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DELIVERY OF PRENATAL HEALTH EDUCATION AND PREGNANCY OUTCOMES IN SELECTED AETA TRIBES IN BATAAN

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ABSTRACT

Purpose: The purpose of the study was to investigate the significant relationship of the delivery of prenatal health education and pregnancy outcomes in selected Aeta tribes in Bataan and to find out if there was a significant relationship between demographic profile of the Aetas and pregnancy outcomes.

Design and Method: A descriptive method was used involving a total of 50 Aeta women in Abucay, Orion and Limay in the Province of Bataan. Analysis of variance (ANOVA) and Chi-square of analysis were used to determine the relationship of the demographic profile and the pregnancy outcomes. For testing the significant relationship between extent of prenatal education and pregnancy outcomes, Pearson Product Moment of Correlation or Person's r was utilized.

Findings: The study found no significant relationship between the profile of the Aetas and pregnancy outcomes as presented in the results of analysis of variance and chi-square analysis. The delivery of prenatal education was related significantly to the pregnancy outcomes wherein the corresponding coefficient **of** determination .20 indicates that 20% of the differences in responses of the respondents in the overall pregnancy outcomes was attributed to by the medical and obstetric risk assessment while the other 80% is due to other factors.

Conclusion: Prenatal education must be an essential component in upholding the overall health status for pregnant women and for women across the lifespan. It is essential that the health worker and the local health units recognize prenatal education as a need and a priority area for women who are pregnant or who plan to become pregnant.

KEYWORDS: Prenatal Health Education, Maternal and Child, Pregnancy

INTRODUCTION

Every pregnant women faces the risk of sudden, unpredictable complications that could end in death or injury to herself or to her infant. Pregnancy related complications cannot be reliably predicted. But what impact can the procedure collectively called prenatal care (*http://en.wikipedia.org/wiki/Prenatal_care, 2010*) have to decrease child and maternal morbidity and mortality. World Health Organization estimated that more than 500,000 mothers die each year because of pregnancy and related complications. It was found that about 88% to 98% of all maternal deaths could be avoided by proper handling during pregnancy and labor (*UNICEF, 2008*). At the center of preventative medicine and preventative care is education. Prenatal health education is a specific form of preventative attention aimed at keeping both baby and mother healthy. It aims to ensure that every expectant and nursing mother maintain good health, learns the art of child care, has normal delivery and bears healthy children.

Education is an important and integral part of prenatal health and plays an important part in reducing prenatal health disparities among vulnerable

population (*http://www.idealsociety.org, 2010*). Despite improvements in and access to prenatal care, maternal and infant mortality disparities persist. The reasons for these disparities prove complex, with many concomitant factors such as poverty, poor access to medical care, environmental hazards, stress, and cultural beliefs and others. In an effort to improve health outcomes for mothers and their infants, healthcare providers need to design relevant prenatal health education program when caring for medically-indigent and illiterate pregnant women. A particularly vulnerable population that frequently receives care in the community is medically-indigent pregnant women like the Aetas.

In some areas in Bataan, there are minority groups who are said to be indigenous and these are the Aetas. Most of the Aetas are having difficulties in the delivery of their newborn because of lack of education in pertaining to the intellectual development because of racial discrimination that they had been encountered especially in health care services. Cultural and geographic isolation make pregnant Aetas even less knowledgeable about reproduction, pregnancy, and disease prevention. Additionally, some traditional practices are harmful or result in erroneous beliefs about health. These beliefs contribute to higher infant and child mortality rates, higher total fertility rates, lower birth weights, and lower contraceptive prevalence. Lack of resources and appropriate health education hinder effective delivery of healthcare to the Aetas *(Fabian 2003)*.

The aim of the study is to analyze the delivery of prenatal education and its outcome in the pregnancy of Aeta women. This kind of information is needed in order to improve the maternal health care system to meet better the health needs of ethnic minority parturients like the Aetas. Despite social or cultural background sufficient and good quality care prenatally, during birth and after it must be provided to enhance best possible and long lasting health and wellbeing of all mothers and their newborns.

