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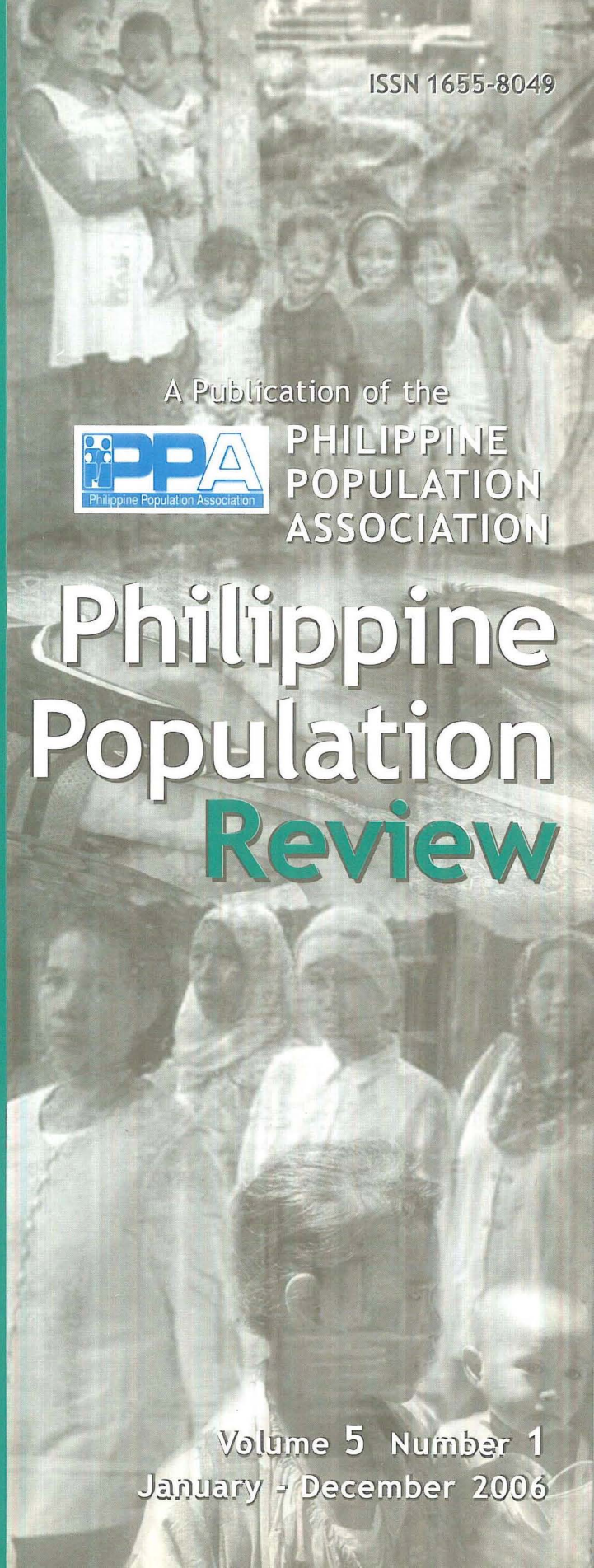
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## Editor's Notes

In 2005, the Philippine population was estimated by the National Statistics Coordination Board at 85.26 million, up from the 76.9 million counted in the 2000 census, an increase of more than 8.3 million. This means an annual average exponential growth rate of 2.05 percent for the period 2000-2005.

Even as the population continues to grow at a rapid pace, the total fertility rate (TRF) decline is exceedingly slow. The 2003 National Demographic and Health Survey (NDHS) calculated the TFR at 3.5, down from 4.1 in 1993 and 3.7 in 1998. A friend pointed out that the TFR issue can be looked at like the proverbial glass: either it is half-full or it is half-empty, that is, the decline is dramatic, or it is sluggish.. There has been a decline, no doubt, but it is no consolation to realize that among Southeast Asian countries, only Laos and Cambodia have higher TFR than ours.

At the same time, a one-child gap continues to exist between wanted (2.5) and actual (3.5) fertility. This gap is reinforced by the finding of the 2005 Family Planning Survey that one-fifth of all currently married women have an unmet need for family planning: 11 percent for spacing and nine percent for limiting.

In other words, the Philippines has a population problem. Millions of Filipino women want family planning to control their fertility and are unable to do so for a variety of reasons. In the face of this reality, the government of President Gloria Macapagal-Arroyo declared in 2006 that the Responsible Parenting Movement, which promotes only natural family planning (NFP), is the answer to the problem. Let foreign donors and local governments worry about providing the contraceptive requirements of Filipino women. This administration will use national government resources for the promotion of NFP and nothing but NFP.

The 2006 edition of the *Philippine Population Review* weighs in on the population debate.

