

Study the Prevalence and the Reasons of Low Birth Weight in Razavi Khorasan

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ABSTRACT

Low birth weight is one of the important sanitary elements in evaluating prenatal care all over the world. So it can be prevented by recognizing its reasons. Investigating the prevalence and reasons of low birth weight in Razavi Khorasan. This research is conducted in casual – comparative method. At first, all newborn babies, born Farvardin up the end of February in 2012 at three maternities and hospitals were selected for investigating on prevalence of low birth weight than 501 newborns with low and 501 ones with normal weight were selected by random and their mothers answered the questionnaire of biological, cognitive, psychological and social characteristics by 85 % in validity. The investigated variations of this research include evaluation of mother nutrition, its importance in pregnancy period, two pregnancies gap, mother age in pregnancy, cardiac, renal and digestive disease records of mother, air pollution, harmful effect of exposing Cigarette, mother education, Marital satisfaction, suitable mobility and rest, mother awareness of relaxation importance in pregnancy period and dangerous factors for fetus. For data analysis, linear logarithm model was used by hierarchy elimination method. Prevalence of low birth weight was 6.53% in Razavi Khorasan. There is meaningful relation between above mentioned factors and low birth weight ($p=0/000$). Nearly as in European countries, prevalence of low weight in Razavi Khorasan is slight. By recognizing some dangerous factors of low birth weight in Razavi Khorasan, it can be prevented.

KEYWORDS: Prevalence, Low Birth Weight, Biological, Cognitive, Psychological and Social Characteristics.

1. INTRODUCTION

The term “low weight” is referred to the new born babies born with under 2500 gr weight. Weight is one of vital factors in health. Because, newborns with low weight are more susceptible to die and suffer from insufficiencies than others (1)

Death in low weight newborns is forty times more than normal ones (2). Besides, it can be one of important and significant in causing physical, mental, sensory-motor problems. Remarkable numbers of infants with cerebral palsy is related to the newborn babies born with weight under 2.5 kg (3). There is negative correlation between cognitive physical growth and low weight (4). Moreover, the researches show that low birth weight may have relation with disorders

Like ADHD (Attention-Deficity/Hyperactivity Disorder) (5), slow progress in educational activity (6) and motor problem in lifespan development (7). So birth weight is one of the significant sanitary criteria in any country since it is vital in normal development and also for survival of newborn babies. Annually, 15.5% namely over 20 million infants born with low weight. This number is 7% in developed countries, 16.5% in less developed and developing countries and 18.6% in under developed countries. In continents, prevalence of low birth weight is 14.3% in Africa, 18.3% in Asia, 6.4% in Europe, 10% Latin America and Caribbean Island, 7.7% in North America and 10.5% in Oceania. In Iran it was 7% in 1995(8), 11.56% in 2003 and 8 % 2007 and in Isfahan(9), it was 9.5 % in 2009 and in Gilan reports show 6.96 % in 2012(10). So, by recognizing and controlling harmful causes that mostly relates to biological, cognitive, psychological, and social conditions, it can be prevented to have newborns with low weight. The researches show that low birth weight has direct relation to renal and cardiac insufficiencies, respiration problems, mother’s blood pressure, and smoking and drinking alcohol in pregnancy period (11-12). The other investigations show that newborns, whose mothers exposed smoking permanently, have less weight and growth (11-13). The mothers, who smoke cigarette or are exposed smoking, have newborns with low weight. the mothers, that use 10 cigarette papers daily, have newborns with low weight six times more than others and probability of having premature newborns is more for them(14) In comparison to informed ones, the mothers were not aware of harmful causes, had newborns with less weight. Mostly, Prevalence of low birth weight in Asia is due to unfit nutrition before and through the pregnancy period. Based on world Health organization

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(W.H.O) report, the mothers who suffer social and financial deprivation, have newborns with low weight. In this condition, low birth weight traces to mother's unfit nutrition and unhealthy like as infectious disease. In addition, physical hard work during pregnancy period is one of reasons for low birth weight and improper growth (8-17). Studies on nutrition importance illustrate that in health program for pregnant mother, it is necessary to pay more attention to the nutrition instruction, essential knowledge and practical method about it(18-19). The result of research on mothers with low weight newborns show that remarkable percent of the mothers worked hard physically and less numbers had suitable health and sanitary in comparison with normal mothers on physical activity(20) and mobility, research shows that physical activities such as walking especially in second third-month pregnancy, protects newborns against low weight and prematurity(21).

