

: ,  
 :  
 :  
 •  
 1. 가 가  
 가 , , 가 가  
 , ,  
 ( , 1982).  
 2,500mg  
 가 (Vaughan, 1992).  
 ,  
 ( , 1982).  
 , , ,  
 , 가 ,  
 가 ( , 1981),  
 ( , 1997), Clausen(1977)  
 Villar(1982) , , 가 가  
 ( , 1985).  
 (Behrman, 1992).  
 가 (1990) 72.8%, Avery(1987) 66%,  
 Valdes-Dapena(1970) 89% , (1993) 76.8% ,  
 . 가  
 , (1982) 72.2% 가 ,  
 가 , ( , 1985).

2.

1) K. J.

2) , ,

3) , , , ,

3.

1) : 2,500gm (Behrman, 1992).  
 28 , 1,000mg 2,500gm .

1.

3.3kg , 2.6-4.1kg .

2,500gm (VLBW : very low birth weight infant), 1,000gm  
 (ELBW : extremely low birth weight infant) .

가 . 2/3 , 가  
 (small for gestational age)가 ( ,  
 1997).

1961 2,500gm , 1976 2,500gm  
 , 37 .  
 (VLBW) (ELBW) 가  
 ( , 1982).

(1981) 5.3%, (1982) 6.7%, (1982)  
 10%, (1982) 12.8%, (1984) 8%, (1990) 6.7%, (1992)  
 10.3%, (1993) 5.6% , 8%, 7.4%,  
 6.4% 7% , 12%, 15%, 20%  
 ( , 1992).

1960 Lubchenco (1972) 14.4%, Gordon (1977) 1960  
 12.75% 1970 9.83% , 1970 (1977)  
 10%, (1977) 20.9%, 1970 (1982) 21.6%, (1982)

12.3%, 1980 (1986) 7.0%, (1986) 18.7% .  
2.5kg 37 ( , 1985),  
가  
Lubchencho(1972) 1,500gm 40% 가 10  
10% , 1  
, 가 (1982)  
가 32.5% , 10% 가  
67.5% . 1,250gm  
, 7-8 가  
가  
Behrman(1992) (complicating factor)  
2 , Cruise, Stewart  
2 10  
3 , (sensory neural hearing loss),  
1,000gm 50%, 1,000- 1,500gm 15%, 1501- 2500gm 8%  
, 1,000gm 50%, 1,000- 1,500gm 70- 80% . 1,000gm  
, (107 ) 11%(12 ) ,  
14%(7 ) , 5 (Gesell < 80)  
( , 1985).  
(1978) , (1977) 가  
, Van den Berg (1966)  
( , 1985).  
( , 1993) 가 2,500gm 4.67%,  
2,500gm 0.98% 5  
가  
가  
2.  
(1990) , , ,  
, (1993) 29.1%,  
19.2%, 18.1% ,  
가  
(1982) 가 20 41 ,  
, , , , , ,  
, (1981) 20  
가 , (1982) , (1982)  
( , 1982). (1995) 2,500gm 가 가  
.  
Anandalakhmy(1993), Fielding(1991), (1982) 10

2,500gm 15% 가 , (1994)

10 , (1990) 24

35 가 . 22.6%

(1995) 2,500gm 37 가 ,

가 37 ,

20 37 500gm , 2,500gm

(Johnson, 1980 ; Kaltreider et al., 1980).

Berkowitz (1981)

,

Arias(1982), Main (1985)

, 2 ,

( , 1985), (1975) 가 ,

Fedrick(1976) , (1988)

3 가 , (1990)

가 가 가 .

(1985) 가가 ,

가 가 , 가 가

가 , Eastman(1980) 가

.

Arsenio (1994) , ( : 50kg ), , , .

Eastman Jackson(1980) , , , , ,

, Gruenwald , ,

( , 1984).

1.

2.

1998 1 1998 8 K. J.

108 ,

K. 가

, J.

12

가

3.

가

19 8 2 3 4  
 , 4 ,

4.

SPSS 7.5 Win Program

1)

2)

t-

1.

