained are consistent with the results of U. Tataj-Puzyna et.al. research. The scientist believes that the period of pregnancy in women is accompanied by changes in the physiological, hormonal, emotional, cognitive, and social levels, which causes the acquisition of a new identity, restructuring of self-awareness, and mastery of a new social role. Such a

complex of neoplasms, in his opinion, determines the essence of the psycho-emotional state of a pregnant woman, which should be studied, focusing on the following components: peculiarities of a woman's communicative experience gained in childhood; experiences and attitudes towards the child at different stages of pregnancy; settings on the strategy of raising and caring for a child [26].

Using the Atkind's test, we also investigated the emotional attitude of a pregnant woman from Vinnytsia and Vinnytsia region to the following categories: «myself», «my child», «father of the child», «pregnancy», «children», «motherhood», «family» (data is presented in table 3). We purposefully did not introduce into the semantic field of the study concepts related to the images of the war situation, not to provoke anxiety and negative experiences in the studied women.

At the same time, it should be noted the existence of the phenomenon of emotional stability, which in some studies is presented as an integral component of a woman's psycho-emotional state in the prenatal period. Thus, Y. Lee et al. indicates that the emotional stability of a pregnant woman is characterized as the ability to maintain emotional stability in the process of evaluating objective and subjective factors [20].

Emotional stability, according to the author, can arise in conditions of qualitative and quantitative correspondence of sensations to stimuli, due to the ability to determine the optimal solution in non-standard situations and at the same time maintain endurance. From the researcher's point of view, emotional stability reduces the negative impact of strong emotional phenomena and promotes readiness to act in a tense situation, which contributes to success in realizing a woman's goals and needs.

According to Table 5, the majority of women have positive attitudes toward themselves, the child, the child's father, their pregnancy, children, motherhood, and the family as a whole 93.3% of the studied women have a positive attitude towards themselves (80%

Table 5

Emotional attitude of a pregnant woman from Vinnytsia and Vinnytsia region to the studied category (according to the Atkind's test) (n=90)

Categories	Positive		Neutral-positive		Neutral		Neutral-negative		Negative		Contradictory	
	absolute index	%	absolute index	%	absolute index	%	absolute index	%	absolute index	%	absolute index	%
myself	72	80	12	13,3	0	0	6	6,7	0	0	0	0
my child	84	93,3	3	3,3	3	3,3	0	0	0	0	0	0
father of the child	42	46,7	6	6,7	24	26,7	12	13,3	3	3,3	3	3,3
pregnancy	81	90	6	6,7	3	3,3	0	0	0	0	0	0
children	78	86,7	9	10	3	3,3	0	0	0	0	0	0
motherhood	69	76,7	12	13,3	6	6,7	3	3,3	0	0	0	0
family	81	90	3	3,3	3	3,3	0	0	0	0	3	3,3

Table 6

The comparison Types of the emotional attitudes of a pregnant woman from Vinnytsia* (n=90) and Zaporizhzhya** region (n=90) to the category «my child» (Atkind's test)

Categories	Positive		Neutral-positive		Neutral		Neutral-negative		Negative		Contradictory	
	absolute index	%	absolute index	%	absolute index	%	absolute index	%	absolute index	%	absolute index	%
my child *	84	93,3	3	3,3	3	3,3	0	0	0	0	0	0
my child **	73	81,1	2	2,2	0	0	0	0	0	0	15	16,7

of them have a stable positive attitude, 13.3% have an unstable, i.e. neutral-positive), 6.7% have a negative attitude towards themselves (unstable); 96.6% of the women have a positive attitude towards their child (93.3% of them have a stable positive attitude, and 3.3% have an unstable, i.e. neutral-negative), 3.3% of women have a neutral attitude towards the child; 53.4% of women have a positive attitude towards the child's father (46.7% of them have a stable positive attitude, 6.7% have an unstable attitude), 26.7% have a neutral attitude towards the husband, 16.6% have a negative attitude (of them 13.3% have an unstable negative attitude, i.e. a neutral-positive attitude, and 3.3% have a stable negative attitude).