METHODOLOGY

The study made use of the descriptive – survey method of research which was deemed appropriate in the acquisition of information needed to in-depthly study the phenomena in the delivery of the prenatal education and pregnancy of 50 Aeta women in Abucay, Orion and Limay, Bataan, Philippines in calendar year 2009. According to Santos (2000), the descriptive survey technique best describes the nature of situation that exists at the time of the study and explores the causes of these particular phenomena. Likewise, it is the best aid in testing hypotheses and answering questions on the current status of respondents.

Fraenkel and Wallen *(2003)* regarded this method as a form of research where there is an attempt to obtain data to determine specific characteristics of a group. This method was deemed appropriate in the acquisition of information needed to in-depthly study the phenomena in the delivery of the prenatal education and pregnancy of Aeta tribes in Abucay, Orion and Limay, Bataan. Likewise, this research provided a description of possible measures to be considered for Aetas in order to know in preparation of birth processes in the community.

Moreover, this research uses content analysis, which was also known as documentary analysis as a research technique in pursuing this study. Since this study dealt with documentary materials already existing and available, the use of documentary analysis was deemed necessary. As defined by Berelson *(1999)* content analysis is a research technique for the objective, systematic and quantitative description of the manifested content of communication.

The study utilized a locally made questionnaire as the research instrument to gather data and was developed based on the specific problems of the study and after a thorough review of related literature and studies. However, the questionnaires were validated through pretest which was done among Aetas in Limay. Self-administered questionnaire in Tagalog (a Filipino dialect) were used to elicit the information with regards to respondents' personal and socio-demographic characteristics, delivery of prenatal education and the pregnancy outcomes.

The data generated from the survey questionnaire was coded, tabulated, and analyzed using the statistical software called Statistical Package for the Social Sciences or SPSS *(SPSS, 2000)*. Specific problems were analyzed and interpreted using the following statistical tools: frequency, percentage, mean, Pearson's product moment of correlation, coefficient of determination, Analysis of Variance and Chi-square analysis of independence.

RESULTS

Demographic Profile of Aetas

A total of 50 Aeta women participated in the study. Data showed in Table 1 that 34% belong to the age bracket of 21–25 years, 76% or 38 of them are married, and had been pregnant and delivered a baby for more than two times. Majority spoke Tagalog and understood it very well.

Other Profile Variables: Cultural Beliefs and Access to Health Care Services

As observed in Table 2, the respondents exhibits negative and positive stance towards the statements on various health beliefs, religion beliefs and accessibility to healthcare services. It was interesting to note that the Aetas no longer adhere to old customs such as going to witch doctors when sick with mean of 4.92 and in believing that some illnesses were associated with the spirits entering the body with mean of 1.22. Respondents still believed that walking bare-footed increases the risk of developing varicose veins (with mean of 3.60). Also, some old traditions were still practiced by the Aeta women such as use medicinal plants, water therapy and home remedies when sick. The respondents were also educated to seek medical advice when necessary.

In terms of religious beliefs, it was noteworthy that the Aeta women believed on Supreme God and that they no longer believe on gods by names like diwa, diwata, tuhan and anito, no longer worship tress, rivers, mountains and animals as holy and no longer practiced religious tribal festivals.

Access to healthcare services, indicated that the health care facility was walking distant from the community settlement and it did not require them for transportation such as the Aetra tribe in Abucay and Limay. However, some were unable to have access to

Table 1. Demographic Profile of the Respondents

Demographic Profile	Frequency	Percent (%)
Age (years)		
16 – 20	6	12.0
21 – 25	17	34.0
26 – 30	14	28.0
31 – 35	10	20.0
36 – 40	3	6.0
Civil Status		
Single	12	24.0
Married	38	76.0
Separated	–	–
Gravidity/Parity		
Pregnant/Given Birth for the first time	12	24.0
2 – 3 times pregnant/given birth	28	56.0
4 – 5 times pregnant/given birth	7	14.0
6 and above pregnant/given birth	1	2.0
Dialect Barrier		
1. Dialect spoken:		
Tagalog	50	100.0
Sambal	–	–
Ilocano	–	–
2. Do you understand Tagalog very well?		
Yes	50	100.0
No	–	–
3. Do you understand English very well?		
Yes	17	34.0
No	33	66.0

healthcare facilities Like in Orion as manifested by the mean of which indicated neutral. The healthcare facility was manned by qualified health worker but these health care facilities were not equipped with supplies for prenatal care.

