THE CORRELATION BETWEEN MATERNALWEIGHT CHANGE DURING PREGNANCY WITH WEIGHT BODY OF BABY BORN IN DR. MOEWARDI HOSPITAL

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The Corelation Between Maternal Weight Change During Pregnancy with Weight Body of Baby Born In Dr. Moewardi Hospital

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ABSTRACT

Background: *Heavy increase of pregnant mother body represent the existence of mother adaptation to foetus growth, while newborn baby body weight represent the part of foetus growth result able to be influenced by heavy increase of mother body during pregnancy. This research purpose knows the correlation between heavy change of pregnant mother body during pregnancy with weight body of baby born in RSUD Dr. Moewardi.*
Methods: *This research type is quantitative descriptive with cross sectional approach. Population used in this research is all of post partum mother birthing in RSUD Dr. Moewardi accounted 354 respondents use sample accounted 78 respondents. Sampling taking technique using accidental sampling. This research instrument use checklist.*
Result: *From result collected by 78 respondents there are weight of less pregnancy mother body accounted by 33 persons (42.3%), appropriate responder counted 32 persons (41%) and excessive responder body weight counted 13 persons (16.7%). Weight of baby body born less counted 15 babies (19%), normallly counted 62 babies (79.5%) and more normally counnted 1 baby (1.3%). The correlation increasing of pregnancy weight body mother with weight of baby body born with spearman's rho value counted 0.228 by significance level counted 0.045, thereby can conclusion that there is correlation between heavy change mother bodies during pregnancy weighing body of baby born.*

Key word: *heavy change of pregnant mother body, weight body of baby born*

INTRODUCTION

A period of pregnancy is a period where a woman need various much more element gizi many than needed in a state of habit (Moehji, 2003). Mother healthy birthing healthy baby. pregnance mother nutrient status before and during pregnancy can influence the foetus growth which is being contained. When normal nutrient status at a period before and during big possibility pregnancy will birth the healthy baby enough normal body weighing month and if pregnant mother experience of less nutrient hence effect to in generating miscarriage, invisible stillborn baby, anaemia, and heavy baby born to lower (Achadi, 2004). Based on data from World Health Organization (WHO), estimated 9,6% from all of birthing in the world at 2005 year is premature, that is about 12,9 million birth. From number of occurence BBLR in middle of Java in 2010 year counted 15.631 (2.69%) and in 2011 year counted 21.184 (15.631%) hence can be

taken by conclusion of occurence number BBLR mount many if compared. Data obtained pursuant to antecedent survey from RSUD Dr. Moewardi Surakarta normal baby birth in 2011-2013 years counted 5790 pregnant mother and baby birth by seksio cesarea in 2011-2013 years counted 3588 pregnant mother.

Based on previous research result by Muwakhidah and Siti Zulaekah, Faculty of medical science with the title the correlation heavy increase of pregnant mother body with baby weighing born in RSUD Dr. Moewardi say that pursuant to 106 heavy increase mean responder pregnant mother body have good enough namely more than 10 kg and from heavy result of baby body born that most mother birth the normal baby (> 2500 gr) counted 58.5% while mother birthing baby BBRL (> 2500) counted 41.5%. This matter show that still height of number BBLR in RSUD Dr.Moewardi from goals of degradation BBLR which is in specifying by Health Department that is 7%.

THEORY

1. **Increasing heavy increase of mother body during pregnancy**

   Heavy body accretion during pregnancy of most resulted from uterus and its contents, bosom, and improvement of volum blood and also dilution ekstraseluler. Small partly heavy accretion the body resulted from change metabolic resulting accretion irrigate the cellular and heaping of new protein and fat so-called mother reserve (Cunningham, et al, 2013).

