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Effects of Toco phobia on Pregnancy Outcomes in Kirkuk City Hospitals

[1] Rusul Najeeb Daood ,[2] Suhad H. Khairi

Abstract

Background: *Fear of childbirth interfering with the woman's daily functioning is a severe form of Tocophobia, there is increasing evidence that Tocophobia has serious adverse effects on both mother and baby.*

Objectives: *To determine the effects of Tocophobia on pregnant women and newborns outcomes.*

Methods: *A purposive sampling "Non probability" consists of one hundred pregnant women who have signs and symptoms of Tocophobia at Maternity department in hospitals in Kirkuk City. in the third trimester of gestation age. The study was performed with the use scale of fear of childbirth (WDEQ-A) as well as a proprietary interview questionnaire and structured data documentation form by using both descriptive and inferential statistics.*

Results: *The findings of the study show that all (100%) of study sample are having Prenatal and postnatal depression and insomnia;(89%) of them are requesting an elective cesarean section to avoid facing vaginal delivery; (78%) of them are not bonding early with their babies; (59%) of them are reporting a prolonged the duration of labor. the newborn outcomes among pregnant women; shows that (76%) of them having low birth weight child; all (100%) of study sample are reported that they admitted their newborn for intensive care; (82%) reporting of poor breastfeeding.*

Conclusion: *The study concludes that Tocophobia have negatively effect on maternal and newborn outcomes*

Keywords: Effects ,Tocophobia , Pregnancy Outcomes.

Introduction

Childbirth is a multidimensional process with physical, emotional, social, physiological, cultural, and mental dimensions, which is considered a critical experience in every woman's life. Sometimes, fear of childbirth is so high that it prevents women from getting pregnant and even disturbs their daily activities (Pinter & Martin,2013). Despite higher complications of cesarean section compared with vaginal delivery, such as post-surgery infections, injury to organs, bleeding, embolism reaction to medication or anesthesia, scar tissue, and difficulty with future deliveries, the worldwide caesarean rate has continuously increased over recent decades in developed and developing countries (WHO,2015).The rate of caesarean section in Iran in 2010 and 2013 was 41.9% and 48%, respectively ,however, the rate of C/S recommended by the World Health Organization for Iran this year has been 15% (Gibbons.etal,2010). One of the reasons for choosing cesarean delivery is fear of childbirth (Nieminen.etal,2009). Some women dread and avoid childbirth despite desperately wanting a baby. This is called Tocophobia that can be primary or secondary Tocophobia is defined as a severe fear of pregnancy and childbirth. There is increasing evidence that Tocophobia may have short-term and long-term adverse effects on mother and baby (Pazzagli et al.,2015). Physical and emotional consequences associated with fear of childbirth include voluntary infertility, pregnancy complications, increased use of analgesics during labor, increased labor interventions, increased duration of labor, postpartum depression, post-traumatic stress disorder (PTSD), impaired mother-infant bonding and increased elective and emergency cesarean- sections may lead to low birth weight and preterm labour (Rouhe.etal,2011)..The role of a woman as a mother and her relationship with her infant, and family are influenced by these consequences (Vakilian et al., 2018)..

[1,2] *Maternal and neonatal Nursing Department of College of nursing, University of Baghdad, Iraq*

Methodology: A descriptive with analytic element design was conducted throughout the present study among pregnant women at Maternity department in hospitals in Kirkuk City. The study is conducted in the obstetric wards, delivery rooms, operational room, and neonatal intensive care unit(NICU) in three hospitals at Kirkuk city. Determined validity through panel of experts and reliability of questionnaire(Alpha Correlation Coefficient)is(0.86) which considered significant through of pilot study. The study instrument consists of three parts Part One/ Socio-Demographic information includes(8 items). Part Two/Reproductive and antenatal information includes (20 items). Part Three/Fear of Childbirth scale(Wijma Delivery Expectancy Questionnaire)includes(33 items).Part Four Pregnancy Outcomes (Maternal outcomes and Newborn outcomes)includes (14 items).