Delivery of Prenatal Education

These findings reflected very satisfactory results in the delivery of prenatal education on discussions about medical and obstetric risk assessment among pregnant Aetas. It was interesting to note that the respondents considered that conducting relevant physical examination accurately and thoroughly in time with presenting complaint, symptoms and history' and educating pregnant women about the dangers of pregnancy and management as excellently delivered or implemented as evidenced by the weighted mean of 4.58 and 4.76, respectively.

As implied by the mean of 4.76, the respondents find the provision of immunization services according to DOH policy including immunization information excellently implemented as far as they are concerned. The lowest mean rating of 3.02, though still satisfactory, with respect to immunization was in the explanation about what are the vaccines given and which type(s) of injections were done.

The lowest mean of 3.00, indicating satisfactory extent, is found in educating pregnant women in production, preservation and consumption of foods rich in micronutrients as revealed in the area of maternal nutrition.

Moreover, it can be gleaned from Table 3 that the respondents found that advising pregnant women on their regular check-ups was excellent.

Table 2. Other Profile Variables: Cultural Beliefs and Access to Health Care Services

Cultural Beliefs/Access to Healthcare Services	Mean	Descriptive Equivalent
Cultural Health Beliefs	**2.70**	**Neutral**
1. Believes that some illnesses are cause by spirits that enters the body	1.22	Very Negative
2. Believes that cutting nails at night create hang nails	2.98	Neutral
3. Believes that walking bare-footed increases the risk of developing varicose veins	3.60	Positive
4. Believes that sleeping with hair damp causes blindness	3.18	Neutral
5. Goes to manghihilot when sick.	2.54	Neutral
6. Uses medicinal plants when sick.	3.80	Positive
7. Uses water therapy when sick.	3.62	Positive
8. Goes to witch doctors when sick	1.08	Very Negative
9. Treats self with home remedy.	3.86	Positive
10. Seeks medical advice	4.92	Very Positive
Religious Influence	**1.80**	**Negative**
1. Believes on Supreme God.	5.00	Very Positive
2. Believes on gods by names like diwa, diwata, tuhan and anito	1.00	Very Negative
3. Worship tress, rivers, mountains and animals as holy	1.00	Very Negative
4. Believes on patron saints.	2.86	Neutral
5. Practice religious festivals particular to a certain tribe	1.00	Very Negative
Accessibility to Healthcare Service	**2.99**	**Neutral**
1. Location of the healthcare facility (e.g barangay health center)	3.60	Positive
1.1. walking distance from the community settlement	3.80	Positive
1.2. requires a transportation to go to the nearest center	1.80	Negative
1.3 within the community	2.80	Neutral
2. Accessible to all person in the community?	2.80	Neutral
3. Equipped with supplies for prenatal care?	1.88	Negative
4. Manned by qualified health worker	3.68	Positive

Legend: 4.50–5.00 Very Positive 3.50–4.49 Positive 2.5–3.49 Neutral
1.50–2.49 Negative 1.00–1.49 Very Negative

