JATI, Volume 22, December 2017, 170-186

TEENAGE FERTILITY AND RISK OF PREGNANCY: SOCIOCULTURAL CORRELATES IN THE PHILIPPINES

Paolo Miguel M. VICERRA
College of Population Studies
Chulalongkorn University
(paolo.vicerra@phikappaphi.up.edu.ph)

Abstract

There has been a dramatic increase in teenage pregnancy in the country making it the highest even among ASEAN countries from 1999 to the present. The issue of teenage pregnancy may be viewed not solely on health outcomes but the overarching issue of positive maternal and child well-being from a population and development perspective. What is lacking in the literature is an analysis of female youth who had ever been pregnant decoupled from the concept of it being unintended. Also lacking especially in the Philippines context is focusing on the women who are at risk of this event. Determining associated characteristics for this event is an apt pre-emptive profile that may help policies. For this study, the 2008 and 2013 National Demographic and Health Survey is utilised. Several factors are considered as independent variables that may be described as a demographic and behavioral factor, and this set of determinants are tested for both outcomes to show if there are similarities. Results show that being in a union, low education and socioeconomic status; living with parents, access to tri-media, and contraceptive practice are correlated with the outcomes of having been pregnant and the risk of being pregnant. Age at first sexual engagement and residing in the rural area are correlated only to have been pregnant. This may help toward creating programmes that can target particular comportment that will abate the prevalence of such event and subsequently improve maternally and child health.

Keywords: youth fertility, risk of pregnancy, youth sexual behavior

Introduction

Teenage pregnancy has been one of the issues addressed with regard to policies recently. The majority defines it as a public health issue, but there are also those who disagree. For the former, there are studies that suggest infants borne of younger mothers have increased the likelihood of lower birth weight, increased risk of hospital admission during early childhood, and even increased infant mortality altogether (Chen, Wen, Fleming, Demissie, Rhoads, & Walker, 2007). There are also reverberating social consequences for the infant as belonging to less supportive health environment and, if the infant were to be female, she would have higher chances of being a teenage parent as well (Mustafa & Odimegwu, 2008). For the mother's health itself, early pregnancy also poses pressures including mental health issues (Viner, Ozer, Denny, Marmot, Resnick, Fatusi, & Currie, 2012)

There are studies also that do not indicate teenage pregnancy as public health issue per se. Although these studies offer disagreement, they specify that such outcomes are related to other issues more than simply attributing it to age (Gueorguieva, Carter, Ariet, Roth, Mahan, & Resnick, 2001)There are studies suggesting that factors are confounding the results from age attribution to poor health outcomes; one of which being the mother's socioeconomic status (Pamuk, Fuchs, & Lutz, 2011).

Albeit there are disagreements on defining the phenomenon, one commonality is there are outcomes of health whether attributed to age or otherwise. A disregarded aspect is there are social consequences to the young mother herself which would eventually affect the subsequent status of personal and family well-being she and her infant may encounter. There are reports that specify the lesser likelihood of a teenage mother being able to further her education, therefore, having lower qualifications and the evential risk of living in poverty increases (Local Government Association, 2013).

The issue may be viewed not solely on health outcomes but the overarching issue of positive maternal and child well-being from a population and development perspective. For the current study, teenage pregnancy in the Philippines is addressed. The following section provides a brief background on the issue.

Background

Biologically, the age of the mother is suggested by some to be important for health status improvement because of the physical state their body may be in at

the time of birth. An example suggests whereby this premise is physiological well-being involves the status of reproductive system which can affect the infant for both young and older mothers (Mustafa & Odimegwu, 2008). The early comparative study had previously shown that infants in Indonesia borne of adolescent women were at more risk of mortality than those borne by women aged 20 through 29 years (Greenspan, 1993). Also part of the study is Thailand and the Philippines, although it is not as pronounced as that of Indonesia's case. This observation persists in studies in developing countries (Kembo & Van Ginneken, 2009).

Socio-cultural aspects may also play a role in this issue. Women in the Philippines is said to have a high level of literacy and is an important part of the labour economy whether locally or overseas among other matters of a gender egalitarian society. But one aspect that has to be focused on is maternal health particularly on reproductive health. This is a factor of healthcare that requires a response to prevent risks of maternal mortality borne of complications including those related to induced abortions (Cabigon, 2008). Various conservative actors are involved in conflicting views on reproductive health policies, and this includes the Catholic Church.