The paper of Dr. Magdalena C. Cabaraban draws up a profile of the Muslims in the Autonomous Region in Muslim Mindanao in matters of marriage, family and contraception. Conducted after the National Fatwa on Family Planning and Reproductive Health (which allows the use of contraceptives for child spacing, and even sterilization to save the life of mother and child) was developed but before its launching and dissemination, the study reveals the conservative thinking of many of the respondents that family planning is considered haram (forbidden), although the younger respondents are more open to the practice of family planning.

Over in Cebu City, the men have taken to vasectomy. In her study of male involvement in family planning, specifically their acceptance of no-scalpel vasectomy, Dr. Elmira Judy T. Aguilar argues how conceptions of masculinity have shaped the contraceptive choice of the men. A responsible husband and father is a good provider who takes care of his family's

future. For this particular, primarily economic reason, a man will consider vasectomy if all the myths, fears and misconceptions are explained away by a credible, influential other, preferably a health provider.

Nationwide, Filipino women are undergoing induced abortion. The paper of Dr. Josefina Cabigon et al touches on a very hot button in this predominantly Christian country. Using data from the 2004 National Survey on Women, the authors validate earlier findings: majority of women who undergo induced abortion are married, more of them are non-poor, many of them have unintended pregnancies which they want to abort. The study discusses five correlates of induced abortion and concludes that in order to reduce abortion, it is necessary to reduce unintended pregnancies. Hence, the importance of family planning and other reproductive health services.

Two commentaries, delivered at the University of the Philippine (U.P.) Alumni Association Council Meeting in June 2006, present the population-environment relationships. The Abrajano paper opens dramatically with a quotation from the Assyrian Tablet (2800 B.C.) which lamented that the end of the world was fast approaching, then makes the point that doomsayers date back from olden times. However, though Dr. Abrajano points out that even if the Earth is not yet on the brink of extinction, it does not mean that governments and societies must conduct their "business as usual". He argues that we owe it to the future generations to leave behind a sustainable future. A companion piece, the paper Dr. Merle C. Tan is a case study of the role of the U.P. and its alumni in promoting sustainable development.

The Manalastas piece comprises the Research Notes for this issue. Making use of data from the male sub-sample of the 2003 NDHS, the paper reveals that condom use by men who have sex with men is very low, despite prevalent beliefs that condoms could protect against sexually transmitted diseases. The author argues for further sexuality research directions, including improved assessment of sexual behaviors and more in-depth investigation of social dynamics and contexts of sex between Filipino men.

Finally, the *Philippine Population Review* would like to thank the United States Agency for International Development for allowing the publication of the papers of Drs. Cabaraban and Aguilar, whose research projects on the Muslims and on no-scalpel vasectomy respectively were supported by the USAID project, The Social Acceptance Project – Family Planning, which was implemented by the Academy for Educational Development in 2002-2006.

The Editor



# An In-depth Inquiry into Family Planning Values, Beliefs and Practices of Muslims in Southern Philippines

Magdalena C. Cabaraban\*

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## Abstract

**T**his formative research aimed to probe into the knowledge, attitudes, and beliefs regarding family planning and related issues of Muslim Filipinos in the Autonomous Region in Muslim Mindanao (ARMM). The study sites comprised six communities purposively chosen from each of the five provinces and one city in the ARMM. A total of 39 focus group discussions involving 278 participants and 159 in-depth interviews were conducted. The findings highlight the value of children, the practice of arranged marriages, and the problems of premarital and unintended pregnancies. The desired number of children varies: the young married respondents express preference for a smaller number; the low-educated and traditional ones want many children. A large number of respondents are aware of family planning methods. Their knowledge, however, is deficient and limited. There is widespread awareness of the traditional method. Misperceptions are plenty and fears are mostly on side effects. Methods currently used include both the modern and the traditional. Health providers at the local health centers and hospitals are considered the best sources of information regarding health and family planning. Radio and television, adjudged as influential and credible, are poorly considered because these channels are considered for entertainment only. Ethnicity does not serve as a guide in making important decisions. Decisions on whether or not to adopt family planning and decision on the number of children are guided by being a Muslim, not by ethnic affiliation. The study

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recommends the application of appropriate advocacy approaches, development of culture and gender-sensitive IEC materials, prioritization of special groups, and development intervention for the empowerment of women. Alternative channels of information dissemination or piloting of modalities in information-education need to be developed, pre-tested and evaluated in terms of their effectiveness to change behavior.