2. **Factor influence increasing of pregnancy body weight**

   a) Pregnant mother nutrient status

      Nutrient status mother when impregnation and during pregnancy can influence the growth at foetus which content (Alin, 2010).

   b) Pregnancy Inspection

      Pregnancy Inspection purpose to recognizing and identifying the problem of arising out during a period of pregnancy, so that health during pregnant mother can be looked after. Other important matter of mother and baby in good content in a condition healthy and until copy moment (Alin, 2010).

   c) Disease of pregnancy moment

      Disease at the time of pregnancy able to influence the baby weight born among others Diabetes mellitus (DM), chicken pox, etc. Effect of this DM many kinds among others to pregnant mother can experience of the miscarriage, stillborn baby, dead baby after delivering birth (death perinatal) because baby borne too big, suffering edem and disparity at appliance of baby body (Alin, 2010).

   d) Economic Social

      Social and economic factor include the work type, mount the education and pregnant mother knowledge, environmental health and hygiene and also residence height and also corresponding Health Medium usage frequency of pregnancy inspection or antenatal care (ANC) (Alin, 2010).

3. **Weight Body of Baby Born**

   a) Definition

      Body weight born to represent the result from various factor through a process that goes on during staying in womb. (Suparyanto, 2012).

   b) The Increasing of Body Weight and Foetus Growth

      Increasing of body weight at both trimester and third represent the important guide foetus growth. The correlation between increasing of body

weight a period of pregnancy and foetus growth vary according to body weight and body high of before pregnancy. Method which is good to studying the increasing of normal body weight at pregnancy moment by hence correlation between weight to high the woman before pregnancy or BMI hence. (Bobak, et al, 2005)

4. Factors influencing weight body of baby born:

a) Genetic

Role of polimorfisme genetic at mother or foetus and correlation of both with the resistance of foetus growth (Cunningham at al, 2013).

b) Mother age

Peaceful age for the pregnancy and birthing is 20-35 year, pregnancy and birth with risk is age less than 20 year or more than 35 year (Stiani, 2012).

c) Body weight of mother before and during pregnancy

If a woman starts the pregnancy of body weighing less than 100 pound, is risk to birth the small baby a period of pregnancy (KMK) mount at least twofold (Cunningham at al, 2013)

d) Parity

Mother with the parity 1 and > 4 or pregnancy which repeatedly will bear the baby by BBLR is cause the damage at venous wall of uterus, this matter will influence the nutrient to foetus at continuing pregnancy (Stiani, 2012)

e) Mother Nutrient

Nutrient status of mother before and during pregnancy can influence the foetus growth which is being womb. When mother experience of the insufficiency nutrient during pregnancy will generate the problem, good at mother and also at foetus (Waryana, 2010).

f) Cigarette

Cigarette influence the foetus growth by dependen is dose. Cigarette improve the premature birth risk, resistance of foetus growth, and body weight born to lower. (Cunningham et al, 2009)

g) Drug owning teratogenic effec

A number of drug and chemicals can give the ugly impact to foetus growth. tardy growth possible relate to the expression of enzyme phenotypic slowing down metabolism (Alwan, 2008).

h) Disease suffered mother.

5. Weight born the low baby

Weight baby born to lower (BBLR) is newborn baby body weighing born less than 2500 gram. Wight baby born to lower (BBLR) divided to become two faction, that is heavy baby born to lower because premature (obstetrical age less than 37 week) and weight the body according to body weight to a period of pregnancy or referred by neonatus less month-according to a period of pregnancy. Dismature is baby born the body weighing less than body weight ought to a period of pregnancy. Dismature can be happened at preterm, term, and postterm (Wahyuni, S, 2012).

Weight body of newborn baby classification distinguishable that is:

a. normal body weighing baby, that is > 2500 gram
b. baby of body weighing born to lower the (BBLR), that is between 1500 gram - 2500 gram
c. very low body weighing baby (BBLR), where weight born is < 1500 gram

d. Weighing baby born the low ekstrem (BBLER), where weight born is < 1000 gram (Simanjuntak, 2009).

6. **Macrosomia (big baby)**

Macrosomia or big baby is when body weight more than 4000 gram. Cause of macrosomia there are three factors:

1. Genetic factor
2. Increase of body weight mother abundant factor because pattern eat excessive.
3. Factor of pregnancy Mother suffering diabetes melitus, obstetrical sugar of mother blood causing baby become big. Asupan of Carbohydrate or glucose at too high pregnancy mother will induce is same at foetus, because its saving the sugar in the form of fat.