The mothers that are not informed about the importance of rest through pregnancy on fetus had newborns with less weight than informed mothers (10-27). Many researches pay attention to the number of parturition, mother's age in pregnancy and its relation to low weight as a harmful cause (13-20). Moreover, Based on investigations the interval between two births less than 12 months and more than 59 months has meaningful relation with increasing low weight, prematurity, and death of fetus(22-23). The mothers that were ill-treated and did not satisfied Maritally, have newborns with less weight than the other mothers (25-26). The research on mother's education shows that it has meaningful relation to birth weight because of its positive effect on mothers' health, behavior through pregnancy and total situation of family (24-26). Since prevalence of low birth weight is not equal on various sanitary and social conditions, it is necessary to be evaluated in different areas and regions it can be done by recognizing harmful and related factors in low birth weight that is mostly related to biological, cognitive, psychological and social condition. The goal of present research is 1. Scale of low birth weight prevalence in Razavi Khorasan, and 2. Comparison mothers having low weight newborns to other mothers in point of biological, cognitive, psychological and social to inhibit low birth weight due to different characteristics of two groups of mothers with low and normal weight newborns.

2. RESEARCH METHOD

Population, sample and sampling method:

This research is cause- comparative one that was conducted practically. Statistical group includes all the normal and low weight newborns, born from the 1st of Farvardin up to the end of Esfand in 1390(2011_2012 March) with their mothers in Razavi Khorasan. For investigating prevalence of low birth weight ,all newborns of three hospitals and maternites in province were studied Then 501 low-weight newborns and 501 normal ones were selected randomly(simple random) and their mothers answered questionnaire to be compared on biological, cognitive ,psychological and social elements. 18 cases were eliminated for incomplete answers. Finally, we analyzed 501mothers with low weight newborn and 501 ones with normal weight newborns. With regard to W.H.O data on prevalence of birth low-weight in Iran 7% and already recorded research 10% in Razavi Khorasan, confidentially it got 95%(d=0/02) and 900 individuals from intervals of real ratio(28).

$$n_o = \frac{Z_{1-\frac{\alpha}{2}}^2 \frac{pq}{d^2}}$$

$$n_o = \frac{4 \times 0.1 \times 0.9}{0.0004} = 900$$

It states adequacy of representative. Then a questionnaire was provided about biological ,cognitive psychological and social characteristics of parents based on the research result and studied discoveries about birth low-weight in different countries. Its liability was confirmed by respective specialist and guidance professor and consultant and its validity was stated 85 % (9). The biological ,cognitive, psychological and social variations in this research consist of evaluation mother's nutrition, its importance during pregnancy, two pregnancies interval, mother's age in pregnancy period, cardiac ,renal, and digestive disease records of mothers, air pollution, mother's education, Marital satisfaction, suitable mobility and rest ,mother's awareness of its importance during pregnancy. Based on W.H.O criteria, newborn baby with under 2500 gr is considered as low-weight and at or above 2500 gr as normal.

Note: To select newborn and mothers for element comparison is just based on recorded weight in maternities.

For analyzing data, linear logarithm model was used in hierarchy elimination method.

3. RESEARCH FINDINGS

Findings of this research, on birth low-weight occurrence in Razavi Khorasan province and its town and city in the below table indicate that prevalence of birth low-weight throughout province is 6.53%. The most levels (9.43%) are in Sarakhs and the least one (4.12%) in Bardaskan.

Table1:ferquency and percentage of low birth weight based on city and sex in razavi khorasan

City	Total new borns	Frequency&total percentage of newborns under 2kg	Frequency & percentage of boys under 2kg	Frequency & percentage of girls under 2kg
Bakhazr	1167	55(4/7%)	34(62/22%)	21(37/7%)
Bardaskan	1708	31(4/12%)	16(50/76%)	15(49/24%)
taybad	3647	273(7/48%)	136(50/17%)	137(49/83%)
Tahtejolge	1041	57(5/51%)	31(54/46%)	26(45/54%)
Torbatejam	6937	343(4/94%)	176(51/52%)	167(48/48%)
Torbatehdariye	4608	322(7%)	165(51/45%)	157(48/55%)
Chenaran	1658	83(5/03%)	41(50/54%)	42(49/46%)
Khalilabad	1088	66(6/05%)	34(51/74%)	32(48/26%)
khaf	3390	290(8/55%)	149(51/44%)	141(48/56%)
Dargaz	1383	77(5/56%)	38(50/39%)	39(49/61%)
Rashtkhar	1151	82(7/08%)	40(49/43%)	42(50/57%)
Zave	1643	125(7/62%)	65(52/58%)	60(47/42%)
Serakhs	2034	192(9/43%)	102(53/19%)	90(46/8%)
Fariman	1512	95(6/29%)	45(48/34%)	40(51/66%)
Ghuchan	3672	220(6%)	114(51/93%)	106(48/07%)
Kashmar	3616	278(7/68%)	142(51/21%)	136(48/79%)
Gonabad	1818	127(7%)	63(49/83%)	64(50/17%)
Mashhad	65769	3867(5/88%)	1970(50/96%)	1897(49/06%)
Mahvalat	894	73(8/11%)	35(49/21%)	38(50/79%)
Total	108736	7100(6/53%)	3667(51/65%)	3433(48/35%)