What this presentation leads to culminates with what was reported that adolescent fertility rate in the Philippines is 53 births per thousand women aged 15 to 19 years (United Nations Population Fund, United Nations Education and Scientific Organization, & World Health Organization, 2015). This rate determines a large increase of 70 per cent in the period of 1999 to 2009 resulting in it being one of the highest among ASEAN countries. Due to this, there had also been indications that abortion incidences also increased in almost the same period whereby there is a prevalence among younger population (Cabigon, 2008)

This can largely be prevented by improving reproductive health service provision especially to address unintended pregnancies (Santhya, Ram, Acharya, Jejeebhoy, Ram, & Singh, 2010). Although another issue with this is that there are complications toward the concept of unintentional or unwanted pregnancies (Kavanaugh & Schwarz, 2009). One reason being the woman may intend to become pregnant but do not want it yet. Another reason may be the concept itself is vague for the woman respondent. Most surveys, as is the data set used in the current study, are retrospective which may bear the importance that having child at the moment of enumeration may have changed the mind of the mother to 'wanting' the child (Trussell, Vaughan, & Stanford, 1999)

Some studies on the issue is on the factors toward having had unwanted pregnancies but, what is lacking in the literature especially in the Philippines

context is the deviation from this concept, therefore, the aim of this study is on focusing on the young women who are at risk of pregnancy; and also those who have been pregnant. Determining associated characteristics of these events are an apt anticipatory outline that may help policies supporting young women's health and well-being; or social development.

Methodology

For this study, the 2008 and 2013 NDHS is utilised. Demographic and Health Surveys are nationally representative, population-based household surveys which provide comparable data between countries on health indicators. It covers information on fertility levels and preference, awareness, and use of family planning, breastfeeding practices, marriage, nutrition status of women and children, maternal and child health, childhood mortality, knowledge and attitudes regarding HIV/AIDS, and violence against women.

Firstly, these study analyses are the characteristics of young women aged 15 to 24 years who are at risk of having unintended pregnancies. This risk is defined as women who may need family planning services and have been engaging in sexual activity in the past quarter prior the survey, but either does not wish to have an infant or undecided when she, or they as a couple (Sedgh, Bankole, Oye-Adeniran, Adewole, Singh, & Hussain, 2006). Also, infecund women, or those who have been engaged in sexual activity in the past five years and not using contraceptive methods but have not yet borne a child, are excluded.

Several factors are considered as independent variables that may be described as demographic and behavioural factors. This includes the level of education in years, wealth tertile to stand for socioeconomic status, residence, marital status, the living arrangement described in terms of living with at least one of their respective parent or grandparent; parity, and religion. The behavioural factors include the age at first sex, health risk behaviour as smoking practice, number of sexual partners, and age difference with partners in general, contraception practice, level of knowledge with regard to reproductive health as measured by knowledge of contraceptive methods and sexually transmitted infections including HIV-AIDS; and access and exposure to various media. The age of sexual partner is to be noted because of the discontinuance in questioning in 2013.

The other outcome tested is on teenage women who had been pregnant. Working on the same age group to capture the adolescent years, this sample consists of women who had intercourse before and subsequently categorised

between those who have not ever been pregnant and those who have experienced it.

Result and discussion

Presented in Table 1 are the selected characteristics of women aged 15 to 20 years at their risk of being pregnant. It is observed that certain factors have remained to be associated with the use of family planning and the opposite non-use and lack of intention to utilise such services as age, parity, education, and access to general media. The other factors are observed to have a varying association which may be related to changing cultural underpinnings.

If categorised by grouped categories, age at first sex is not statistically different where those who had a sexual encounter at 15 years or earlier is at 65 per cent and those at 16 years and later is 58 per cent. Both age group categories increased in proportion to being at risk of pregnancy for 2013. Marital status is statistically different between categories ($p<0.05$) in both years, but for socioeconomic status of their households, it is limited to the sample for 2008 ($p<0.05$). Living with a parent is significantly higher (65%) for those who are at risk than living away from them (48%). This gap is narrower in 2013 as being about 66 per cent and 62 per cent respectively.