Results and Discussion

Table (1): Socio-Demographic Characteristics (N=100)

List	Variables		f	%
1	**Age** **Average mean= 22 ±4**	≤ 19 years	23	23
		20 – 29 years	71	71
		30 – 39 years	6	6
2	**Residency**	Urban	59	59
		Rural	41	41
3	**Wife's education**	Not read & write	34	34
		Read & write	15	15
		Primary school	16	16
		Intermediate school	9	9
		Secondary school	6	6
		Institute	9	9
		Graduate degree	11	11
4	**Wife's occupation**	Housewife	74	74
		Student	22	22
		Employee	4	4
5	**Husband's education**	Not read & write	33	33
		Read & write	9	9
		Primary school	24	24
		Intermediate school	8	8
		Secondary school	9	9
		Institute	6	6
		Graduate degree	11	11
6	**Husband's occupation**	Unemployed	81	81
		Employed	19	19
7	**Socio-economic status From study sample point of view**	Insufficient	9	9
		Barely sufficient	59	59
		Sufficient	32	32
8	**The first source of support**	Family	21	21
		Spouse	52	52
		friends	27	27

The table (1) shows that average mean of study sample is (22±4) years, in which more of them are young women in age group (20 -29) years (71%).

Regarding residency, more than half of study sample are resident in an urban area (59%) and the remaining are resident in rural areas (41%).

The analysis of educational level shows that the highest percentage among study sample is referring to "not read and write" (34%), and (16%) of them are graduated from primary school. The educational level among husbands of pregnant women also refer that about third (33%) of them are "unable read and write" and (24%) are graduated from primary school.

The occupational status reveals that (74%) of study sample are housewives and (22%) of them are still students. Among the husbands of study samples, only (19%) of them are employed and more of them are unemployed (81%) .

The socio-economic status refers that more than half (59%) of study sample are considered barely sufficient socioeconomic status and (32%) of them are considered sufficient socioeconomic status from their point of view.

Related to the first source of support, half (52%) of study sample are reporting that "spouses" are the first source of support ,while (21%) of them are reporting that "family" are the first source of support, and (27%) of them related to "friends" of study sample.

Table (2): Reproductive Characteristics of the study sample (N==100)

List	Variables		f	%
1	**Age at marriage Average mean= 20±3**	< 15 years	4	4
		15 – 20 years	53	53
		21 – 25 years	30	30
		26 – 30 years	13	13
2	**Age at first pregnancy Average mean= 21±3**	< 15 years	3	3
		15 – 20 years	49	49
		21 – 25 years	32	32
		26 – 30 years	13	13
		31 ≤ years	3	3
3	**Gravidity**	Primi	76	76
		2	18	18
		3	4	4
		4	2	2
		5	0	0
4	**Number of abortion**	None	80	80
		1	18	18
		2	2	2
5	**Number of lived child**	None	76	76
		1	18	18
		2	6	6
6	**Number of stillbirth**	None	97	97
		1	3	3
7	**Use of contraceptive**	No	62	62
		Yes	38	38
8	**Contraceptive method**	None	62	62
		Condom	9	9
		Tablet	27	27
		IUD	1	1
		Injection	1	1
9	**Mode of previous deliveries**	None	76	76
		Vaginal	24	24
		Cesarean	0	0
10	**Types of previous feeding**	None	76	76
		Breast	0	0
		Bottle	18	18
		Mixed	6	6
11	**Pregnancy interval**	None	76	63
		< 2 year	19	28
		2 – 4 years	3	8
		5 – 7 years	1	1
12	**Current gestational age**	33 – 37 weeks	60	60
		38 – 42 weeks	40	40

The table (2) presents the variables related to reproductive history of study sample ; the finding shows that the average mean of age is (20±3) years and (53%) of pregnant women are married at age (15-20) years that is the same age group at their first pregnancy (49%), the average mean for their age at fist pregnancy is (21±3) years.

The gravidity number is referring that more than half of study samples are primigravida (76%) and (18%) of them are having (2) gravida.

More of pregnant women are reporting that they haven't abortion (76%), but (18%) of them reporting that they have (1) abortion. Only (18%) of pregnant women showing that have (1) lived child, and (5%) have (2) lived child. Only (3%) of them are reporting that have (1) stillbirth.

Regarding using of contraceptive methods, only (38%) of study sample was using contraceptive methods, and (27%) of the study samples are using tablets coral contraceptive.

The mode of previous deliveries for pregnant women is referring that (24%) of study sample delivered normal vaginal delivery, and (18%) of them previously fed their baby artificially (bottle feeding).

The pregnancy interval among pregnant women is referring to (< 2 years) as presented by highest percentage (19%).

The current gestational age is refers to (33-37) weeks among (60%) of study sample while (40%) of them is referring to (38-42) weeks.