There are correlation between rate of sugar of mother blood during a period of pregnancy of baby weighing born, where mother with the high blood sugar rate have the risk to bear the baby macrosomia counted 10,8 bigger times compared to a mother owning normal blood sugar rate. Therefore, suggested pregnant mother to check the its blood sugar rate during a period of/to pregnancy and control it so that always in norm boundary.

RESEARCH METODOLOGY

Research type AT this research used is quantitative descriptive with cross sectional approach (Hidayat, 2008). This research is done on 4 until 20 August 2014 in RSUD Dr. Moewardi. Sum up the sample equal to 78 people of post partum mother use the accidental sampling. Data collecting use the checklist summed up 6 question.

RESULT AND DISCUSSION

1. **The changes mother weight body**

Table 1. Respondent distribution based on increasing pregnant mother body weight.

Changes pregnant mother body weight	Frequency	%
Less	33	42.3%
Appropriate	32	41.0%
More	13	16.7%
Total	**78**	**100.0**

Seenly result of research above hence known that accretion of pregnant mother body weight pursuant to IMT responder experience of the accretion of body weight according to counted 32 respondents (41,0%). This matter indicate that at pregnancy happened the change metabolic causing accretion of body weight. The accretion come from uterus and its contents, mostly respondents experience of the accretion of body weight less or not appropriate with IMT that is counted 33 respondents (42,3%) and some of small natural respondents of accretion excessive body weight or not appropriate with IMT counted 13 respondents (16,7%).

This matter in enabling because factor influencing, Factors influencing accretion of pregnant mother body weight among others is mother age, activity, health status (disposed conditioner), ambient temperature, knowledge about nutrient, ability buy the food and psychical condition mother and also the condition of social environment. (Lusa, 2010).

This matter support with the research Retnaningsih (2010) with the statistical test by chi square earn the result that there is correlation which significance between pregnant mother knowledge about nutrient status got p value = 0,003 ($p < 0,05$), so that can

be said that if knowledge about good nutrient so nutrient status pregnant mother will be not bad.

2. Weight Body of Baby Born

Table 2. Distribution based on weight body of baby born

Weight Body of Baby Born	Frequency	%
Low (<2800)	15	19.2%
Normally (2800-4100)	62	79.5%
More than normally (>4100)	1	1.3%
Total	**78**	**100.0**

Based on research result above can known that data about weght body of baby born in RSUD Dr. Moewardi, where from 78 respondents there are 15 babies (19,2%) can birthing by low weight body baby, 62 babies (79.5%) birthing by normally weight body baby, and 1 baby (1.3%) bithing by more than normally weight body baby. Seenly result of research above hence known that weight body of baby most at respondents namely birthing the weight body of baby normally counted 62 babies. (79%).

This matter is caused respondents have understood the way of taking care of its foetus to be healthy, to be can born the body weighing born normal like taking care of nutrient status consumed, checking her self or ANC by regular, taking care of activity and lessen stress.

According to research of Komariyah (2008) with the research result there is correlation which significance between knowledge, behavioral with the visit of pregnancy inspection with r value = 0,554 with p value equal to 0.001, therefore inspection during important pregnancy for the fluency of birthing and bisthing the normal baby.

According to Supariasa (2002) expressing that at a period of baby-children under five weight body can be utilized to see the growth rate of physical and also nutrient status, except there are disparity clinic of like dehydrationing, ascites, oedema and existence of tumor. Beside that also body weight can be utilized as base of dose calculation medicine and food. Weight body depict the amount from protein, fat, irrigate and mineral at bone.

Seenly from result of research and theory base submitted by some source of science hence analyzable that there are diametrical comparison between research under colour of existing theory. Where mother owning good nutrient status hence there is increase of weight body of mother according to IMT and will bear the normal body weighing baby also. Important therefore its nutrient consume which enough to pregnant mother hence getting expectation later will bear the normal body weighing baby. giving information to pregnant mother about pregnant nutrient moment need thingking of to be created a healthy mother and can bear the baby robustly and safe.