**Keywords:** marriage, family, children, family planning, modern and traditional methods of contraception,

## Introduction

### Rationale and Research Objectives

The Autonomous Region in Muslim Mindanao (ARMM), composed of five provinces and one city, has been the site of protracted conflict situations in past decades, seriously affecting the social and economic fabric of life in that part of the country. The 2000 census pegged its total population at 2,412,159 with an annual growth rate of 3.9 percent. Islam is the religion of 90 percent of the population. The major ethnic groups residing in the region include the Maranaos, Tausog, Sama, Maguindanao, and Yakan.

Various studies show indicators of unfavorable social condition of the region such as high poverty incidence, high infant and maternal mortality, and low life expectancy. Poverty incidence in 2000 was estimated at 63 percent (World Bank Group, 2003). Infant mortality is highest among all of the regions in Mindanao. The 1998 National Demographic and Health Survey (NDHS) reported infant deaths to be 55 per 1000 live births; the National Statistical Coordination Board (2000) placed infant mortality rate at 63. Both estimates are way above the national infant mortality rate of 49.

An equally important indicator of ARMM's disadvantaged position is the maternal mortality ratio, reported by the World Bank for 1995 at 320 for every 100,000 live births, way above the national estimate of 180 for every 100,000 live births.

The disadvantaged condition of men and women in the ARMM areas is also evident in their life expectancy. At birth, an average Muslim man is expected to live 56 years while an average Filipino male is expected to live for 10 more years. The life expectancy for ARMM women is 59 compared with the national average of 72 years (World Bank Group, 2003).

The high population growth rate, the low contraceptive prevalence and the high number of children per woman exacerbate the deprivation as these impinge upon the limited resources of the region. Findings from both national and local studies provide a picture as well as an explanation.

The 1998 NDHS reported that the ARMM had the lowest percentage of currently married women using any contraceptive method (PopCom, 2001). Moreover, the unmet need of these married women is the highest among the different regions; 35 percent of women

claimed having unmet need for family planning compared with only 20.5 for the entire country (2002 Family Planning Survey).

The 1998 NDHS results likewise showed the level of knowledge of any contraceptive method as well as knowledge of modern methods. In all regions of Mindanao, except ARMM, the percentage of currently married women in the ages of 15 to 49 years knowing any modern contraceptive is high (90 to 100 percent) compared with 62 percent of ARMM women of the same age group.

The deficient knowledge of Muslim women is consistent with their low exposure to family planning messages. The percentage of women who received messages about family planning on radio and television is only 32 and 24, respectively. These figures are the lowest in all six regions of Mindanao.

Given these demographic and social realities, the United States Agency for International Development, through The Social Acceptance Project-Family planning (TSAP-FP), which was implemented by the Academy for Educational Development, commissioned the Research Institute for Mindanao Culture to conduct a formative research with the following objectives:

- to probe into the knowledge, attitudes and beliefs about family planning and related issues among Muslim respondents;
- to better understand the constraints and barriers to acceptance and use of family planning methods in terms of myths, misperceptions, taboos, fears, cultural and religious norms;
- to understand perceptions on modern versus traditional method users; and
- to find out the channels of information and key influences that impact on family planning decisions among the target Muslim audiences.

## **The Research Methodology**

### **The Research Design**

This descriptive study mainly utilized qualitative approaches, particularly focus group discussion (FGD) and in-depth interview. A total of 39 FGD sessions, with 278 participants, were conducted, while 177 respondents, including 18 religious leaders, were interviewed. Data-gathering was done in February and March of 2004.

### **The Study Sites**

The sites were chosen purposively. One municipality from each of the five provinces (Basilan, Lanao del Sur, Maguindanao, Sulu, and Tawi-Tawi) and one city (Marawi) of ARMM were selected. The criteria for the selection of the site consisted of the following: the place must not be a recipient of family planning or reproductive health programs of TSAP-FP, must be predominantly populated by a specific Muslim ethnic group, must be fairly accessible,

and must have a relatively stable peace and order condition. In addition, the pledge of cooperation and assurance of safe conduct from the local government units had to be obtained prior to entry in the community.

#### *The Respondents and Participants*

To capture variations in behavior, attitudes, practices and perceptions, the participants in the FGD were made homogenous in terms of sex, marital status, age, and education. The homogenization by the four variables resulted to 16 permutations spread out in six study sites (Table 1). Focused on FGD participants, the distribution below showed uneven allocation by study sites but the over-all average number is seven participants.

TABLE 1. Study Sites, Number of FDGs and FGD Participants

Study Sites	No. of Total FDGs Participants	No. of FGD	Average No. of Participants per FGD
Basilan	6	44	7.3
Lanao de Sur	9	80	8.9
Maguindanao	7	45	6.4
Marawi City	5	37	7.4
Sulu	7	41	5.8
Tawi-Tawi	5	31	6.2
<b>TOTAL</b>	<b>39</b>	<b>278</b>	<b>7.1</b>

#### The Research Instruments

There were three qualitative instruments developed, namely: FGD guide, in-depth interview guide for *imam* (Muslim religious leader) and guide questions for various groups of men and women.