Those at risk of pregnancy are at most in primary years of education is higher compared with those at least secondary level for both years. The other statistically different factors are exposure to tri-media and those who are using contraceptive methods, whether modern or traditional.

Based on regression model (Table 2), several factors are observed to be statistically significant. For 2008, when age at first sex is tested through the parabolic equation, the squared value is significant which translates to the interpretation that at about 15 years old, the odds of being at risk of pregnancy increases the odds by 1.04. Being in a union currently or in the past also increases the odds by 1.6 in 2008 and 2.5 in 2013.

Table 1: Percentage Distribution of Women Aged 15 to 20 Years by Pregnancy History by Selected Characteristics, 2008 and 2013

	2008			2013		
	At risk of pregnancy (n=356)	Total (N=598)	χ^2	At risk of pregnancy (n=426)	Total (N=664)	χ^2
Age at first sex						
15 years and below	65.4	114	*0.18*	72.2	128	*0.05*
16 and below	58.1	484		62.3	536	
Marital status						
Never in a union	42.5	110	*0.00*	57.5	138	*0.08*
Ever in union	63.3	488		65.9	526	
Socioeconomic status						
Low	67.9	256	*0.00*	63.8	267	*0.45*
Middle	54.7	185		61.9	243	
High	51.3	157		68.5	154	
Living arrangement						
Living with at least a parent	65.3	395	*0.00*	65.6	405	*0.36*
Living away from parents	48.1	203		62	259	
Residence						
Rural	62.3	326	*0.16*	60.6	334	*0.07*
Urban	56.1	272		67.8	330	
Education level						
Primary or lower	66.2	134	*0.08*	71.8	131	*0.04*
Secondary or higher	57.5	464		62.3	533	
Number of sexual partners						
One partner	59.9	531	*0.59*	63.7	577	*0.53*
More than one	56.2	67		67.3	87	
Age of sexual partner						
Younger	47.6	10	*0.63*			
Same	55.4	51				
Older	60.1	537				

Smoking practice						
No	60	560	*0.38*	63.7	624	*0.35*
Yes	51.3	38		71.6	40	
Access to tri-media						
Insufficient	62	235	*0.34*	61.9	321	*0.25*
Sufficient	57.8	363		66.3	343	
Exposure to tri-media						
Insufficient	64.6	334	*0.01*	64.3	396	*0.93*
Sufficient	53	264		64	268	
Usage of contraceptives						
Not using any method	49.6	440	*0*	53.5	432	*0*
Uses a method	87	158		84	232	

	2008			**2013**		
	At risk of pregnancy (n=356)	Total (N=598)	χ^2	At risk of pregnancy (n=426)	Total (N=664)	χ^2
Knowledge of RH						
Insufficient knowledge	59	55	*0.94*	70.6	95	*0.16*
Sufficient	59.5	543		63.1	569	
Religion						
Catholic	59.5	467	*0.96*	64.4	523	*0.84*
Other	59.3	131		63.4	141	

Source: NDHS 2008 and 2013

Socioeconomic status and living arrangement show opposite direction of odds in 2008. Being in a middle socioeconomic status household lowers the odds of being at risk of pregnancy at 0.60 while those in high SES decreases odds by 0.49. Living away from parents also decreases odds by 0.60. Having sufficient exposure to reproductive health messages through tri-media decreases the odds by 0.63. Having used a contraceptive method increases the risk of pregnancy by 7.54.

In 2013, the residence was observed to be significant where being the urban area increases the risk of pregnancy by odds of 1.3. The utility of contraceptive methods also positively affects the risk by 5.5 which is not as high as in 2008.