The data regarding the positive emotional attitude of pregnant women toward themselves is generally atypical compared to other research in the field. Recent studies have proven that the maternal sphere undergoes significant changes during pregnancy, which are reflected in the woman's experience of pregnancy symptoms, her activity, and mental state, which includes the moments of pregnancy identification, the experience of pregnancy symptoms, the dynamics of the experience of symptoms, and the prevailing mood background during the trimesters of pregnancy, experiencing the first movement of the fetus and movement during the entire second half of pregnancy, the activity of a woman in the third trimester of pregnancy. Research reports have disagreements about the predominance of one or another psychological component of gestational dominance, which depends on the contingent of pregnant women who participated in the study, the presence of pregnancy complications, the method of delivery, etc.

Comparing the Emotional Attitude of Pregnant Women Towards Children in Vinnytsia and Zaporizhzhya Table 6 presents the results of the study. The majority of respondents (81.1% and 93.3%, respectively) had a positive image of the child, as shown in Table 6. There is a significant difference in the fact that pregnant women from Zaporizhzhya have two extreme types of attitude towards their child, namely positive (neutral-positive) and contradictory. While women from Zaporizhzhya have two distinct attitudes, Positive (Neutral-positive) and Contradictory, those from Vinnytsia are predominantly Positive (Neutral-positive) and 97% Positive (Neutral-positive) in their child's image. Neutral-negative, negative and

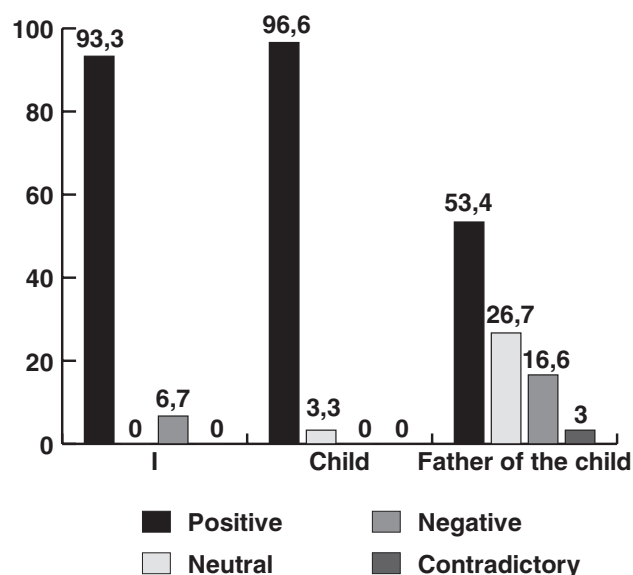


Figure 3. The emotional attitudes of a pregnant woman from Vinnytsia and Vinnytsia region to the triad «I – child – father of the child» (n=90)

contradictory representations about the image of their child were not revealed.

In some studies, only anxious (V. Levchenko, 2013), or anxious and depressive types (Lukashevich & Olhovskiy, 2011; R. Bloch et al., 2019) are dominant, while in others euphoric and anxious are most prevalent (I. A. Zhabchenko, 2018) [45–47]. However, all of them indicate a significant percentage of the unfavorable type of psychological component of the gestational dominant and its connection with the complicated course of gestation. Assessment of the psychological component of gestational dominance was also used.

We also used Atkind's method to determine the semantic proximity (see Table 7) between categories such as «I», «child» and «father of the child».