1)

가 52.8%, 가 47.2% 1:1.1  
 2,251.20 ± 32.01gm , 2,001-2,500gm 83.3% 가  
 , 1,501-2,000gm 13.0%, 1,001- 1,500gm 3.7%  
 Apgar 7.89 ± 1.09 , 8-9 68.5% 가 ,

4-5 19%

2)

108 7 6.5% , , ,  
 (1993) 가 4.67% 1 0.9% .  
 (1978) , (1977) 가  
 , Van den Berg(1966) ,

가 6.5%

2.

1)

, , , , , , , ,

< 2-1> .

| < 2-1>     |     | (N=108) |  |
|------------|-----|---------|--|
|            | N   | %       |  |
| 20- 24     | 6   | 5.6     |  |
| 25- 29     | 50  | 46.3    |  |
| 30- 34     | 44  | 40.7    |  |
| 35- 39     | 6   | 5.6     |  |
| 40         | 2   | 1.9     |  |
| 140- 145cm | 1   | 0.9     |  |
| 146- 150cm | 3   | 2.8     |  |
| 151- 155cm | 18  | 16.7    |  |
| 156- 160cm | 57  | 52.8    |  |
| 161- 165cm | 22  | 20.4    |  |
| 166- 170cm | 7   | 6.5     |  |
| 45kg       | 21  | 19.4    |  |
| 46- 50kg   | 25  | 23.1    |  |
| 51- 55kg   | 41  | 38.0    |  |
| 56- 60kg   | 17  | 15.7    |  |
| 61kg       | 4   | 3.7     |  |
|            | 3   | 2.8     |  |
|            | 67  | 62.0    |  |
| ( )        | 38  | 35.2    |  |
|            | 80  | 74.1    |  |
|            | 28  | 25.9    |  |
| 100        | 38  | 35.2    |  |
| 101- 150   | 32  | 29.7    |  |
| 151- 200   | 21  | 19.4    |  |
| 201- 250   | 7   | 6.5     |  |
| 251        | 10  | 9.3     |  |
|            | 104 | 96.3    |  |
|            | 2   | 1.9     |  |
|            | 2   | 1.9     |  |
|            | 78  | 72.2    |  |
|            | 27  | 25.0    |  |
|            | 3   | 2.8     |  |
|            | 103 | 95.4    |  |
|            | 2   | 1.9     |  |
|            | 3   | 2.8     |  |
|            | 108 | 100.0   |  |

:  $30.08 \pm 3.50$

:  $159.12 \pm 4.52\text{cm}$

:  $51.18 \pm 6.12\text{kg}$



|         | N   | %     |
|---------|-----|-------|
| 1       | 72  | 66.7  |
| 2       | 33  | 30.6  |
| 3       | 3   | 2.8   |
| 0       | 76  | 70.4  |
| 1       | 20  | 18.5  |
| 2       | 8   | 7.4   |
| 3       | 4   | 3.7   |
| 0       | 7   | 6.5   |
| 1 - 5   | 16  | 14.8  |
| 6 - 10  | 58  | 53.7  |
| 11 - 15 | 24  | 22.2  |
| 16 - 20 | 3   | 2.8   |
| ( 57 )  | 47  | 82.5  |
|         | 10  | 17.5  |
|         | 90  | 83.3  |
|         | 12  | 11.1  |
|         | 6   | 5.6   |
|         | 108 | 100.0 |

:  $37.19 \pm 2.42$

:  $1.83 \pm 1.13$

:  $1.36 \pm 0.53$

:  $0.44 \pm 0.78$

:  $8.34 \pm 3.80$

3)

가 20.4% , 가 31.5% , 가 26.9% , 가 40.8% , 가 76.9% , 가 23.1% , 가 65.7% , 가 32.4% , 가 20.4% , 가 23.1% , 가 40.8% .

Eastman Jackson(1980)

4)





(1977) ,

Jose Miguel Belizan (1989) ,

가 ,

6) ,

108 32 29.6% ,

12.1%, 가 7.4%, 2.8%, 1.9% , , ,

0.9% .

가 .