Question 1: Is there any relationship between mother’s nutrition evaluation and mother’s awareness of nutrition importance and group membership?

For analyzing data, at first, a three-way contingency table was formed with three group-membership variations (on two levels-under and above 2500 gr), mother’s nutrition during pregnancy(on two levels-under specialist or vice versa) and mother’s awareness of nutrition importance during pregnancy(on two levels yes-no) then the data was analyzed by linear logarithm model.

Table 2: Summary of analysis step in hierarchy elimination for reaching final model

step	model	d.f	G ²	p	Eliminated sentence	d.f Δ	ΔG^2	ΔP
1	(GF)(GA)(FA)	1	.000	.999	(GF)	1	24/11	.491
2	(FA)(GA)	2	.475	.789	(AF)	1	1/536	.215
3	(GF)(F)	3	2/011	.570	(GF) (F)	3	24/318 1315/687	.000 .000

Note: G=Group membership, F= Food evaluation, A= awareness of nutrition importance

The results of table 2 illustrate that the linear logarithm model could reach the best fitting in the third step and came up with a two-way interaction as well as a significant main effect with elimination of interactions under specialist during pregnancy* awareness of nutrition importance and group membership* awareness of nutrition importance during pregnancy. Therefore, it concludes that there is meaningful relation between group membership and being under specialist for mother during pregnancy ($G^2 = 24/318$ & $p = .000$). Moreover mother’s awareness of nutrition importance is meaningful ($G^2 = 1315/687$ & $p = .000$). So, it results that mother’s unfit nutrition during pregnancy is significant factor in low birth weight and has meaningful relation is more intensive in lack of awareness in mother about nutrition importance during pregnancy it was shown in the table 3, the result of frequencies contingency and observed percentage for interaction of group membership* evaluating mother’s nutrition in pregnancy.

Table 3: Contingency of frequencies and observed percentage for two-way interaction related to final model.

Group membership	Evaluation of mother’s nutrition	
	under specialist	Non- under specialist
< 2/5 kg	35(3/5%)	466(46/5%)
>2/5 kg	85(8%)	416(41/5%)

The data of respective table demonstrate that 3/5% of mothers with low weight newborns were under nutritionist in pregnancy although this scale is 8.5% for mothers with normal weight newborns. Besides, 46.5% of mothers with low weight newborns were not under nutritionist but this scale was 41.5% for mothers with normal weight newborns.

As a result, mother’s unfit and insufficient nutrition in pregnancy is a remarkable factor and related to low birth weight.

Question 2: Is there any relationship between pregnancy interval and mother's age in pregnancy with group membership?

To analyze the data, firstly the three-way contingency table was formed with three variables-group membership (with two levels under and above 2500 gr) pregnancy interval (in three levels under two years, 2-5 years, over 5 years) mother's age in pregnancy period (in three levels under 19 years old, 20-35 years old, older than 36 years old) then the data was analyzed by linear logarithm model.

Table4: Summary of analysis step in hierarchy elimination for reaching final model.

step	model	d.f	G ²	p	Eliminated sentence	d.f Δ	Δ G ²	Δ P
1	(GI)(GA)(IA)	4	.001	1/000	(IA)	4	1012/013	./048
					(GI)	2	24/404	./000
					(GA)	2	52/124	./000

Note:G= Group membership,A= age in pregnancy,I= interval of pregnancy

The numbers of table 4 show that in linear logarithm model, no interaction was eliminated and in the first step, the best fitting was reached and three meaningful two-way interactions were achieved. So the result is that there is meaningful relation between group membership and two pregnancies interval ($G^2=24/404$ & $P=0/000$). In addition, there is meaningful relation between group membership and mother's age in pregnancy period ($G^2=52/124$ & $P=0/000$). Besides, there is meaningful relation between pregnancy age and two pregnancies interval ($G^2=1012/013$ & $P=0/048$). So it concludes that two affective factors in low birth weight are mother's age in pregnancy period and two pregnancies interval. The results of frequency contingency and observed percentage were shown in table 5 for interaction of group membership * two pregnancies interval and group membership * mother's age related to ultimate model.