Table 2: Odds Ratios of Predictors of Women Being at Risk of Pregnancy During Teenage Years, 2008 and 2013

	2008	2013
Age at first sex	0.32	0.91
Age at first sex (squared)	1.04**	1.00
Marital status		
(Ref) Never in a union		
Ever in union	1.62*	2.53***

	2008	2013
Socioeconomic status		
(Ref) Low		
Middle	0.60**	
High	0.49**	
Living arrangement		
(Ref) Living with at least a parent		
Living away from parents	0.60**	0.92
Residence		
(Ref) Rural		
Urban		1.32*
Education level		
(Ref) Primary		
Secondary	1.03	1.00
Exposure to tri-media		
(Ref) Insufficient		
Sufficient	0.63**	
Usage of contraceptives		
(Ref) Not using any method		
Uses a method	7.54***	5.46***

*Significance level at *p<0.10 **p<0.05 ***p<0.001*

Table 3: Percentage Distribution of Women Aged 15 to 20 Years by Pregnancy History by Selected Characteristics, 2008 and 2013

	2008			2013		
	Ever pregnant women (n=371)	Total women (N=602)	χ^2	Ever pregnant women (n=457)	Total women (N=760)	χ^2
Age at first sex						
15 years and below	80.6	117	*0*	72.4	156	*0*
16 and above	56.9	485		57	604	
Marital status						
Never in a union	25.7	104	*0*	27.3	203	*0*
Ever in union	69.4	498		72.1	557	
Socioeconomic status						
Low	71.8	257		65.5	293	
Middle	56.5	187	*0*	61	280	*0.01*
High	50.5	158		50.5	187	
Living arrangement						
Living with at least a parent	67.5	398	*0*	61	442	*0.59*
Living away from parents	49.4	204		58.9	318	
Residence						
Rural	66.4	327	*0.01*	62.4	377	*0.23*
Urban	55.5	275		57.9	383	
Education level						
Primary or lower	74.7	134	*0*	74.2	143	*0*
Secondary or higher	57.6	468		56.9	617	
	2008			**2013**		
	Ever pregnant women (n=371)	Total women (N=602)	χ^2	Ever pregnant women (n=457)	Total women (N=760)	χ^2
Number of sexual partner						
One partner	63.1	534	*0.01*	60.7	661	*0.95*
More than one	44.5	68		60.3	99	
Age of sexual partner						
Younger	65.1	10	*0.11*			

Same	47.8	55				
Older	62.8	537				
Smoking practice						
No	62.8	564	*0.03*	59.9	712	*0.6*
Yes	41.5	38		64.1	48	
Access to tri-media						
Insufficient	68.2	235	*0.01*	63.1	367	*0.13*
Sufficient	57.1	367		57.4	393	
Exposure to tri-media						
Insufficient	64.6	337	*0.1*	61.8	449	*0.28*
Sufficient	57.4	265		57.7	311	
Usage of contraceptives						
Not using any method	54	442	*0*	50.8	523	*0*
Uses a method	82.1	160		80.8	237	

	2008			2013		
	Ever pregnant women (n=371)	Total women (N=602)	χ^2	Ever pregnant women (n=457)	Total women (N=760)	χ^2
Knowledge on RH						
Insufficient knowledge	72.3	56	*0.07*	75.6	109	*0*
Sufficient	60.3	546		57.6	651	
Religion						
Catholic	59.7	471	*0.11*	59.7	606	*0.64*
Other	67.7	131		61.8	154	

Source: NDHS 2008 and 2013

In 2008, women in the sample who have had sex at age 15 years or earlier were significantly higher (80.6%) than those in later ages (56.95%) as shown in Table 3. The similar pattern is observed in 2013 although women who are ever pregnant by 15 years and below is lower at 72 per cent.

Being in a union with a partner is also significantly different between those who have not for both years. This is also observed for SES. There are also more who have been pregnant in the rural areas, in the primary level of education at most, and have only one partner. The other characteristics and behavioural factors that are shown to have significant associations with pregnancy history are being non-smokers, have insufficient access and exposure

to RH messages to tri-media, and have ever been users of any contraceptive methods.

As presented in Table 4, the 2008 column presents the parabolic test in age at first sex is significant. Those who have sex before 14 years old have increased odds of having experienced pregnancy by 4.07. After such age, odds decrease by 0.95. Having been in a union with a partner whether married or consensual union increases the odds by 6.50. Using any contraceptive method also affects the odds of having been pregnant by 5.51.