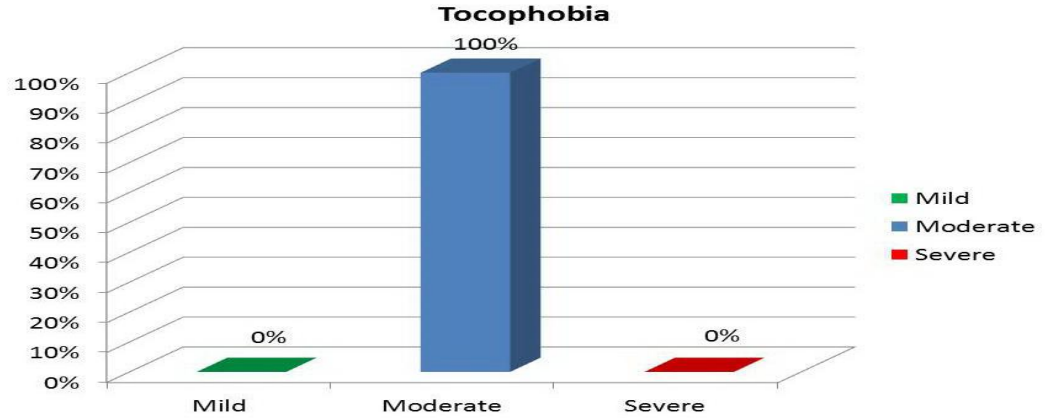
Table (3): Prenatal Variables of the study sample (N=100)

List	Variables		f	%
1	**Prenatal visits**	None	22	22
		Regular	14	14
		Irregular	64	64
2	**Exercise during pregnancy**	No	100	100
		Yes	0	0
3	**Participating in childbirth preparation classes**	No	100	100
		Yes	0	0
4	**Information about childbearing process**	No	42	42
		Yes	58	58
5	**Trust in health personnel**	No	100	100
		Yes	0	0
6	**Wanted pregnancy**	No	0	0
		Yes	100	100
7	**Preferred delivery mode**	Vaginal	0	0
		Cesarean	100	100

The table (3) shows that more than half (64%) of study sample are reporting that they have irregular prenatal visits ,while (14%) are reporting that they have regular visits.

All (100%) of study sample reported that they are didn't exercise or participating in childbirth preparation classes during pregnancy , they mistrust in health personnel and beside they wanted their pregnancy and they prefer cesarean section as a mode of delivery.

Figure (1): Overall Assessment of Tocophobia (Wijma Delivery Expectancy Questionnaire) among Pregnant Women (N=100)



Mild = 33 – 88
Moderate = 89 – 143
Severe = 144 – 198

The Figure (1) shows that all (100%) of the study sample under the study are experienced moderate level of tocophobia as referred by the total score of the scale

Table (4): Assessment the Signs and Symptoms of Tocophobia distributed according to Dimensional Factors (Wijma Delivery Expectancy Questionnaire) (N=100)

Factors	Item's Description	M.S	SD	Assess.*
Concerns about labor pain	Fantastic	6.00	0.000	Not fantastic
	Frightful	1.00	0.000	Extremely
	Afraid	1.00	0.000	Extremely

	Tense	1.00	0.000	Extremely
	Composed	6.00	0.000	Not compose
	Relaxed	6.00	0.000	Not relaxed
	Panic	1.00	0.000	Extreme panic
	Pain	1.00	0.000	Extreme pain
Lack of positive behavior	Behave badly	1.46	1.410	Extreme badly
	Not let happen	4.40	2.344	Moderately
	Lose control	3.30	2.505	Moderately
	Dangerous	1.00	0.000	Extreme dangerous
Loneliness	Lonely	1.00	0.000	Extremely
	Deserted	1.00	0.000	Extremely
	Desolate	1.00	0.000	Extremely
	Abandoned	1.00	0.000	Extremely
	Hopelessness	1.00	0.000	Extremely
	Self-confident	5.95	0.500	No self-confidence
	Trust	6.00	0.000	Not trust
Lack of positive feeling	Strong	6.00	0.000	Not strong
	Confident	6.00	0.000	Not confident
	Safe	6.00	0.000	Not safe
	Independent	6.00	0.000	Not independent
	Glad	6.00	0.000	Not glad
	Proud	6.00	0.000	Not proud
	Happy	6.00	0.000	Not happy
	Longing for child	2.08	1.818	Moderately
Concerns about childbirth	Joyful	6.00	0.000	Not funny
	Natural	6.00	0.000	Not natural
	As expected	6.00	0.000	Not self-evident
Concerns about baby	Fantastic that child would die	6.00	0.000	Very often
	Fantastic that child would be injured	6.00	0.000	Very often
Overall tocophobia		***2.00***	***0.000***	***Symptomatic***