The instruments were pretested and flaws in logical sequence of topics were corrected in order to address issues of clarity and cultural sensitivity. The principle of confidentiality, informed consent, respect for privacy and voluntary participation was also strictly observed. These considerations were instilled in every member of the research team (interviewers, data processors and investigators) from the conceptualization to the analysis stage, with greater emphasis during the data collection phase.

### *Mode of Analysis*

This investigation is basically a qualitative study. Thus, analysis of data will contain minimum presentation of quantitative measurement and standardization.

The challenge in qualitative analysis is to make sense of the massive amount of data, reduce the volume of information, and identify significant patterns of recurrent behavior (Sarantakos, 1994; Patton, 1990).

The qualitative nature of the study and the intended use of information derived from it necessitate a kind of reporting in which the user needs rather than scholarly norm is important. In this context, relevance, clarity and applicability become important considerations in the analysis.

## **Muslim Values and Norms on Family Life**

### **The Family**

All respondents – regardless of sex, education, and ethnicity – emphasize the importance of the family. The family includes the parents, children, wife/husband, siblings and other relatives. The inclusion of relatives beyond the nuclear family can be explained by the strong clan orientation of the Muslim. The family is the source of joy/happiness, love, comfort, economic support, and stability. The family is an anchor from which they derive strength and meaning in life. Its importance is more on the affective dimension.

Parents are viewed as important – they are life-givers, they are the support system, persons to be relied when things go awry and willing to make sacrifices. They are the nurturers, caregivers and matchmakers.

### **Arranged Marriages**

The practice of parents to find a partner for their child is still enforced in a few Muslim and indigenous households. Parents determine whom their children marry; the arrangement is made between parents even before the onset of menarche.

The prevailing sentiment gleaned from the answers of Muslim youth across various ethnic groups indicates their resentment and objection. Apparently, they cannot muster enough courage to go against their parent's decision. A few contemplate running away if made to marry a person not of his/her choice.

The majority of the youth from various ethnic groups negate that arranged marriage is a predominant practice in the culture. Among the Yakan, Tausog and Maguindanao youth, overwhelming statements of negation were given, albeit there were some who gave recognition

to cases of arranged marriages. The Lanao Del Sur youth shared their experiences and their reactions. A better-educated young girl related that her parents pledged her for marriage at the age of five. She said, "I don't like him, he is a womanizer. I hope the marriage will not push through."

The practice is reported to be common in Lanao Del Sur. A number of better-educated male respondents professed to be unhappy with their parent's decision, but would still abide so as not to embarrass their parents. A similar pattern of reactions was observed in other places.

Young men and women expressed vehement opposition to the practice of arranged marriage. One better-educated Maguindanao lad felt that there was no sense in arranged marriage because both the man and the woman would be unhappy. The Tawi-Tawi youth gave the impression that somehow parents today are giving more freedom to their children to choose whom to marry.

A young married woman whose husband was chosen by her father and his relative related a pathetic story. She demonstrated her objection by pleading support from her mother and by running away several times but to no avail. She eventually succumbed to the pressure.

Tausog respondents from Tawi-Tawi and Jolo also had experiences of being arranged to marry a person chosen by his/her parents. The main argument of Tausog female respondents against arranged marriage is the possibility that their parent's choice could be a physically handicapped or a very old man and this would not matter to their parents as long as the man can afford to pay an exorbitant bride price.

## **Pregnancy and Children**

### *Premarital Pregnancy*

A series of projective questions was asked among unmarried participants of FGDs and respondents of in-depth interview which revolve around premarital pregnancy. Designed to elicit feelings, circumstances, anxieties, and to find out whom they can approach for advice and who would approve or disapprove, the questions yielded conflicting thoughts and perceptions.

Overall, pregnancy out of wedlock is perceived to be a problem. It is an act that will be considered a social disgrace. The pregnancy of a single woman will be the talk of the town; she will be the butt of jokes and fodder of gossip. These perceptions cut across different ethnic groups. Women who get pregnant out of wedlock are perceived to be easy-to-get, hardheaded, and stubborn. They are considered as prostitutes or commercial sex workers.

The Maranao young women in Marawi gave additional information; women may take medicine to prevent pregnancy, implying use of contraception, or may take medicine to terminate pregnancy, indicating the use of an abortifacient. A young man from Sulu strongly affirmed he would never allow his girlfriend to get pregnant for fear of being whipped 100 lashes.

The females in Tawi-Tawi gave varied reactions. One would rather die, another affirmed that life would be very difficult if one were to get pregnant while unmarried, and few would not contemplate such situation having no job and still dependent on their parents. A number expressed concern for the child out of wedlock. He/she will be called “bastard,” discriminated, and not accepted even by playmates.