Table 3. Delivery of Prenatal Education

Assessment of Delivery of Prenatal Education	Mean	Descriptive Equivalent
Medical and Obstetric Risk Assessment	**3.93**	**VS**
1. Provides factual information in language that is easily understood, addressing the specific concerns or misconceptions the health provider has about pregnancy risk assessment	3.42	S
2. Performs thorough assessment appropriate for patient's reason for visit.	3.88	VS
3. Assesses health and well-being of mother and baby and provide support, advice, information and appropriate treatment in line with diagnosis.	4.10	VS
4. Conducts relevant physical examination accurately and thoroughly in time with presenting complaint, symptoms and history.	4.58	E
5. Performs all procedures completely & safely with regard to clients comfort & anxiety	3.42	S
6. Educates pregnant women about the dangers of pregnancy and management	4.76	E
7. Listens to clients and identify any concerns they may have	3.02	S
8. Provides educational materials to be taken home	4.24	VS
Immunization Status	**3.98**	**VS**
1. Provides immunization services according to DOH policy including immunization information	4.70	E
2. Explains what vaccines will be given & which type(s) of injection will be done	3.36	S
3. Accommodates language or literacy barriers and special needs of clients to help make them feel comfortable and informed about the procedure.	4.14	VS
4. Educates clients about the dangers of vaccine preventable diseases and the risks of not vaccinating during pregnancy.	3.42	S
5. Asks for and updates patient's record of immunizations and reminds them to bring it to each visit.	4.28	VS
Maternal Nutrition	**4.04**	**VS**
1. Assesses the nutritional status of client by ensuring adequate weight gain during pregnancy.	4.52	E
2. Provides nutrition counseling and support that may include food safety and hygiene, the importance of maintaining physical activity, the importance of fluids and hydration during lactation, and information on locally available nutrient-dense foods and food choices.	4.26	VS
3. Counsels on healthy eating habits and intake of essential nutrients to promote growth and development of the fetus.	4.26	VS
4. Discusses the dietary requirements of pregnant women and the essential components of nutrition care.	4.18	VS
5. Educates pregnant women in production, preservation and consumption of foods rich in micronutrients. Eg. fruits, colored vegetables.	3.00	S
Frequency of Prenatal Check-ups	**4.42**	**VS**
1. Discusses the importance of a regular prenatal check-up.	4.30	VS
2. Advises pregnant women when to be back for the next prenatal visit.	4.76	E
3. Follow-up clients who have not attended to the scheduled prenatal check-up.	3.96	VS
4. Records the number of prenatal visits the woman had and what intervention was given during her visit.	4.44	VS
5. Advises women to have check-ups on a regular basis.	4.64	E

Legend: 4.50-5.00 Excellent (E); 3.50-4.49 Very Satisfactory (VS); 2.50 -3.49 Satisfactory (S); 1.50-2.49 Unsatisfactory (U); 1.00-1.49 Very Unsatisfactory (VU)

Table 4. Pregnancy Outcomes

Pregnancy Outcomes	Mean	Descriptive Equivalent
Childbirth Preparations	**3.79**	**VS**
1. Identifies place of delivery and health worker such as midwife	4.34	VS
2. Prepares essential items for delivery (e.g. baby's layettes, feeding bottles) and saves money for emergency.	4.30	VS
3. Identifies signs of labor and knows when to contact health worker if labor is imminent.	3.44	S
4. Identifies danger signs of labor and knows how to manage during emergencies	3.32	S
5. Prepares self physically and emotionally for the work ahead of giving birth.	3.56	VS
Awareness of Physiologic Changes of Pregnancy	**3.32**	**S**
1. Identifies physiologic changes of pregnancy on each trimesters:	2.80	S
breast changes	2.92	S
skin changes (e.g. linea negra and striae gravidarum)	2.50	S
frequency of urination	2.36	U
nausea and vomiting(morning sickness)	3.40	S
2. Describes recommendations for the following during pregnancy:	2.69	S
rest and sleep	2.88	S
smoking and alcohol	2.96	S
dental care	2.46	U
work	2.46	U
3. Identifies warning signs for which the healthcare provider should be notified immediately:	3.69	VS
severe headache	3.26	S
fever	4.08	VS
edema (puffiness)	3.68	VS
vaginal bleeding	3.86	VS
sudden escape of fluid from the vagina.	3.56	VS
4. Identifies treatments to minor discomforts of pregnancy brought about by bodily changes.	3.72	VS
5. Asks pertinent questions to health provider about changes in the body and its causes.	3.74	VS
Child's Health Condition	**4.41**	**VS**
1. Performs daily cord care by applying cotton swab with alcohol until umbilical cord stump falls off. Examines the baby's umbilical cord stump if it is showing signs of infection (omphalitis), including having redness around the area, having a foul odor, and/or discharge.	4.28	VS
2. Brings the child to health center for immunization	4.80	E
3. Practices proper breastfeeding, making sure that baby is getting enough milk.	4.84	E
4. Identifies common diseases among babies with its signs and symptoms and manages simple conditions with home remedies.	3.46	S
5. Asks healthcare provider about infant care problems requiring immediate attention.	4.66	E
Parenting Care	**3.18**	**S**
1. Knows child's diet and feeding schedule, including what and when the infant is eating.	3.00	S
2. Knows child's sleep schedule, including naps and nighttime sleep.	2.94	S
3. Gives appropriate attention to child during feeding and bathing.	3.50	VS
4. Keeps the health and well being of babies by meeting the needs and supervising at all times even when sleeping.	3.44	S
5. Asks questions to health worker about parenting care on child's growth and development.	3.04	S