3. , , , ,

, , , ,

t- < 3> .

2,263.68 ± 254.68gm, 2,180.00 ± 113.13gm, 1,870.00 ± 451.33gm ,

가 , (F=3.207,

P=.044).

(1987)

3.1kg ,

1.97kg . , 가

28-30

1,450 ± 70.71gm, 31-34 2,040.62 ± 334.43gm, 35-37 2,232.25 ± 233.63gm, 38-40

2,339.45 ± 199.43gm, 41 2,427.50 ± 32.01gm ,

(F=12.035, P=.000).

(F=12.035, P=.000). 가

(1984) , (1985), (1990) , (1993) .

t-

2,289.61 ± 233.51gm , 2,155.80 ± 340.99gm ,

(t=2.344, P=.021).

, 가

, 가

, 가

, 가

|            | Mean ± SD         | t or F    | P     |
|------------|-------------------|-----------|-------|
| 20- 24     | 2,228.33 ± 258.72 | F= .585   | .675  |
| 25- 29     | 2,263.80 ± 270.49 |           |       |
| 30- 34     | 2,220.45 ± 295.57 |           |       |
| 35- 39     | 2,321.66 ± 185.94 |           |       |
| 40         | 2,470.00 ± 28.28  |           |       |
| 150cm      | 2,265.00 ± 241.31 | F= .892   | .471  |
| 151- 155cm | 2,287.22 ± 340.73 |           |       |
| 156- 160cm | 2,263.33 ± 232.00 |           |       |
| 161- 165cm | 2,160.00 ± 344.25 |           |       |
| 166- 170cm | 2,338.57 ± 134.09 |           |       |
| 45kg       | 2,384.00 ± 88.13  | F=2.085   | .095  |
| 46- 50kg   | 2,215.83 ± 250.86 |           |       |
| 51- 55kg   | 2,144.54 ± 370.83 |           |       |
| 56- 60kg   | 2,358.75 ± 166.42 |           |       |
| 61kg       | 2,170.00 ± 417.61 |           |       |
|            | 2,263.68 ± 264.68 | F=3.207   | .044* |
|            | 2,180.00 ± 113.13 |           |       |
|            | 1,870.00 ± 451.33 |           |       |
|            | 2,232.56 ± 305.46 | t=- 1.161 | .249  |
|            | 2,286.66 ± 162.17 |           |       |
|            | 2,220.00 ± 290.83 | t=- 1.746 | .095  |
|            | 2,340.00 ± 171.01 |           |       |
| 28- 30     | 1,450.00 ± 70.71  | F=12.035  | .000* |
| 31- 34     | 2,040.62 ± 334.43 |           |       |
| 35- 37     | 2,232.25 ± 233.63 |           |       |
| 38- 40     | 2,339.45 ± 199.43 |           |       |
| 41         | 2,427.50 ± 32.01  |           |       |

|   | Mean ± SD         | t or F     | P     |
|---|-------------------|------------|-------|
| 1 | 2,281.22 ± 256.98 | F = .037   | .330  |
| 2 | 2,185.92 ± 322.39 |            |       |
| 3 | 2,180.00 ± 287.29 |            |       |
| 4 | 2,351.40 ± 165.97 |            |       |
| 5 | 2,366.66 ± 144.33 |            |       |
| 1 | 2,256.11 ± 272.58 | F = .037   | .964  |
| 2 | 2,240.30 ± 276.81 |            |       |
| 3 | 2,253.33 ± 384.23 |            |       |
| 0 | 2,264.86 ± 269.65 | F = .989   | .401  |
| 1 | 2,165.50 ± 321.46 |            |       |
| 2 | 2,313.75 ± 212.06 |            |       |
| 3 | 2,315.00 ± 156.73 |            |       |
|   | 2,238.31 ± 293.46 | t = - .626 | .534  |
|   | 2,271.36 ± 196.40 |            |       |
|   | 2,248.27 ± 275.32 | t = - .275 | .784  |
|   | 2,269.33 ± 273.69 |            |       |
|   | 2,243.63 ± 302.43 | t = - .790 | .432  |
|   | 2,290.68 ± 172.14 |            |       |
|   | 2,289.61 ± 233.51 | t = 2.344  | .021* |
|   | 2,155.80 ± 340.99 |            |       |

K.