Age at first sex is also significant in 2013 although it begets no specific age when it creates a parabolic curve. Marital status is still significant with odds of increasing by 6.2. The odds of-of having experienced pregnancy with regard to the utility of contraceptive methods are lower in 2013 than in 2008 with the value of 4.0.

Table 4: Odds Ratios of Determinants of Women Having Experienced Pregnancy During Teenage Years, 2008 and 2013

	2008	2013
Age at first sex	4.07*	9.49**
Age at first sex (squared)	0.95**	0.93**
Marital status		
(Ref)Never in a union		
Ever in union	6.50***	6.24***
Socioeconomic status		
(Ref)Low		
Middle	0.87	0.86
High	0.85	0.81
Living arrangement		
(Ref)Living with at least a parent		
Living away from parents	0.86	
Residence		
(Ref)Rural		
Urban	0.83	
Education level		
(Ref) Primary		
Secondary	1.01	0.84
Smoking practice		
(Ref)No		
Yes	0.64	1.2

	2008	2013
Number of sexual partners		
(Ref)One partner		
More than one	0.68	
Access to tri-media		
(Ref)Insufficient		
Sufficient	0.72	
Exposure to tri-media		
(Ref)Insufficient		
Sufficient	1.11	
Usage of contraceptives		
(Ref)Not using any method		
Uses a method	5.51***	4.026***
Knowledge of RH		
(Ref) Insufficient knowledge		
Sufficient	0.89	0.65

*Significance level at *p<0.10 **p<0.05 ***p<0.001*

Discussion

It has been presented that there are factors that are similarly correlated between the outcomes of the risk of pregnancy at their teenage years and the experience of pregnancy as well. The factors that are observed to correlate solely with having been pregnant are living in rural residence, having multiple partners, smoking, and having sufficient knowledge of reproductive health matters. Rural residence in the Philippines had been linked with lower access to healthcare services including procurement of contraceptives (Marston & Cleland, 2003). This may have an impact, especially on young people. The other factors have also been observed in other societies. A study of women in South Africa and found that an outcome of reproductive health risk is associated with behaviours like substance abuse before pregnancy (Peltzer & Mlambo, 2013). They also observed that engaging in sexual activities with multiple partners also has the said effect. One of the curious observations is that having sufficient knowledge of reproductive health matters which is on the nature of contraceptives and even proper information on HIV/AIDS. But based on other studies, there are ways to which the youth, whether male or female, exercise the use of such knowledge (Liwag, de la Cruz, & Macapagal, 1999; Ogena, 1999; Viner et al., 2012). Their behaviour does not match what they know at times.

The gap between knowledge and practice is related to the correlation of the outcomes in the study with the use of contraception and having sufficient exposure to population messages in the media. As a caveat for both factors, there are points to be taken first. The use of contraception as informed by the government utilises both modern and traditional methods. And also, the type of messages is unclear in content with regard to the lack of comprehensive approach from the government. This is reflected in the assessment of sexuality education throughout Asia where the Philippines is one of the countries evaluated (Clarke, 2010). In the development plans covering 2008 until the time of the assessment, there is a stark absence of a plan for sexuality and reproductive health and rights education. Both of these facets of traditional methods of contraception and the deficiency in reproductive health education may contribute to the observation in the current study whereby the intuition that is using both faculties of contraceptive knowledge and use are mislaid.

As to the other factors as mentioned above, they are similar between outcomes which can be seen as a retrospective view with regard to female youth who have been pregnant and as probabilistic view as to the risk of being pregnant. Firstly, the case for having been engaged in union early in life increases the likelihood of both outcomes. This is similar to the observation in five Indian states (Santhya et al., 2010). They viewed the topic in the social development of young women and observed that those who are in such unions early in life had increased the likelihood of experiencing physical and sexual violence and experiencing miscarriages or stillbirth. What may be having its effect on the context of the Philippines is the increasing prevalence of consensual unions in both rural and urban areas across age groups (Kabamalan, 2004; Vicerra, 2012). This is viewed by those who practice it as a family unit already, but they do not have enough resources to hold a ceremony, whether in a religious setting or civil court, which is necessary for the country to be deemed as a formal marriage.