OVERALL = 3.68 – VS

Table 5. Demographic Profile of Aetas and Pregnancy Outcomes

Demographic Profile	Statistical Values/ Significance/ Remarks	Childbirth Preparations	Awareness of Physiologic Changes of Pregnancy	Child's Health Condition	Parenting Care	Overall Pregnancy Outcomes
A. ANALYSIS OF VARIANCE (ANOVA)						
Age	F-Value	2.338	1.526	1.676	.382	1.845
	Sig. (p>.05)	.108	.228	.198	.685	.169
	Remarks	Not significant	Not significant	Not significant	Not significant	Not significant
Civil Status	F-Value	.003	.002	.014	.249	.062
	Sig. (p>.05)	.957	.962	.905	.620	.804
	Remarks	Not significant	Not significant	Not significant	Not significant	Not significant
Gravidity	F-Value	1.296	.542	1.145	.868	.827
	Sig. (p>.05)	.283	.743	.351	.510	.537
	Remarks	Not significant	Not significant	Not significant	Not significant	Not significant
Parity	F-Value	.395	.406	1.345	.852	.354
	Sig. (p>.05)	.757	.750	.271	.473	.787
	Remarks	Not significant	Not significant	Not significant	Not significant	Not significant
Dialect	F-Value	1.233	.413	.004	.048	.007
	Sig. (p>.05)	.272	.524	.947	.828	.932
	Remarks	Not significant	Not significant	Not significant	Not significant	Not significant
B. CHI-SQUARE (X2) ANALYSIS OF NDEPENDENCE						
Age	X2-Value	6.065	20.025	5.799	11.466	6.027
	Sig. (p>.05)	.0640	.067	.215	.489	.644
	Remarks	Not significant	Not significant	Not significant	Not significant	Not significant
Civil Status	X2-Value	1.648	1.384	1.006	2.821	.256
	Sig. (p>.05)	.439	.709	.316	.420	.880
	Remarks	Not significant	Not significant	Not significant	Not significant	Not significant
Gravidity	X2-Value	2.534	2.567	4.972	5.056	3.287
	Sig. (p>.05)	.639	.861	.083	.537	.511
	Remarks	Not significant	Not significant	Not significant	Not significant	Not significant
Parity	X2-Value	2.855	2.135	4.686	8.016	2.079
	Sig. (p>.05)	.582	.907	.096	.237	.721
	Remarks	Not significant	Not significant	Not significant	Not significant	Not significant
Dialect	X2-Value	.485	2.705	.255	4.414	3.568
	Sig. (p>.05)	.785	.439	.613	.220	.168
	Remarks	Not significant	Not significant	Not significant	Not significant	Not significant

Table 6. Delivery of Prenatal Education and Pregnancy Outcomes

Delivery of Prenatal Education	Value/ Remarks	Childbirth Preparations		Awareness of Physiologic Changes of Pregnancy		Child's Health Condition		Parenting Care		Overall Pregnancy Outcomes	
		r	r2	R	r2	R	r2	r	r2	r	r2
Medical and Obstetric Risk Assessment	Values	.46	.22	.33	.11	.16	.03	.41	.17	.45	.20
	Descriptive Equivalent	Moderately Small Correlation		Moderately Small Correlation		Very Low Correlation		Moderately Small Correlation		Moderately Small Correlation	
	Remarks	Significant		Significant		Not Significant		Significant		Significant	
Immunization Status	Values	.30	.09	.09	.008	.38	.14	.17	.03	.26	.07
	Descriptive Equivalent	Moderately Small Correlation		Very Low Correlation		Moderately Small Correlation		Very Small Correlation		Moderately Small Correlation	
	Remarks	Significant		Not Significant		Significant		Not Significant		Significant	
Maternal Nutrition	Values	.50	.25	.20	.04	.16	.03	.41	.17	.42	.18
	Descriptive Equivalent	High Correlation		Very Low Correlation		Very Low Correlation		Moderately Small Correlation		Moderately Small Correlation	
	Remarks	Significant		Not Significant		Not Significant		Significant		Significant	
Frequency of Prenatal Check-ups	Values	.41	.17	.17	.03	.02	.0004	.27	.07	.30	.09
	Descriptive Equivalent	Moderately Small Correlation		Very Low Correlation		Very Low Correlation		Moderately Small Correlation		Moderately Small Correlation	
	Remarks	Significant		Not Significant		Not Significant		Significant		Significant	