Table 5: Frequencies contingency and observed percentage for two-way interactions of final model

Group membership	Two pregnancies interval			Mother's age in pregnancy period		
	under two years	2-5 years	over 5 years	under 19 years	20-35 years old	older than 36
< 2/5 kg	276(27/6%)	170(17%)	55(5/5%)	184(18/4%)	171(17%)	146(14/5%)
>2/5 kg	260(26%)	173(17/3%)	68(6/8%)	145(14/5%)	255(25/5%)	101(10/1%)

The data in table 5 show that 27.6% of mothers with low weight newborns had another pregnancy in two years, but this scale for mothers with normal weight was 26%. Furthermore, 14.6% of mothers that had newborns under 2.5 kg (low weight), were older than 36 years old and this number was 10.1% in mothers with normal weight newborns.

Therefore, with regard to these meaningful differences, we conclude that two crucial factors in low birth weight are another pregnancy under two-year interval and pregnancy in age of older than 36 years old.

Question 3: Is there any relation between group membership, record of cardiac, renal, digestive diseases of mother and air pollution?

To analyze the data, initially, the three-way contingency table was designed with three variables-group membership (under and over 2.5 kg) cardiac, renal and digestive records (on two levels yes-no) and expose to air pollution (on two levels yes-no) then linear algorithm model was used for analyzing the data.

Table6: Summary of hierarchy elimination in analyzing step for achieving final model

step	model	d.f	G ²	p	Eliminated sentence	d.f Δ	Δ G ²	Δ P
1	(GB)(GA)(BA)	1	./669	./413	(BA)	1	1/275	./259
2	(GB)(GA)	2	1/944	./37	(GB)	1	3/183	./074
3	(GA)(B)	3	5/127	./163	(GA)	1	51/148	./000
					(B)	1	1003/703	./000

Note: G= Group membership, B= Before disease, A= Air pollution

The data of table 6 show that the linear logarithm model got the best fitting in third step by eliminating interaction of cardiac, renal and digestive disease records in mother* air pollution and group membership and mother's disease records and a two-way interaction and a fundamental meaningful impact were found. So it concludes that there is meaningful relation between exposing mother to polluted air and group membership ($G^2=51/148$ & $P=0/000$).

In addition, effect of mother's disease record factor become meaningful($G^2=1003/703$ & $P=0/000$). So it concluded that two crucial factors related to low birth weight are mother's disease record to cardiac, renal and digestive and to be exposed to air pollution. It was shown in table 7, the result of frequencies contingency and observed percentage for interaction of group membership * disease record and group membership * air pollution.

Table 7: Frequencies contingency and observed percentage for two-way interactions of final model

Group membership	Disease record		Air pollution	
	Yes	No	Yes	No
<2/5 kg	30(3%)	471(47%)	23(2/3%)	478(47/7%)
>2/5 kg	18(1/8%)	483(48/2%)	4(4%)	497(49/6%)

The result of table 7 demonstrates that 3% of mothers, with low weight newborn, had cardiac, renal and digestive disease record while it was 1.8% in mother with normal weight newborn. Besides, 2.3% mothers with low weight newborn were exposed to polluted air though 4% of mothers with normal weight newborn had the exposure to air pollution.

So, notice that the relations are meaningful, we conclude that two significant factors in low birth weight are mother’s cardiac, renal and digestive disease record and air pollution.

Question 4: Is there any relationship between mother’s education and Marital satisfaction to group membership?

In order to analyze the data, basically a three-way contingency table was formed with three group membership variation(on two levels under and over 2/5 kg) mother’s education(on four levels, illiterate& primary, under graduate, diploma up to B.A or B.S degree, M.A degree and more) and Marital relationship(on three levels low, moderate and high). Hence, linear logarithm was used to analyze the data.

Table8: Summary of hierarchy elimination in analyzing step for achieving final model

step	model	d.f	G ²	p	Eliminated sentence	d.fΔ	ΔG ²	ΔP
1	(GS)(GE)(SE)	6	.200	1/000	(GE)	2	12/897	./000
					(GS)	2	200/859	./000
					(SE)	6	1123/361	./000

Note: G=Group membership, E=Education, S= satisfaction of marriage.