Another factor observed to be correlated with both and shown to affect both risks is socioeconomic status, SES, based on household wealth. It is observed here that there is a continuing decrease in odds of being at risk of pregnancy for each increase in the category of SES as in the Philippines (Marston & Cleland, 2003). This presents the gradient SES bears in terms of healthcare development of individuals. And this gradient is as impactful as another factor observed in the current study which is education level. These disparities have also been detected in other societies (Santhya et al., 2010).

In this study, it is observed that youth living with parents, or even one parent, have more likelihood of being at risk of pregnancy or had already

experienced it. This may be deemed counterintuitive because some literature observes that having both parents' supervising their children's development decreases these outcomes(Guilamo-Ramos, Jaccard, Dittus, & Bouris, 2006). But other analyses also suggest that there are contexts to which whether parents are present may not have the similar effect mentioned. There are various permutations by which families affect their teenage children based on their cultural underpinnings as well as educational attainment and social standing.

A notable aspect of this occurrence whereby children living with their parents together with the third generation family member including a partner or not reflects a social support system found in the Philippines. The financial support system in the country continues downward from even the oldest member of the household to the youngest (Abrigo, Racelis, & Salas, 2012). As it is, having extended families within households is common to a degree, there may be an effect of this lifestyle where young people may have a level of dependency and security when at home.

Another sociocultural phenomenon relatable to the living arrangement and SES is through parental supervision. A study was conducted interviews with youth including women and their parents who belong to the income groups of lower threshold (Ochoa, 2014). Although the issue of early pregnancy did not surface in their discussion, the parental view of the extent of supervision is demonstrated. Restrictions on behavior for young adults, whether male or female, by adults, have been shown to be a source of rebellious attitude. But what is observed in the Philippine context is that young males are restricted, and in the perspective of the parent 'protected, from vulnerability to violence which is associated with selecting peers well. But for young females, the restriction is based on them going out much and being viewed by people as having 'loose' morals (Liwag et al., 1999; Ochoa, 2014). Based on the parent's gender values, females are vulnerable to physical harm and sexual susceptibility.

What these factors reflect is the prevailing views of the capacity toward childbearing or the prospect of it. Gendered norms are perpetuated among young women by being constrained solely to the value of childbearing and child-rearing. Although they are gaining sufficient knowledge about reproductive health, there is a lack of assurance that it is precise. It is to be elucidated that pregnancy in and of itself is not being adjudicated as morally annulled, but the issue here is the lack of access or prospect of young women to personal growth and social development.

Conclusion

This paper offers an initial view of the youth who had been pregnant and are at risk of pregnancies. As presented here, many supporting evidence utilised here is not exclusively in the Philippine context. Some factors used in this study are lacking in the literature on the local level. Therefore, more studies would be beneficial. Furthermore, this approach of utilising different measures does not diminish the need for analysing unintended pregnancy as a theme. What is argued here is the strength that introducing diversity to youth reproductive health studies may convey. The similarities strengthen the need for certain programmes, and those that differ may be given further studies. These may help toward formulating policies that can target particular comportment that will abate the prevalence of such a risky event and ultimately improve maternal and child health.

References

Abrigo, M. R. M., Racelis, R. H., & Salas, J. M. I. S. (2012, October). Philippines 2007 NTA : Consumption, Income, and Intergenerational Reallocation of Resources - Revised Estimates. Makati City: Philippine Institute for Development Studies.

Cabigon, J. (2008). Abortion and contraception: Their role in explaining Philippine fertility change. In J. Capuno & A. Orbeta (Eds.), *Human capital and development in the Philippines: A festchrift in honor of Alejandro N. Herrin* (pp. 145–183). Makati City: Philippine Institute for Development Studies.

Chen, X., Wen, S. W., Fleming, N., Demissie, K., Rhoads, G. G., & Walker, M. (2007). Teenage pregnancy and adverse birth outcomes: A large population-based retrospective cohort study. *International Journal of Epidemiology*, *36*(2), 368–373. Retrieved from https://doi.org/10.1093/ije/dyl284

Clarke, D. (2010). *Sexuality education in Asia: Are we delivering? An assessment from a rights-based perspective*. Bangkok: Plan.

Greenspan, A. (1993). *Changes in fertility patterns can improve child survival in Southeast Asia*. Honolulu: East-West Center.