Pregnancy Outcomes

In terms of child preparations, the respondents regarded it as very satisfactory. The highest mean of 4.34, which was very satisfactory, was in identifying place of delivery and health worker such as midwife. In contrast, the lowest mean of 3.33 was in identifying danger signs of labor and in knowing how to manage during emergencies.

The Aetas' knowledge and awareness of physiological changes of pregnancy, considered satisfactory with mean of 3.32. However, Aetas were not aware with frequency of urination as a physiologic sign in pregnancy. They were also unconscious of dental care and work during pregnancy.

In identifying common diseases among babies with its signs and symptoms and manages simple conditions with home remedies, Aetas showed satisfactory result with a mean of 3.46.

The lowest mean with respect to parenting care was in knowing child's sleep schedule, including naps and nighttime sleep with mean of 2.94 implying satisfactory rating.

Overall, data showed a very satisfactory results with the pregnancy outcome with mean of 3.68 as depicted on Table 4.

Demographic Profile of Aetas and Pregnancy Outcomes

The study showed that there was no relationship between the demographic profile of the Aetas and pregnancy outcome. ANOVA revealed no significant differences in the age brackets of the respondents with respect to childbirth preparation, awareness of physiological changes of pregnancy, child's health condition, and parenting care. This implied that there are no significant relation between age and these variables. This result was confirmed by the Chi-square analysis output also found in Table 5.

Delivery of Prenatal Education and Pregnancy Outcomes

Table 6 displays the relationship between delivery of prenatal education and pregnancy outcomes using Pearson r correlation (r) and Coefficient of Determination (r2).

The four (4) aspects of the delivery of prenatal education measures moderate correlation with the overall pregnancy outcomes. The highest correlation coefficient was 0.45 which was in medical

and obstetric risk assessment. Its corresponding coefficient of determination .20 indicated that 20% of the differences in responses of the respondents in the overall pregnancy outcomes was attributed to by the medical and obstetric risk assessment while the other 80% was due to other factors. However, the lowest correlation coefficient of .26 was observed in immunization with a coefficient of determination of .07 implying only 7% effect on the variance of the overall pregnancy outcomes.

DISCUSSION

Based on the socio-demographic characteristics of the respondents, it can be safely stated that they were considered to be of child-bearing age *(Piliteri, 2006)* which, therefore, implied that there was a high probability that these indigenous women would definitely be taking into consideration to have an access to prenatal health education as well as to utilize other maternity care and health services as it is made available to them to promote safe pregnancy and childbirth.

The demographic profile of the respondents reflects that there is currently a low incidence rate of miscarriage among the respondents and majority of them are considered multigravida with two or more actual births *(Lundy & Janes, 2007)*. These finding, however, calls for more dynamic prenatal health education and maternal services on the part of the health workers responsible to this native group of women. The fact that there is a low incidence of miscarriage does not seal the loop hole of other foreseeable dangers of pregnancy and childbirth among the Aeta women.

The Aetas were neutral in terms of health beliefs as they still tend to stick to traditional health practices, taking into consideration that health workers are doing efforts to bring to these medically indigent people the basic health services to prevent disparities to health. Moreover, the Aetas' beliefs and practices of traditional health was attributed to their rich culture as an ethnic group with distinct cultural identification inherent of them. In fact, Aeta women are known around the country as purveyors of herbal medicines Ophelia, 1974). The Aetas in Bangkal (a Aetas settlement area) like many other indigenous peoples had a strong connection with the forest. The Aetas believed that the forest provided them with shelter and food and the foremost source of all herbal medicine plants which they use to heal common ailments like malaria, headache, and diarrhea and stomach ache *(dela Rosa, 1998)*.