The result of table 8 shows that the linear logarithm model could reach the best fitting in the first step and got three two-way meaningful interaction. As a consequence, there is meaningful relationship between group membership and mother’s education (G²=128/897&P=0/000). There was also meaningful relationship between group membership and Marital satisfaction (G²=200/859& P=0/000). Accordingly, there was meaningful relationship between Marital satisfaction and mother’s education (G²=1123/361&p=0/000). So we conclude that two main factors in low birth weight are low education of mother and marital dissatisfaction. The results of frequencies contingency and observed percentage was shown in table 10 for interaction of group membership and marital satisfaction, group membership and mother's education related to final model.

Table 9: contingency of frequencies and observed percentage for two-way interaction related to final model.

group membership	marital satisfaction			Mother's education			
	Low	Moderate	High	illiterate & Primary	Undergraduate	Diploma up To B..A. or B.S.	M.A or M.S degree and above
<2/5 kg	173(17/3%)	165(16/5%)	161(16/1%)	45(4/5%)	183(18/3%)	256(25/6%)	15(1/5%)
>2/5 kg	55(5/5%)	144(14/4%)	301(30/1%)	15(1/5%)	174(17/4%)	260(26%)	51(5/1%)

The results of table 9 show that 17.3% of mothers with low weight newborn had less satisfaction in their marital life though this scale is 5.5% for mothers with normal weight. Furthermore, 22.8% of illiterate and under graduated mothers had low weight newborn but it was 18.9% in mothers with normal weight. So with notice that these relations are meaningful we conclude that two important factors in low education and marital dissatisfaction.

Question 5: Is there any relationship between group membership and mother's suitable mobility and rest and their awareness about rest and sleep importance during pregnancy?.

For analyzing data, first of all a three- way contingency table was formed with three variables of group membership(into levels under and above 2.5kg),Suitable mobility and rest of mother during pregnancy(in two levels yes-No)and mothers awareness of sleep and rest importance during pregnancy (in two levels yes-No).

Table 10: summary of analysis step in hierarchy elimination for obtaining final model

step	model	d.f	G ²	p	Eliminated sentence	d.fΔ	ΔG ²	ΔP
1	(GM)(GA)(AM)	1	3/843	.050	(GM)	1	57/679	./000
					(GA)	1	43/651	./000
					(AM)	1	6/920	./009

Findings of table 10 demonstrate that linear logarithm model it delete no interactions and in the first step reached the best fitting and three meaningful has gotten. So we get the result that there is meaningful relation between suitable mobility and rest of mother and her awareness of it during pregnancy ($G^2 = 6/920$ & $p = .009$). there is meaningful correlation between group membership and mothers mobility and rest ($G^2 = 57/679$ & $p = .000$). Mover, there is meaningful relation between group membership and mothers awareness of sleep and rest importance during pregnancy ($G^2 = 43/651$ & $p = .000$). So two important factors in low birth weight are mothes suitable mobility and rest and her awareness of its importance during pregnancy and these two factors in interaction with eachothers, plays decesive role in newborns birth weight. The results of frequencies contingency and observed percentage were shown in table 11 for interaction group membership * suitable mobility and rest of mother during pregnancy group membership * mothers awareness of sleep and rest importance during pregnancy.

Table 11: Frequencies contingency and observed percentage for two-way interactions of final model.

Group membership	Mobility and rest		Awareness of sleep importance	
	Yes	No	Yes	No
<2/5 kg	314(31/4%)	185(18/5%)	391(39/1%)	108(10%)
>2/5 kg	416(41/6%)	85(8/5%)	461(46/1%)	40(4%)

The conclusions of table 10 show that 18.5% of mother who didn't have suitable mobility and rest in pregnancy, had newborns with low weight but this number is 8.5% in mothers with normal weight. In addition, 10.8% of mothers with low weight newborns were not aware of sleep and rest importance during pregnancy but it is 4% for mothers with normal weight newborns. As a result, two main factors, related to low birth weight, are mother's mobility and rest and their awareness of sleep and rest during pregnancy.

4. DISCUSSION AND CONCLUSION

The results of this research show that it is 6.53%, low birth weight in Razavi Khorasan. Sarakhs has the most low birth weight by 9.43% and Bardaskan the least one by 4.12%. The rate of low birth weight in Razavi Khorasan is equal to the record of W.H.O about prevalence of low birth weight in Iran and is very close to European percentage (8%). But the record of WHO is less than and different from the rate of prevalence of low birth weight of Iran in 2003 and 2007 and the rate in Isfahan (10%). The reason of this difference is method of sampling and sampling population.