### *The Meaning of Children*

Regardless of ethnicity, children are valued highly. The importance given to children does not differ despite the variations in people’s marital status, education and age. Children are regarded as a blessing or gift from Allah; an insurance in their old age – “to help me in my old age,” “to take care of me in my old age”; an inspiration and source of happiness; a support and defender against bullying and clan conflict; a means to perpetuate bloodline/family name; and as social, emotional, political, and economic assets.

The emotional value of children is intertwined with the other aspects, notably social and economic. It is in the emotional value wherein the love-given, love-received relationship is manifested and enhanced. “*Ang anak ay bunga ng pagmamabalan, karugtong ng bubay, inspirasyon sa bubay.*” (“A child is the fruit of love, a part of your life and your life’s inspiration.”) The reciprocity can be gleaned from expressions of expectations from children to care for their parents and the affirmation that children provide joy, happiness and meaning in life. “*Kung may anak ka, may kasama ka kahit matanda ka na. Sandigan sa pagtanda.*” (“If you have children you have someone who will take care of you when you get old, an assurance of support in your old age.”)

The economic and political value of children is evident in statements like “give support/money to parents,” “defender in case of clan conflict,” “campaigner if one decides to run for public office,” etc. While the above descriptions cut across the different ethnic groups, a few insights are worth noting. The Tausog from both Jolo and Tawi-Tawi study sites gave meaning to children as having the obligation to avenge their death in case they would be killed. In this context, the preference for a son is highlighted.

To think of children as an obligation and a sacrifice runs counter to the usual enumerated benefits which suggest that children are more than just a burden but rather that they are an asset. A better-educated Tausog male expounded the meaning of making sacrifices, which for him is edifying and elevating to the higher plane of humanity.

Tausog females have another quaint view of children; they give relief to boredom and tiredness but especially they are an assurance of their parents' having pallbearers during their burial. A religious male Maranao from Lanao del Sur reported that children are a source of spiritual merit and having more children means that there would be more people to preach Islam.

#### *Desired and Actual Number of Children*

Across different ethnic groups of Muslims, the pattern for the ideal and the desired number of children is similar except in age differential. The younger married respondents, whether Yakan, Maguindanao, Maranao, or Tausog, generally expressed preference for a smaller number while the older ones opted for a bigger number of children.

The male Maranaos from Marawi, regardless of education, think the ideal number is five to seven children. They are aware of the benefit of a longer interval or space in childbearing. A three-year gap is considered an ideal interval; their female counterpart expressed the desired number to be between two to four years.

This pattern on the desired number of children holds true among the Tausog from Tawi-Tawi. The actual number ranges from five to six children, and usually a couple would desire for a son if their children are all girls. The younger married respondents want lesser number of offspring, about two to five; the older ones desire five or more.

Older men and women from Jolo admitted that to have more than what was desired is a problem. This is compounded by pressure and encouragement from significant people around them.

#### *Approval and Disapproval on the Number of Children to Have*

Who applaud when a couple has a greater number of children? Who frowns when they have less? The data suggest that approval of having more or having fewer children depends on the approving individuals' preference for small or large family size.

Significant people who are either close or are helping the couple could give approval or disapproval. Generally, the approval comes from the husband, sibling, parents, parent-in-law, relatives, and friends whose mindsets are shaped by the advantage of having many children. Women themselves profess approval if the husband can afford or if he has a good job and earns well. A Maranao husband related the pressure from a relative: "My relatives are angry because I have only one child. They want me to marry again."

Couples, who are economically dependent on their parents, those with no job or no employment prospect, those with large number of children already and are living below the poverty level, are inclined to approve of less number of children. Husbands themselves strongly want to have two to three offsprings.

### *Attitude towards Unintended Pregnancy*

A probe question was asked of both married and unmarried respondents regarding the effect of getting pregnant to acquiring valued things and resetting priorities. Nearly all were in accord that untimely pregnancy would impact on acquisition of things that matter most, notably in the sphere of finances. Disruption in one's plans, studies, or work was seen as a consequence. Newly married women from Jolo, Marawi, and Maguindanao expressed the likelihood of either stopping their current schooling or not being able to finish their degree if they get pregnant, more so, if these women already have small children to take care of.

Unintended pregnancy could be a problem for both married and unmarried males and females. Plans would not be realized if the wife gets pregnant. Married males were emphatic to point out that the unintended pregnancy could be a roadblock to the intention to travel, plans to build the house would be deferred, launching a business venture could not immediately be implemented, and financial assistance for parents could not be realized. Money saved would have to go to paying hospital bills and buying the baby's needs.