J.

가

SPSS 7.5 Win Program

1998 1

1998 8

t-



가

1)

2)

1. , , (1992). , 35(12), 1690- 1695.
2. , , 4 (1994). 10 , 37(10), 1937- 1944.
3. , , (1990).
4. (1985).
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6. (1981). , 6(3), 71- 81.
7. , (1982). , 13(3), 51- 60.
8. (1985).
9. , , (1993). , 36(7).
10. , , 4 (1995). 35 , 38(7), 1158- 1168.
11. , , 4 (1995). , 38(4), 582- 589.
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**- Abstract -**

Key concept : Low Birth Weight Infant, Maternal characteristic

# **The Study of Maternal Characteristics of Low Birth - Weight Infant**

Hong, Pil Soon · Park, Kyoung Sook

Hong, Pil Soon : Kwang Hae Hospital

Park, Kyoung Sook : Pusan National University

The purpose of this study was to investigate the characteristics of low birth-weight infants and their's mothers, and to identify the factors which influenced to delivery of L.B.W infants.

The data derived from K. General Hospital and J. obs & gyn clinic in pusan from January, 1998 to August, 1998, which were from mothers of having B. W infants. The

factors used for this study were characteristics of general, obstetrical, environmental aspects and physical and psychological life experiences during pregnancy.

Analysis of data obtained were computerized statistically by using SPSS 7.5 WIN program. the data were analysed as number, frequency, percentage, t-test and ANOVA.

The major results obtained of this study were as follows :

1) Gender that L.B.W infants were male in 47.2% and female in 52.8%, body weight of 2001 2500gm was above 8 in 68.5%, and below 5 in 1.8%.

The L.B.W infants with complications were 7, which were 6.5%. The kinds of malformations were the Cleft palate & lip, Hyper-kalemia, Hypoglycemia, Meningocele, CHD, Down syndrome and each of them marked 0.9%.

2) In the general characteristics of pregnant women, the age group of 25 29 years was the most common as 46.3%. Over 35 years of age, elderly gravidas were in 7.5%. the height of 156 160cm was the most common as 52.8%. pregnant women of below 150cm height was in 3.7%. body weight of 51 55kg was the most common as 38%. pregnant women of below 45kg were in 19.4%. The women with smoking and drinking episodes during pregnancy were 1.9% and 25%. In the status of marriage, married women were in 95.4%, unmarried ones were in 1.9%, and unmarried couples were in 2.8%.

In the obstetrical characteristics of pregnant women, pregnant women with gestational age under 37wks were in 45.4%, and the ones over 38wks were 54.6%. At the methods of delivery, normal spontaneous vaginal deliveries were in 51.9%, which were the most common, cesarian section deliveries were in 47.2%, and breech deliveries were in 0.9%.

In the environmental characteristics of pregnant women, 40.8% of pregnant women lived in house or apartments with stairs, 23.1% of them lived in the high altitude. the pregnant women who ran a household without a helper were in 65.7%.

In the pregnant women who had underwent life experiences of physical and psychological stress during pregnancy. life experiences of physical stresses were described as persistent fatigue due to lifestyle, traumatic experience, illness, move away with an effort, physical impact caused by discord. life experiments of psychological stresses were described as trouble with their husbands, discord with one's husband family, family problems, and conflicts due to environmental factors, etc.

The number of the pregnant women who had complications during pregnancy was 32, which was 29.6% totally. Among them, pre-eclampsia was in 12.1% and the premature rupture of membrane in 7.4%.

3) In the analysis of the general, obstetrical, and circumstantial characteristics and L.B.W infants. There were statistical difference significantly between the gestational age of pregnant women ( $F=12.035$ ,  $P=.000$ ), and the status of marriage ( $F=3.207$ ,  $P=.044$ ), and maternal complication ( $t=2.344$ ,  $P=.021$ ) etc.