The table (4) presents the mean of scores and standard deviation for the items of tocophobia scale distributed on the dimensional factors; the assessment for items related to factors **concerns about labor pain** indicates that pregnant women are *extremely frightful, afraid, and tense, panic, and having extreme pain*.

The assessment of items related to **lack of positive behavior** factor indicates that pregnant women are showing *extreme badly behavior, and dangerous; and moderately loss of control.*

Regarding the factor of **loneliness**, the mean scores indicate that the pregnant women are feeling of *extremely lonely, deserted, desolate, abandoned, and hopelessness*.

The mean scores of items related to factor of **lack of positive feeling** show that pregnant women are only feeling that birth is *moderately longing for child*, while the remaining items were not significant.

The items related to factor **concerns about childbirth** were show not significant among pregnant women.

The items related to **concerns about baby** were show that pregnant women are *very often fantastic that child would die and injured*.

As overall assessment the result shows the high level of mean score(2) of the study sample were exposed to such signs and symptom

Table (5): Effects of Tocophobia on Maternal Outcomes (N=100)

Outcome	**No**		**Yes**	
	F	**%**	**f**	**%**
Prenatal and postnatal depression and insomnia	0	0	100	100
Feel worthless because they cannot cope with a natural female experience	64	64	36	36
Planned for termination of pregnancy	84	84	16	16

Request an elective cesarean section to avoid facing vaginal delivery	11	11	89	89
Not bond early with their babies	22	22	78	78
Prolonged the duration of labor	41	41	59	59
Instrumental delivery	89	89	11	11
Thinking maternal in suicide	100	100	0	0
Sterilization	100	100	0	0

The table (5) represents the maternal outcomes among pregnant women; the table shows that all (100%) of study sample are having Prenatal and postnatal depression and insomnia; only (36%) of them are feeling worthless because they cannot cope with a natural female experience; (16%) are planned for termination of pregnancy;(89%) of them are requesting an elective cesarean section to avoid facing vaginal delivery; (78%) of them are not bonding early with their babies; (59%) of them are reporting a prolonged the duration of labor; and only (11%) of them are reporting that they undergone instrumental delivery.

Table (6): Effects of Tocophobia on Newborn Outcomes (N=100)

Outcome	**No**		**Yes**	
	F	**%**	**F**	**%**
Low birth weight (below 2.5 kg)	24	24	76	76
Admitted the newborn at intensive care	0	0	100	100
Poor breastfeeding	18	18	82	82
Prematurity labor	70	70	30	30
Newborn death	94	94	6	6

The table (6) represents the newborn outcomes among pregnant women; the table shows that (76%) of them having low birth weight child; all(100%) of study sample are reported that they admitted their newborn for intensive care; (82%) reporting of poor breastfeeding; (30%) were having premature labor; and only (6%) were having newborn death.

Discussion

The study sample character are (71%) of them are within age group (20-29) years, more half of them their resident in urban area and (41%) were from rural area, more than one third (34%) and (33%) of study sample and their husbands not read and write respectively, their occupation (74%) of study sample housewives and (81%) of their husbands are unemployed, more than half of study sample considered their socio economic status barely sufficient from their point of view , also (52%) of them they reported that their spouses are the first source of support according to (O'Connell et al,2015)certain socio demographic factors associated with Tocophobia we stated that young maternal age, maternal age greater than 40 years, high socioeconomic status, low education level unemployment, single marital status and anxiety before or during pregnancy the majority of these factors coincide with study sample characteristics. A women who feels supported by partner during and after pregnancy may feel happier and less stressed, lower stress during pregnancy may help infants too (Husney &Romito,2019).