The data from Table 4 indicate that the majority of the studied pregnant women associate their children and their husbands with different meaningful groups. 33.3% of women identified their future child with themselves and 26.7% with the father. Of the women studied,

Table 7

Semantic proximity of the categories of attitudes pregnant woman from Vinnytsia and Vinnytsia region towards motherhood according to the results of Atkind's method (n=90)

Group categories	One meaningful group		Different semantic groups		Opposite semantic groups	
	absolute index	%	absolute index	%	absolute index	%
I and my child	30	33,3	57	63,3	3	3,3
Child and father	24	26,7	54	60	12	13,3
I and the father of the child	18	20	69	76,7	3	3,3
I, the child, the father of the child	6	6,7	33	36,7	51	46,6

Table 8

Statistics of criterion H according to the variable «Emotional attitudes of the pregnant woman from Vinnytsia and Vinnytsia region towards the child's father» (n=90)

	Emotional attitude «My child»	Emotional attitude «Children»	Emotional attitude «Pregnancy»	Emotional attitude «Motherhood»	Emotional attitude «Family»	Emotional attitude «Myself»
Chi-square	2,365	3,938	9,037	5,079	12,638	5,654
df	5	5	5	5	5	5
p	0,797	0,558	0,108	0,406	0,027	0,341

only 6.7% assigned the child's «I – child – father» triad to a single meaningful group; in contrast, 36.7% of the women considered each member of the triad separately. This confirms the position of K. S. Beetham et al. (2019) about the fact that in the third trimester, the child's image is distinguished from the mother's ideas about herself and others [4].

We determined the influence of the pregnant woman's attitude toward the child's father on her attitude toward the child using the Kruskal-Wallis test (Table 8).

As shown in Table 7, a pregnant woman's attitude toward the child's father does not affect her attitude toward the child (p (statistical significance level) = 0.797); toward the child. As shown in Table 4, a pregnant woman's attitude toward children generally (p=0.558); pregnancy (p=0.108); motherhood (p=0.406); and also toward herself (p=0.341) are also not affected by the attitude to her husband. A statistically significant relationship p=0.027 was found only between a pregnant woman's attitude towards the child's father and attitude towards the family, i.e., the type of attitude towards the husband influences the type of attitude towards the family. Women who have a positive attitude toward their husband have a positive attitude toward their families more often.

We also used the Kruskal-Wallis H criterion (Table 9) to examine the influence of the pregnant woman's attitude toward herself on her attitude toward her future child.

As presented in Table 9, a pregnant woman's self-perception does not have any impact on her feelings toward her child (p=0.772), pregnancy (p=0.162), her family (p=0.599), or the child's father (p=0.923). Nevertheless, a statistically significant relationship does exist between a pregnant woman's self-perception and her feelings toward her children (p=0.001), as well as her feelings toward motherhood (p=0.022). *This implies that a pregnant woman's emotional self-perception can influence her attitudes toward her children and motherhood. In other words, women who have a positive self-image tend to have positive attitudes toward children and motherhood.*

The obtained results correspond to the research, which confirmed that the third trimester of pregnancy has the accumulation of strength by the mother's body for childbirth as its main content. The fetus becomes the only focus of the future mother's thoughts, interests, and activities. Scientific data [2, 4, 5, 9] indicate that the style of experiencing pregnancy is one of the important characteristics of the psychological component

Table 9

Statistics of the criterion H according to the variable «Emotional attitude toward» of the pregnant woman from Vinnytsia and Vinnytsia region (n=90)

	Emotional attitude «My child»	Emotional attitude «Children»	Emotional attitude «Pregnancy»	Emotional attitude «Motherhood»	Emotional attitude «Family»	Emotional attitude «Child's Father»
Chi-square	0,517	15,049	3,637	7,643	1,025	0,160
df	2	2	2	2	2	2
p	0,772	0,001	0,162	0,022	0,599	0,923

Table 10

Presents the results of the correlation analysis between a woman's age and her attitude toward child (Vinnytsia and Vinnytsia region) (n=90)

Age (in years)	Emotional attitude «My child», %			In total, %
	Positive	Neutral-positive	Neutral	
18–23	100	0	0	100
24–29	91,667	8,333	0	100
30–35	100	0	0	100
36–39	50	0	50	100
In total	93,333	3,333	3,333	100

of gestational dominance and, in many aspects, corresponds to the type of attitude of a woman to pregnancy highlighted by J. Raphael-Leff (2018) [27]. The style of experiencing pregnancy accompanies obstetric pathology. Under favorable dynamics of the obstetric situation, the style of experiencing pregnancy approaches adequately (N. S. Babieva et al., 2018). The main cause of pregnancy complications is considered to be the violation of the sequential change of the dominant conception to the dominant of pregnancy, as a result of which the psychological component of the gestational dominant is formed after the physiological one [48].