The unintended pregnancy, according to men and women from various ethnic groups, is most likely to produce bad effects, such as: incurring loans (with exorbitant interest), neglect in the care of small children, disruption of schooling or inability to finish a college degree, and spousal quarrels.

A large number of respondents affirmed having experienced getting pregnant when they did not want to. The pregnancy usually is closely spaced, at times as close as three months interval after the birth of the last child. The unintended pregnancy is invariably carried to full term; the women were in unison in declaring the difficulties encountered.

## **Family Planning: Perceptions, Knowledge, and Practices**

### **The Concept of Family Planning**

Examining the data from the six study sites reveals a polarized understanding of the concept of family planning. There are respondents who have heard about it but have no knowledge and those who profess to have heard and know a little about it. The latter are predominant in number over the former.

In the context of the above delineation, respondents, whether male or female, educated or not, young or mature, have invariably heard the term "family planning." The common understanding of family planning is "control" in reproduction, in having children, stop having children or stop pregnancy.

The general pattern reveals that men are more deficient in the understanding of family planning than women; the latter affirmed hearing and knowing about family planning even at a very early age. The better-educated males are more receptive than the less-educated.



The men and women in Tawi-Tawi have an open-mind about family planning while the understanding of family planning of Maranaos from Lanao del Sur and Marawi City is fraught with misconception that instills fear in knowing more. This, in a sense, closes the door to entertain the desire to know more.

The term “control” has varying interpretations. For Tausog married women, it means to limit the number when the couple has already many children. It also means avoiding too-close interval pregnancies.

The Maranaos stress that family planning is “*haram*” in Islam. The better-educated women, though, understand family planning in the context of the family, that it means having a good life for the family. However, family planning is identified as women’s responsibility.

## Awareness and Knowledge of Family Planning

### *Extent of Awareness and Knowledge*

Men and women from various ethnic groups can be grouped into two categories when it comes to awareness of family planning: those who profess not to have heard about any family planning methods or those who have very limited knowledge and those who profess to know but knowledge is deficient, content-wise.

The first category is composed of a very few respondents spread across the different ethnic groups. Respondents with knowledge of at least one method were subjected to a series of questions. In general, awareness of different methods of family planning is limited. The pattern of awareness indicates that better-educated males are more aware than their low-educated counterpart. Females, whether better educated or not, are more knowledgeable than the males.

### *Awareness of the Traditional Methods*

Differential in the level of awareness by family planning methods is evident. Widespread awareness of the traditional over the modern methods holds true to all Muslim ethnic groups.

In general, among the Muslim males, the better-educated know of both the traditional and the modern methods. The low-educated tend to be knowledgeable of the traditional methods only.

The traditional methods known cover a wide range of indigenous practices. Use of roots, leaves, and barks is predominantly mentioned, prepared as decoction and taken three times a day. An alternative way will be to take three scoops of decoction before and after sex. Tausog women mentioned using leaves from “pitawali” plant and bark of coconut as both contraceptive and abortifacient.

The usefulness of “*panday*” (traditional birth attendant) in assisting childbirth extends to prevention and management of pregnancy. The usual services for massage could be facilitative

for those who would like to be pregnant and those who want to avoid as well as terminate pregnancy.

Other forms of indigenous practices to prevent unintended pregnancy include drinking several tablets, referred to as "*ubat*" which can be bought over the counter (e.g., paracetamol) in most pharmacies. This should be mixed with softdrinks to prevent pregnancy. This mixture is supposed to be taken before meals and while the fetus is one-month old in the womb.

Tausog women would practice jumping up and down after sex in the belief that the semen will be expelled. A Tausog husband would ask the wife to squat after having sex so she will not get pregnant. Moreover, douching is believed to have similar effects.

Withdrawal is the popular one and almost all respondents know about this method. The same is true with abstinence, "*hindi magriping*" (refrain from sleeping with the wife).

The Yakan respondents are not articulate in giving information about their awareness of family planning methods. However, rhythm is popular among couples. Rhythm was mentioned by respondents as their preferred method yet admission of their lack of knowledge on how it works was also expressed.

#### *Awareness of Modern Methods*

The modern methods which study respondents are popularly knowledgeable about include pills, condom, injectables, IUD, and ligation. Very few mentioned vasectomy.

Level of awareness of modern methods differs among different ethnic groups. Respondents in Lanao del Sur know of modern methods, nevertheless the knowledge is limited and deficient. The Maguindanaoans are more knowledgeable; moreover, they also know in a nutshell how each method works. For instance, they are aware of the possibility of pregnancy if one misses to take the pill for one day.