Aetas had a negative attitude towards the customary religious beliefs because of their affiliation in various religious sects. This was evidenced by the Catholic churches that were built within the community like in Abucay and in Limay, Bataan. Besides foreign missionaries, lay ministers, and other religious groups who had visited them, introduced a new faith contrary to what they inherited from their ancestors and little by little accepted this new devotion and belief on God *(Ramos, 1979)*.

The findings implied that some of the respondents were unable to access the healthcare facilities point out to the Aeta settlers in the upland area of Bayan-bayanan in Orion,Bataan, wherein the health center was located in another barangay, few kilometers from the settlement area. As compared to the Aetas in Abucay and Limay, access to healthcare services was available within reach because of its location in the settlement area. Though accessible to the community, these health centers, were deficient to appropriate supplies needed for prenatal checkups. Hence ,the health workers assigned in the health station was dependent only on the supply and resources given by the local government unit (LGU) and Public Health Office (PHO).

In attempting to provide prenatal education among pregnant Aetas about medical and obstetric assessment, health workers were knowledgeable on this aspect of informing these vulnerable women early identification of dangers and complications of pregnancy and childbirth. According to the Aetas, their idea of what kind of vaccine and how the vaccine must be given during pregnancy is inadequate and explanation was limited during the procedure, since the midwife or the trained barangay health worker, are the one in-charge of providing these services in the community.

Prenatal education in terms of maternal nutrition had a very satisfactory results and these finding was a reflection that in caring for pregnant women the importance of maternal nutrition is emphasized for the promotion of a healthy pregnant mother and a well baby. This was an indication that a healthy pregnancy starts in proper nutrition to bring out a

positive outcome on birth of a baby. Aeta women were instructed about the frequency of prenatal check-ups as a major factor in ensuring that a pregnant mother's health and her baby is being monitored to identifyhigh-risk situation.

The study showed a very satisfactory result with the pregnancy outcome of the Aetas. The Aeta women were able to carry out some aspects in preparation for birth and its complication and empowerment of women by expanding educational opportunities. Their awareness of physiologic changes, knowledge on child's health condition and parenting were important factors in enhancing positive birth outcome. A very satisfactory results on the pregnancy outcome of Aetas demonstrated an improved maternal health in reducing maternal risks, an increased ability of the mother to cope with the stress and pain of labour, an increased parental knowledge, and an increased ability of the parents to care for their infants.

The study showed that there was no relationship between the demographic profile of the Aetas and pregnancy outcome. Findings implied that prenatal health provided among these pregnant women regardless of their age, marital status, dialect and others, if conscientiously accepted will enable them to achieve a healthy pregnancy, optimal birth outcome and positive adaptation to parenting. On the other hand, pregnant woman's ignorance of prenatal care, coupled with poor health services, exacerbates maternal deaths. Thus, a pregnant woman, whether young or old, single or married, a primigravida or a multipara was not an assurance that pregnancy would bring out a positive birth outcome relative to childbirth preparedness, identification of physiologic changes, and parenting care. Hence, providing informations through prenatal education given to women promote wellness and the prevention of illness (*www.birthinternational.com, 2010*). It also facilitates informed decision making and maintain or enhance their own and their baby's physical and emotional health throughout pregnancy. The demographic profile of the Aetas had no significant relationship on pregnancy outcome, for the reason that pregnant women are unique with each other on the manner how they see the birth experience, and what interventions do they apply to meet the needs of being pregnant.

The delivery of prenatal education about medical and obstetric risk assessment, maternal nutrition, immunization and prenatal check-ups had said to have an impact on pregnancy outcome. Discussions on this area of prenatal education were said to be of importance to educate women about pregnancy ,nutrition and health care, hence the goal of prenatal education is a positive birth outcome. Aeta women belong to indigenous groups of people who remain on the margins of the society, poorer and less educated. With improved information on pregnant Aeta's health, action can be taken to ensure access to culturally appropriate health care, as well as to safe motherhood and health-related education (*http://www.sonoma county.org, 2010*).