3. The correlation of increase weight body mother during pregnancy with weight body of baby born

Table 3. Respondents disribution based on the correlation of increase weight body mother during pregnancy with weight body of baby born

Kategory Weight body of baby born	low		normal		More than normally		total		Score rho	p
Kategory change mother body weight	N	%	N	%	N	%	N	%		
less	8	10.3	24	30.8	1	1.3	33	42		
appropriat	4	5.1	28	35.9	0	0	32	41	0.228	0.045
more	3	3.8	10	12.8	0	0	13	16.7		
total	15	19.2	62	79.5	1	1.3	78	100		

Seenly result of research above hence known that change of pregnant

mother body weight pursuant to IMT most respondents experience of the change of body weigth as birthing normal baby that is counted 28 babies (35,9%), that change of mother body weight during pregnancy have to in harmony with grow its flower foetus in mother womb because change of mother body weight during pregnancy very having an effect on with the foetus growth. This matter is supported with the research by Lumbanraja et all (2013), where this research result express that woman with the index of body mass before normal pregnancy will promise the better result for the mother of itself baby and result of baby birth. Heedless pregnancy woman pregnant moment body weight often result the weight body of baby born to lower and improve the perinatal morbiditas and mortalitas.

In this research also known there is change less body weight but birthing baby normally is more than 2800 gram not always bear the baby by BBLR and increase excessive mother body weight but birthing less baby. The mentioned because of baby weight born not only influencing by increase mother body weight during pregnancy and or nutrient status marked with the measurement LILA. There are correlation having a meaning of between body weight born with the pregnant nutrient status mother pursuant to circular size measure arm to the, where mother by LILA < 23,5 cm bear the baby of body weighing born to lower compared to a mother by LILA 23,5 cm, but not always BBLR.

At this research, got more and more in pregnant mother body weight, more and more to increase also baby weight body the baby born. This matter is shown with the statistical test result with the meaning level p value equal to 0,045 because p < 0,05 inferential that between change of mother body weight during pregnancy of weighing body of baby born there are correlation which significant. According to Ota et all (2011), in its research express that there are difference which significance mother body weight before pregnancy and after 24 hour. Pursuant to increase parity of body weight mother show of change significant in primigravida at third trimester. Higher parity show increase of higher body weight. Finally, this research show of there is correlation between amount of increase body weight of mother of baby born body weight by p-value = 0,03 (p < 0,05). By that because needed a good antenatal upbringing and according to standard for monitoring of the existence complications in pregnancy, including increase body weight of pregnancy mother which not appropriate accretion.

CONCLUSION AND SUGGESTIONS

Conclusion

Based on the research result the corelation increasing body weight mother during pregnancy with high body of baby born following:

1. Mother bithing in RSUD Dr. Moewardi according to change of body weight during majority pregnancy namely experience of the increase less body weight or inappropriate of IMT
2. Weight body of baby born in RSUD Dr. Moewardi majority is baby of body weighing born normally
3. This research result inferential that there are correlation between change of mother body weight during pregnancy of weighing body of baby born.

Suggestions

1. To Pregnant Mother At Birthing Hospital

   Is expected to pregnant mother and check it to midwife or center the health consecutively. Consecutively check its pregnancy to officer of health or midwife, hence will get the information with the health at its pregnancy.

2. To Nursing Science

   Is expected to health officer and or midwife also always give the information to mother which with a child and or moment check its pregnancy so that always take care of nutrients status so that remain to be awake better. often give the information to pregnant mother of nutrient status hence expected a mother always mindful of nutrient consumed so that mother knowledge also mount.

3. To Healthy Employee

   Is expected can increasing service to patient especially about its important problem good nutrient status and its influence to borne baby. So that baby borne healthy, do not experience of the ugly nutrient and also handicap.

4. To Researcher Hereinafter

   Need the existence of similar research at different population, to be this research can be compared to and generalizing and expected can good for treatment profession.

5. To Societies

   Society is expected knowing pregnant menu of nutrient which is both for to mother and baby during in the womb.

6. To Healthy Department

   This research result is expected can made one of reference to take the correct policy to society to increase service to society and increase of pregnant mother health and her baby.

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