Additionally, utilizing the Kruskal-Wallis H-test, we observed a potential influence of a woman's age on her attitude toward children (chi-square = 7.424; df = 3; p=0.060). Further details regarding the correlation between a woman's age and her attitude toward child can be found in Table 10.

The studied pregnant women aged 18–23 have a 100% positive attitude toward their future child. Among women aged 24–29, 91.6% have a positive attitude, and 8.3% are neutral-positive. Among women aged 30–35, the positive attitude is also 100%. Of the women aged 36–41, 50% have a positive attitude and 50% are neutral.

In the field of research devoted to age-specific attitudes of pregnant women towards their future offspring, Y. Y. Savchenko (2016) highlights that for women aged 25 and above, the choice to maintain the pregnancy may be intertwined with the desire to «measure up to societal norms» [41]. This phenomenon is particularly pronounced among women who have been married for a long period but have not yet had children. In such instances, pregnancy assumes a positive connotation: the delivery of a child is eagerly anticipated and deeply desired, and the woman herself experiences a sense of pride associated with her new maternal role.

Using the Kruskal-Wallis H test, we found a trend of the influence of a pregnant woman's educational level on her perception of pregnancy (CI = 10.373; df = 5; p=0.065). The result of the correlation between a woman's educational level and her needs shows the consumption habits of women, and consequently the consumption patterns in children, were stratified based on a hierarchical ranking. Women with higher education tend to show varying degrees of specific needs, including the need for self-assertion (16.6%), need for success and activity (25%), need for change, relaxed, problem avoidance (33.3%), and need for attracting, attention and making an impression (25%). Among women with secondary technical education, pregnancy is primarily associated with success and activity (25%) and the desire for change, relaxation, and problem avoidance, as outlined in Table 11.

It can be observed that pregnant women from Vinnytsia and Vinnytsia region tend to identify their future child with their husbands more closely for profiles such as «Strong», «Hot», «Orderly», and «Complex». The strongest connection (r=0.544) was found for the «Strong» profile, while the pregnant women identified the child with themselves for profiles such as «Heavy», «Joyful», «Good», «Big», «Bright», «Active», «Smooth», «Hard», «Kind» and «Pleasant». The closest connection (0.765 ≥ r ≤ 0.942) between the triad «I – child – father» was observed in profiles such as «Native», «Dear», «Beloved», «Fresh», «Smart», and «Clean». The correlation values between the categories «I – child» and «Father-child» were r=0.676 and r=0.528, respectively, while the correlation value between «I – the father of the child» was r=0.439. The highest level of significance was found between the categories «I – child». This suggests that the child is closer to the mother in the woman's mind, and is more con-

Table 11

Profile comparison results of women from Vinnytsia and Vinnytsia region (by calculating correlation coefficients) (n=90)

Categories	Profiles										
	Native	Hard	Dear	Fast	Kind	Cheerful	Beloved	Fresh	Smart	Sharp	Clean
«Child – Father»	0,765	0,522	0,698	0,597	0,348	0,542	0,834	0,712	0,801	0,209	0,846
«Myself – child»	0,777	0,883	0,741	0,592	0,553	0,910	0,812	0,791	0,680	0,483	0,942
«Myself – the father of a child»	0,784	0,550	0,820	0,445	0,336	0,443	0,807	0,774	0,681	0,268	0,803

nected and similar to her than to her husband. Hence, it can be assumed that a woman identifies her child more with herself than with her husband.

As a result of empirical research, we found that women from Vinnytsia and Vinnytsia region have a more positive emotional attitude towards themselves and their children than towards men. The obtained results show that in the woman's mind, her child is closer to her than her husband, more similar to her than to her husband, and it was found that the woman's attitude towards herself is more similar to the attitude towards the child than towards the husband. The place in the child's value system is influenced by how a woman imagines herself and the child's father.