CONCLUSION

Since the findings of the study showed that prenatal education had a significant relationship to pregnancy outcomes, prenatal education must be an essential component in upholding the overall health status for pregnant women and for women across the lifespan. It is essential that the health worker and the local health units recognize prenatal education as a need and a priority area for women who are pregnant or who plan to become pregnant. Health care providers must intensify their programs to increase public awareness of the importance of preconception health behaviors and preconception care services by using information and tools appropriate across various ages; literacy, including health literacy; and cultural/linguistic contexts. Health care workers should be updated with the most recent practice of Maternal and Child Health Care delivery system that is more effective, efficient and that is diverse and can be use up to the extent of its scope.

The Aetas, like any other ethnic groups, have diverse beliefs and attitudes about health and medicines, which may affect adherence to prenatal care. Cultural and religious beliefs at some points with their affects the perception of some Aeta women in response prenatal health status. Healthcare workers should give respect with those things which are customary to them. It is therefore very helpful to the healthcare provider to train people from the tribal group that will promote and disseminate information based on a standard practice. On this manner, any misconceptions or violations on their culture will be clearly discussed and can find ways to correct such mistaken beliefs.

REFERENCES

Arenque, Ophelia A. 1974 . "A Study of the Economic, Social, Religious and Political Life of the Aetas at Ragay, Camarines Sur". (Unpublished Master's Thesis, University of Nueva Caceres, Bicol)

Bayliss, Clara K. 2008. Philippine Folk Tales. Manila: Bibliolife.

Belerson, JF., 1999. Measurements and Evaluation, (National Bookstore)

Cesar B. Bermundo and Alex B. Bermundo. 2005. Simplified Statistics for Beginners Workbook. Philippine Copyright.

Dela Rosa, Richard T. "An Assessment of Pregnancy-Related Health Education Needs Among Primigravida in Selected Barangays in Las Pinas City" (Unpublished Master's Thesis, University of Perpetual Help, Las Pinas City,1998)

Effective Prenatal Education. http://www.birthinternational.com /workshop/ effective.html. Retrieved: 15 January 2010

Fabian K., Pinatubo Aeta, 2003. http://literal no 4.tripod.com/pinatuboaeta_frame.html.

Jack R. Fraenkel and Norman E. Wallen. How To Design and Evaluate Research in Education. Fifth Edition. McGraw-Hill Education (Asia). 2003

Grace D. Santos, 2000. Applied Basic Statistic. Phoenix Publishing House, Inc:, p. 379

Grady MA and Bloom KC. 2004. Pregnancy Outcomes of Adolescents Enrolled in a Centering Pregnancy Program. Journal of Midwifery Womens Health. Elsevier Inc. MO.

Lundy, Karen S. and Sharyn Janes. 2007. Community Health Nursing: Caring for the Public's Health. NY: Rittenhouse Book Distributors.

Pilitteri, Adelle. 2006. Maternal and Child Health Nursing. Philadelphia: Lippincott Williams and Wilkins

Prenatal Care. 2009. http://en.wikipedia.org/wiki/Prenatal_care. Retrieved: 18 December.

Prenatal Education. http://www.idealsociety.org/html/Philosophy_Education/PrenatalEducation/Prenatal_Education.html. Retrieved: 10 January 2010.

Prenatal and Maternity Care. http://www.sonoma county.org/health/ ph/mcah/ prenatal. .html. Retrieved: 05 Feburuary 2010.

Ramos, Gabriel." Aetas of Tanay." (Unpublished Master'Thesis, Rizal College, Tanay Rizal, 1976)

SPSS. Statistical Analysis Using SPSS 10.0. SPSS Inc. Training Department. January 12, 2000

Taylor Carol, Carol Lillis and Priscilla Le Mone. 2005. Fundamentals of Nursing 5th ed. Philadelphia: Lippincott Williams and wilkins.

UNICEF, 2008. Maternal Health, www.unicef.org/mdg/maternal.html.