We may indicate following reasons for decreasing rate of low birth weight in the province. 1. Increasing sanitary and medical care for pregnancy mother. 2. Suitable weather and geographical condition in the province. 3. Developing mother's education level because of easy approachability of educational institute. Perhaps the more important factor is social and cultural situation which leads o marriage and pregnancy in convenient age and negative view of society to the use of cigarette and alcohol by ladies. The above mentioned points inhabit harmful causes of low birth weight.

With regard to the results of research, mother's nutrition evaluation in pregnancy is indicator of relation of nutrition and its importance with group membership and this such results are consistent with the record of WHO (2004), the studies of Motaya (2009), Khushabi and Sarasvati (2010) and Rastagi and colleagues (8,18,15,19). All above mentioned researches confirm that mother needs fresh and various food during pregnancy because lack of attention to food leads to slow growth of fetus and increase the danger of uterus grow limitation and finally low birth weight. Based on research findings, there is a meaningful relationship between two pregnancies interval and mother's age in pregnancy with group membership. Pregnancy in old age is a related cause to low birth weight. This conclusion is consistent with the studies of Behati (2010), Ving Sakhun and his colleagues (2010) (20,22). Old age of mother leads to some dangers for fetus like as embryonic growth disorders, premature birth, multiple pregnancies. Moreover, when mother's age increases, healthy level decreases. The results of research show meaningful relationship between two pregnancies interval and group membership. So, under two years pregnancy interval is one of main factor for low birth weight. This result is consistent with research finding done by Kandaguadela (2002) and Behati and his colleague (2010)(22,23). If the next pregnancy occurs in short interval or in many times, it leads to the decrease in mother's physical ability, quality and quantity feed fetus by the umbilical cord and it causes premature and low birth weight, There is meaningful relationship between air pollution and group membership based on statistical finding about the connection of mother's cardiac, renal and digestive diseases record and air pollution to group membership. This conclusion is consistent with Bahreman's findings (2007), Vebergla (2007) (11,12).

Smoke aspiration disadjusts endocrine glands, nervous system and as a result, it decreases oxygen level for fetus.

So, Existing carbon monoxide, soot particles and other present contaminant in air leads to the decrease of birth weight and increase of premature danger. In addition, the results indicate that mothers exposed to polluted air and suffer diseases, more likely, have newborns with low weight. This result is compatible with center of

disease control (2007) and Mahafi (2010) (13, 14). The interpretation of finding is that pregnant mothers that are patient face with difficult conditions and One on hand, they suffer their illness and respiratory problems and on the other hand, they are worried about harmful effect on their fetus. So there is no doubt, if an infant born healthily in such condition, he/she suffers from low weight more Probably. Research findings show that there is meaningful relationship between mother's education and marital satisfaction to group membership. This conclusion is consistent with the findings of Framarzi (2005) and kayi (2005)(25,26). Marital dissatisfaction leads to ill treatment to pregnant mother and in turn, this increases the danger of bleeding before parturition and growth limitation of fetus and the stress enhances premature and low weight meaningfully. furthermore, the results show that there is meaningful relationship between mother's education with group membership. As a result, one of the important factors of low birth weight is mother's low education. This finding is compatible with Kayi (2005), Shoaliya (2006)(24,26). Financial poverty inhibits getting birth services like as consultation, training and etc that lead depression and finally low birth weight .Ultimately, findings indicate difference between suitable mobility and rest and awareness of sleep and rest with group membership. This conclusion is consistent with the results of Yunesi (2007), Zarbakhsh (2007) and Taktive(2010)(10,27,21). The mother who has not sufficient care before birth and work hard physically, exposes side effects because physical tiredness and insufficient rest leads to premature birth. Besides probability of abdomen and embryo impact is more for mothers who work hard physically and are not aware of sleep and rest importance. its consequence is bleeding and rupture of uterus and finally premature birth and low birth weight.

Financial hard condition of family is the reason of hard physical activation, lack of suitable rest for mother and also refer to meet family needs and leads to unfit and insufficient nutrition and lack of convenient sanitary and medical condition.

All of them are causes of low birth weight. With regard to findings of research it suggests that some researches are done on other factors related to low birth weight specially about fathers such as father's age,his outcome and wages for complete prevent of low birth weight.

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