Knowledge of condom use is superficial simply because the knowledge is derived from what they heard and learned, usually from a friend and the media. They know it should be placed in the penis. Those who had experienced using condom expressed dissatisfaction

Awareness of the injectable as a method of contraception comes either from wives who are currently using or from relatives. The popular known brand is Depo-Provera. The knowledge, however, is deficient and one gross misunderstanding is that something has to be removed from the woman's body.

The pill is known to prevent pregnancy, according to male respondents. It is effective and safe, albeit a number hold grave misconceptions of this method. They think that taking the pills will damage the fetus inside the womb. The fetus will be imbibing the pills as these are being dissolved inside the mother's body.

Ligation is known to be a method to prevent pregnancy which involves operation, that ligation is a permanent method and has an effect on sexual urges.

The IUD is unpopular, very few respondents profess to hear or know the method. They know "*Halagay sa loob ng matres*" ("It is placed inside the uterus.") and it prevents pregnancy.

Of all the modern methods, vasectomy is the least known. The very scant awareness is true to all ethnic groups. One single male from Maguindanao simply quipped, "*Takot ako doon.*" ("I'm afraid of that.")

#### *Advantages and Disadvantages of Methods*

The citation of advantages and disadvantages manifests a pattern that is similar across different ethnic groups. Respondents, irrespective of their marital status, age, and education, gave common responses. Thus, the description of each method holds true for all ethnic groups of varied socio-demographic characteristics.

In general, citing of disadvantages is more pronounced than the advantages. The former is peppered with unfounded hearsays, misconceptions, and deficient knowledge that leave many gaps in the understanding of each method.

The pill is known to a majority of respondents, regardless of education. It is recognized to be a female-controlled method that should be taken everyday. Respondents believe it to be effective, easy to use, and safe albeit the woman will gain weight. Moreover, couples can have children if they decide to terminate use. A young Tausog wife jokingly added as advantage the fact that she and her husband can have sex anytime they want.

A long litany of disadvantages, however, was articulated. Side effects predominate among the complaints. Allergy, stomach pains, fainting spells, high blood pressure, dry skin, nausea, headache and loss of weight are attributed consequences of pill use. Another constellation of disadvantages is related to perceived irregularities in the woman's reproductive system, which include: thinning of the uterine wall, mass growth in the uterus and breast, profuse menstruation, and difficult urination. Much more alarming is a cited disadvantage of having an abnormal baby as an alleged result of pill use. The danger of getting pregnant when a woman misses taking the pill in a day is considered a disadvantage too.

Women view weight gain due to pill use as both an advantage and a disadvantage. It is an advantage if a woman desires to gain additional weight. It is a disadvantage if a woman or her significant other considers weight gain as undesirable.

The use of injectables presents advantages that could be gleaned from answers like "no problem," "it is effective," "no side effects," and "responsible for good appetite." The disadvantages, however, far outweigh the advantages. It is considered "*haram*" (forbidden) in Islam because it involves injecting chemicals into the body of a person. Moreover, the perceived side effects include: headache, dry skin, painful sex, less menstrual flow, nausea, and a likelihood of developing a tumor.

Ligation is advantageous because “it frees the woman from taking tablets, and is effective,” according to male respondents. However, the dangers cited include increase in blood pressure, possibility of tumor growth, and a belief that a woman must not lift heavy objects.

The most common advantage of condom as cited is that it provides protection from HIV/AIDS and from sexually transmitted diseases. However, disadvantages are numerous, to wit: it renders the sex act unsatisfying and less pleasurable, it is considered an irritant, the fear that condom will rupture or will be left inside the woman’s womb and the feeling that the penis is being wrapped and constricted. Moreover, use of condom is believed to be appropriate only for paid sex

A rather common circumstance was related by a young man from Tawi-Tawi:

*“Wala pa akong asawa noon. Katama ko ang barkada, nag-iinuman kami. Pagkatapos ng inuman, may alam silang bayaran na babae. Dinala nila ako doon at binigyan ng condom. Kung ako lang, hindi ko maisipan gagamit ng condom, kasi nabibiya akong bumili. Nagkagirlfriend ako, ayaw ko siyang mabuntis kaya gamit ko ang withdrawal. Kasi ang condom para lamang sa babaeng bayaran. Mag-asawa na kami ngayon, withdrawal pa rin.”* (“I was still single at the time. Together with my friends, we had a drinking session. Afterwards, they brought me to a place where paid sex was available. Then they gave me a condom. I couldn’t have thought of using a condom because I would be embarrassed to purchase one. When my wife was still my girlfriend, I didn’t want her to get pregnant, so I used withdrawal. Condom is for paid sex. We are married now but we still practice withdrawal”).

The IUD is the least liked by the respondents. The only good thing they cited about the method is the fact that once inserted, the woman has no problem or has less worry. The major disadvantage is its potential to cause reproductive tract infections.