For most pregnant women from Vinnytsia and Vinnytsia region, a child is associated with the need for change, relaxation, and avoiding problems, and expresses a woman's desire for release, expectation, and hope for the best. This is probably because, in the third trimester of pregnancy, which is quite difficult, a woman wants to see her child as soon as possible and be free from the inconveniences associated with pregnancy, hopes for easy delivery, and imagines her future with the child. For women who associate a child with the red color, a child represents a need for activity, a desire for achievements, and initiative.

So, we can assume that the hypotheses of our study, based on the assumption that the attitudes pregnant women towards the father of the child and oneself influences the perception of the future child, were partially confirmed. Using Atkind's color test of attitudes. A result was obtained that shows that the attitude towards the child in the third trimester of pregnancy is almost one hundred percent positive and does not depend on the attitude of the husband towards himself. This fact allows us to assume that the connection is not observed in this sample, since all women are in the third trimester, and attitudes in the space of family categories may be influenced by situational factors. As for Osgood's semantic differential, the obtained results make it possible to assume that a woman's attitude towards herself and her husband is similar to her attitude towards a child. We believe that these two techniques aim to investigate different aspects of attitudes. Regarding the image of the future child, we can say that the pregnant woman's attitudes towards herself and her husband are reflected in the image of the future child, and the woman's attitude towards herself is closer to the ideas about the future child.

Our study correspond the ideas of scientists [1, 15, 21, 24, 25, 29, 32, 33, 34, 37, 47, 48] that the formation of maternal behavior is significantly influenced by the social context and environment, so the individual attitude of a woman, which is particularly manifested in the image of a child for a pregnant woman, is decisive. Therefore, in wartime, not only medical but also social and psychological assessment and assistance are extremely important for pregnant women. The course of pregnancy and childbirth, as well as the reproductive health of the woman and the life of the newborn,

depend on whether the woman will receive qualified psychological help and support. Psychological assistance should be organized in collaboration with psychologists, social workers, and midwives and may be addressed to various structures of a pregnant woman's personality.

LIMITATIONS

The research has some limitations. The study was based on a national sample of Ukrainian pregnant women in the third trimester of pregnancy, aged 24–29 years, residents or temporary residents of the Right Bank of Ukraine, the eastern part of Podilia and the city of Zaporozhye and the surrounding region, located in a frontline zone (total n=180). Consequently, in our view, conducting comparable studies in other regions with a larger sample size may result in new findings. Second, the study's data analysis implemented statistical procedures suitable for a small sample, encompassing the utilization of the chi-square test and the Kruskal–Wallis test. Regression analysis and exploratory factor analysis would be the best choice to reveal the impact of the variables studied on women's attitudes.

CONCLUSIONS

According to the aim of the article to demonstrate the unique nature of the way in which pregnant women in the third trimester of pregnancy perceive their unborn child within the context of reproductive health we compared the attitudes of pregnant women in their third trimester towards their future child, depending on their attitudes towards themselves and the child's father. The results obtained in the study of women from another region of Ukraine prove that the identified peculiarities of the attitudes of pregnant women in the third trimester of pregnancy may be due to their place of residence in wartime. The importance of a positive attitude towards the child of pregnant women in the third trimester of pregnancy in wartime and the need to develop appropriate programs of medical, social and psychological assistance are proved.

The results obtained support the requirement for comprehensive medical and psychological care for expectant women during wartime to enhance women's reproductive health. At the individual level, assistance should focus on a woman's values, motivation, and beliefs regarding the worth of her own life and that of her future child. Support at an emotional level should involve promoting pregnant women to express their feelings openly through verbal and nonverbal means, teaching them how to accept help from others, and providing self-help for their emotional well-being. The psychological level of care involves teaching expectant mothers how to regulate their functional and mental states using techniques such as autogenic training, art therapy, and body-oriented therapy in stressful situations.

Conflict of interest statement. The authors declare no conflicts of interest

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