The reproductive criteria included (60%) 0f study sample married at age(15-20)years, (49%) be pregnant for first time at age(15-20)years, (76%) of them are nulliparous and gravida one, the majority (80%) (97%)with no abortion and still birth respectively. More than half study sample (62%) never used contraceptive methods previously and the current gestational age of the study sample (33-37)weeks for (60%) of them. According to table(2),(64%) of study sample reported that they visit for prenatal care irregularity, more than half(58%) of them they got in formation about labor while(42%) are not. All(100%) study sample they didn't practice exercise or participate in childbirth preparation classes during pregnancy, moreover they mistrust in health personnel although they wanted their pregnancy they prefer c/s as a mode of delivery. (Hildingsson et al ,2011)concluded that prenatal counseling or having an elective c/s birth does not seem to be a solution for relieving childbirth fear. (Sen et al,2015) reported that of (315)pregnant women there was a significant relationship between delivery fear and age ,education, income ,the number of

pregnancies problem in pregnancy, planning of pregnancy, prenatal health monitoring visits, getting information related to birth, being influenced by this information talking about birth with people, and hearing about bad birth experiences($p<0.050$) they concluded that women need to get appropriate information from health professionals to deal with childbirth related fear, although all the study sample mistrust in health personnel. Maybe culture factors, environmental factor and parity are likely to influence reported levels of childbirth fear, such as previous obstetric complication, women personality, low self-esteem or lack of social support and obstetric interventions.

In current study most of study sample experience Tocophobia although they hadn't experience labor (nulliparous) and first time pregnant women be more anxious from unknown practice of birth on the other hand there is a relationship between parity and Tocophobia because of previous negative experiences.

The table (4) presents the mean of scores and standard deviation for the items of Tocophobia scale distributed on the dimensional factors; the assessment for items related to factors **concerns about labor pain** indicates that pregnant women are extremely frightful, afraid, and tense, panic, and having extreme pain.

The assessment of items related to **lack of positive behavior** factor indicates that pregnant women are showing extreme badly behavior, and dangerous; and moderately loss of control.

Regarding the factor of **loneliness**, the mean scores indicate that the pregnant women are feeling of extremely lonely, deserted, desolate, abandoned, and hopelessness.

The mean scores of items related to factor of **lack of positive feeling** show that pregnant women are only feeling that birth is moderately longing for child, while the remaining items were not significant.

The items related to factor **concerns about childbirth** were show not significant among pregnant women.

The items related to **concerns about baby** were show that pregnant women are very often fantastic that child would die and injured.

As overall assessment the result shows the high level of mean score(2) of the study sample were exposed to such signs and symptoms. This results agree with study of (O'Connell. et al, (2017) & Tohill.et al,(2014) who stated that the prevalence of Tocophobia is estimated at 14% and appears to have increased in recent years (2000 onwards)., but disagree with study conducted by (Gao.et al,2015) who reported that, the pregnant women in Chinese with moderate levels of fear of childbirth (no Tocophobia).

All (100%)of study sample are having prenatal and post natal depression and insomnia, more of them are requesting an elective cesarean section to avoid facing vaginal delivery, (78%) of the are not bonding early with their the duration of labor. This results coincided with studies (Tohill.etal,2014;Adams.etal,2012; Nillsson.etal,2012; & Fenwick.etal,2009). These studies found that pregnant women who are exposed to severe fear of childbirth are more likely to have depression before childbirth and after childbirth and also insomnia, and they request a cesarean delivery instead of natural and the lack of bonding between them and their children and the length of the delivery period and also need to intervene assistive devices for vaginal delivery.

The results of current study conclude that, pregnant women with Tocohpoia inform of overnight nightmares, emergence of physical signs and constant anxiety cause the pregnant women with Tocophobia even if accept vaginal birth despite reluctance to avoid it, this fear leads to overestimate of the pain and reduces ability to deal with pain that results in lack proper use their own ability and using operative intervention vaginal delivery during delivery process.

The result of study shows in table (6) that (100%) all women are reported that they admitted their newborn to ICU, (82%) reporting of poor breastfeeding, and (76%)of them having low birth weight child. The results of own study agree with (Khashan.et al,2008). When a woman is exposed to a severe event during pregnancy, such as fear of childbirth, this negatively affects her health and the health of her fetus, which leads to a lack of growth of the fetus inside the mother's womb(IUGR) and this cause preterm birth and effects on the child has a weight of less than (2.5kg).

The current results lead to conclude that, the pregnant women with Tocophobia preferred and requested cesarean section as a mode of delivery to avoid facing vaginal delivery, this results admitted newborn to intensive care units (ICU) because women with C/S consider a high risk case. As well pregnant women with Tocophobia is very worry and do not care about herself and newborn leads to poor bonding and breastfeeding , because intense fear of childbirth that leads to change eating habits and causes Intra Uterine Growth Restriction (IUGR) that effect on weight of newborn(low birth weight).