Gueorguieva, R., Carter, R., Ariet, M., Roth, J., Mahan, C., & Resnick, M. (2001). Effect of teenage pregnancy on educational disabilities in kindergarten. *American Journal of Epidemiology*, *154*, 212–220.

Guilamo-Ramos, V., Jaccard, J., Dittus, P., & Bouris, A. (2006). Parental expertise, trustworthiness, and accessibility: Parent-adolescent communication and adolescent risk behavior. *Journal of Marriage and Family*, *68*(5), 1229–1246.

Kabamalan, M. (2004). A new path to marriage: The significance of increasing cohabitation in the Philippines. *Philippine Population Review*, *3*(1), 111–129.

Kavanaugh, M. L., & Schwarz, E. B. (2009). Prospective assessment of pregnancy intentions using a single-versus a multi-item measure. *Perspective on Sexual and Reproductive Health*, *41*(4), 238–243. Retrieved from https://doi.org/10.1363/4123809

Kembo, J., & Van Ginneken, J. (2009). Determinants of infant and child mortality in Zimbabwe: Results of multivariate hazard analysis. *Demographic Research*, *21*(13), 367–384.

Liwag, M., de la Cruz, A., & Macapagal, M. (1999). *1999 Philippines: How to Raise Our Daughters and Sons: Child-Rearing and Gender Specialization in the Philippines*. Manila: Ateneo Wellness Center.

Local Government Association. (2013). *Tackling teenage pregnancy Local government' s new public health role*. London: Local Government Association.

Marston, C., & Cleland, J. (2003). Do unintended pregnancies carried to term lead to adverse outcomes for mother and child? Assessment in five developing countries. *Population Studies*, *57*(1), 77–93.

Mustafa, H., & Odimegwu, C. (2008). Socioeconomic Determinants of Infant Mortality in Kenya: Analysis of Kenya DHS 2003. *Journal of Humanities and Social Sciences*, *2*(2), 1–16.

Ochoa, D. (2014). Parental socialization of moral behaviors in the context of poverty. *Philippine Journal of Psychology*, *47*(1), 41–72.

Ogena, N. B. (1999). How are the Filipino youth changing? The shifting lifestyles of our nation's young, the 1970s to 1990s. *Philippine Social Sciences Review*, *56*(1–4), 83–106.

Pamuk, E. R., Fuchs, R., & Lutz, W. (2011). Comparing Relative Effects of Education and Economic Resources on Infant Mortality in Developing Countries. *Source: Population and Development Review*, *37*(4), 637–664.

Peltzer, K., & Mlambo, G. (2013). Sexual HIV risk behaviour and associated factors among pregnant women in Mpumalanga, South Africa. *BMC Pregnancy and Childbirth*, *13*. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3599185/pdf/1471-2393-13-57

Santhya, K., Ram, U., Acharya, R., Jejeebhoy, S., Ram, F., & Singh, A. (2010). Associations between early marriage and young women's marital and

reproductive health outcomes: Evidence from India. *International Perspective on Sexual and Reproductive Health*, *36*(3), 132–139.

Sedgh, G., Bankole, A., Oye-Adeniran, B., Adewole, I., Singh, S., & Hussain, R. (2006). Unwanted pregnancy and associated factors among Nigerian women. *International Family Planning Perspectives*, *32*(4), 175–184.

Trussell, J., Vaughan, B., & Stanford, J. (1999). Are all contraceptive failures unintended pregnancies? Evidence from the 1995 National Survey of Family Growth. *Family Planning Perspective*, *31*(5), 246–260.

United Nations Population Fund, United Nations Education and Scientific Organization, & World Health Organization. (2015). *The sexual and reproductive health of young people in Asia and the Pacific*. Melbourne: Burnet Institute.

Vicerra, P. M. M. (2012). Relative empowerment: An exploration of the exercise of autonomy of Filipino women in unions. *JATI*, *17*, 79–93.

Viner, R., Ozer, E., Denny, S., Marmot, M., Resnick, M., Fatusi, A., & Currie, C. (2012). Adolescence and the social determinants of health. *Lancet*, *379*, 1641–1652.