Recommendations:

Nurse /midwife need to deal and counseling with childbirth fear by providing appropriate information about pregnancy and labour during pregnancy through lecture, films, and preparation classes .Need to early detection and treatment of fear of childbirth through create unit at primary health care centers and hospitals for psychotherapy.

REFERENCES

1. Pinter & Martin; 2013Dick-Read G. Childbirth Without Fear. London
2. World Health Organization. WHO statement on caesarean section rates. 2015.Availablefrom:http://www.who.int/reproductivehealth/publications/maternal_perinatal_health/cs-statement/en/.
3. Gibbons L, Belizán JM, Lauer JA, Betrán AP, Merialdi M, Althabe F. The global numbers and costs of additionally needed and unnecessary caesarean sections performed per year: overuse as a barrier to universal coverage. Geneva: World Health Organization; 2010.
4. Nieminen K, Stephansson O, Ryding EL. Women's fear of childbirth and preference for cesarean section—a cross-sectional study at various stages of pregnancy in Sweden. Acta Obstet Gynecol Scand. 2009; 88(7):807-13. doi: 10.1080/00016340902998436. PMID: 19488882.
5. Adams, S. S., Eberhard-Gran, M., & Eskild, A. (2012). Fear of childbirth and duration of labour: a study of 2206 women with intended vaginal delivery.
6. Pazzagli, C., Laghezza, L., Capurso, M., Sommella, C., Lelli, F., & Mazzeschi, C. (2015). Antecedents and consequences of fear of childbirth in nulliparous and parous women. *Infant mental health journal*, *36*(1), 62-74.
7. Vakilian, K., Zarin, F., & Zaraj, H. (2018). The relationship between perceived social support in pregnancy and self-efficacy for childbirth fear-A cross-sectional study in Arak city, 2017. *The Open Public Health Journal*, *11*(1).
8. Fenwick J, Toohill J, Creedy D, Smith J, Gamble J. Sources, responses and moderators of childbirth fear in Australian women: a qualitative investigation. Midwifery. 2015;31(1):239-46.
9. Gao, L., Liu, X. J., Fu, B. L., & Xie, W. (2015). Predictors of childbirth fear among pregnant Chinese women: A cross-sectional questionnaire survey. *Midwifery, 31*(9), 865–870. doi:10.1016/j.midw.2015.05.003
10. Khashan AS, McNamee R, Abel KM, Pedersen MG, Webb RT, Kenny LC, et al. Reduced infant birth weight consequent upon maternal exposure to severe life events. Psychosomatic medicine. 2008;70(6):688-94.
11. O'Connell, M., Leahy-Warren, P., Khashan, A. S., & Kenny, L. C. (2015). Tocophobia–the new hysteria?. Obstetrics, Gynaecology & Reproductive Medicine, 25(6), 175-177.
12. O'Connell MA, Leahy-Warren P, Khashan AS, Kenny LC, O'Neill SM. Worldwide prevalence of tocophobia in pregnant women: systematic review and meta-analysis. Acta obstetricia et gynecologica Scandinavica. 2017;96(8):907-20
13. Rouhe H, Salmela-Aro K, Gissler M, Halmesmaki E, Saisto T. Mental health problems common in women with fear of childbirth. BJOG. 2011;118(9):1104-11.
14. Toohill J, Fenwick J, Gamble J, Creedy D. A randomized controlled trial of a psycho-education intervention by midwives in reducing childbirth fear in pregnant women. Birth. 2014;41(4):384-94.
15. Hildingsson, I., Nilsson, C., Karlström, A., & Lundgren, I. (2011). A longitudinal survey of childbirth-related fear and associated factors. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, *40*(5), 532-543.
16. Sen, E., Dal, N. A., Dağ, H., & Senveli, S. (2015). The reasons for delivery: Related fear and associated factors in western Turkey. *Nursing Practice Today*, *2*(1), 25-33.
17. Adam husney & Kathleen romito .Partner support during pregnancy Healthis2019. Available at https://www.mottchildren.org/health-library/abp7352.
18. Nilsson C, Lundgren I. Women's lived experience of fear of childbirth. Midwifery. 2009; 25(2): e1-e9.