Among the traditional methods, withdrawal is the most popular one. Aside from its economic advantage (no cost, don’t need to buy), it is easy to use and is acceptable in Islam. It has also disadvantages, according to male respondents: they find the sex act not satisfying, it is difficult because of the danger of ejaculating inside rather than outside, and withdrawal is likened to masturbation.

Abstinence is considered effective by male respondents and perceived to have no side effect. To refrain from sleeping with one’s wife is resorted to in order not have more children. The disadvantage cited is sexual frustration which becomes the source of quarrels between spouses.

Herbal contraceptive is popular among the Yakan, Maguindanao, and Tausog respondents. The use of roots, bark and leaves of plants and trees is perceived to be effective, good, and

has no side effects. It is a good option if one desires to space the number of children they want to have. However, women respondents cited the disadvantages, namely: it makes them nauseous, it makes them weak and some consider herbal contraceptive to be an abortifacient.

Rhythm or calendar is commended to have no side effects but its disadvantage is the high failure rate. The women respondents from Maguindanao pointed out the danger of unintended pregnancy when one makes an error in counting the safe and unsafe time of a month. Moreover, couples cannot have sex during the fertile period.

In choosing a method, effectiveness, availability, affordability and side effect are the most important considerations. Majority of the respondents from various study sites affirmed the importance of these factors in making a choice. If a method is effective, "*siguradong hindi mabuntis*" (assurance not to get pregnant), it must be proven, tried, and tested.

Accessibility and availability are other deciding factors as well as cost. The latter refers not only to the affordability of a method but the preference that it be "given" free of charge. The male respondents consider condom as effective, available at the health center or are given free. Pills are also available in the health center.

Moreover, respondents prefer those methods that they are comfortable with. Men, in general, would choose a method that is effective while women would consider a family planning method that has no side effects.

For some, the worst method because of perceived side effects is the pill. The pill's worst side effect is the alleged damage done to the fetus – the likelihood that the fetus will be born abnormal.

#### *Sources of Family planning Information*

In any advocacy endeavor, the channel of communication and the manner of information dissemination are vital in effecting change of behavior. Success of any advocacy hinges on the appropriateness of the medium, the accessibility of that medium of communication and the impact of the message on the people.

Respondents from all ethnic groups were in accord that the health centers are the best source of health and family planning information. Moreover, they are easily accessible and a convenient site for receiving information. All acknowledged the role of the health center and its health personnel in providing health services and in disseminating health information.

Doctors and nurses in health centers were perceived as the best sources of family planning because of their professional training. Medical professionals in the hospitals were also recognized as major health providers for medical services and information but access to and interaction with them was considered difficult and limited because of the volume of patients.

Midwives at the health centers were the most preferred source of family planning information especially on the modern methods. The preference was strongly expressed by

Tausog and Maguindanaoan respondents. The services rendered by midwives on prenatal and post-natal care as well as during birth delivery were also emphasized.

In Sulu and Tawi-Tawi, both better and low-educated males and females of all ages mentioned the midwife and the traditional birth attendant locally known as the "*panday*" as the dominant frontliners in giving health information and services, notably about traditional methods.

The religious leaders were seldom mentioned as sources of information regarding health. A smaller number of respondents said that their religious leader was also a source of information on health but this type of information given by them was mostly confined to cleanliness drives and how to avoid highly contagious diseases such as malaria, diarrhea, etc.

Radio and television were considered by respondents from all study sites as poor sources of health and family planning information because they were perceived as entertainment media. Health information from these sources was mostly superficial. When asked what type of programs they preferred to watch or listen to, majority mentioned soap operas, newscast and music as the most preferred. Male respondents also mentioned televised basketball games as one of the programs they love to watch. However, when asked about the question "Is it appropriate for people to receive information on family planning on radio and TV?", the majority answered in the affirmative.

Most households in all the six study sites own a transistor radio. This type of communication medium is the most popular in all areas. Majority of respondents especially the women across all age groups, whether low or better educated, listen to the radio daily.

Television is also a favorite medium for entertainment and news gathering. A great majority of the respondents affirmed watching television shows. If they don't have television sets at home, they watch it in a neighbor's house that has one. It must be noted that most houses in ARMM do not own a television set.

Print media, especially the newspaper, were not mentioned as sources of information because for the majority of them this type of medium is inaccessible. The same is true for magazines, brochures, and pamphlets.

For general information, the most influential and credible source is the radio and television, according to majority of respondents from all study sites. They believe that information they get from television is correct and accurate, as evident from answers like: "*Kasi hindi man nila ipapalabas sa TV kung hindi totoo yun at mas epektibo kung sa TV natin makikita.*" ("Because they will not show it on TV if it is not true; besides on TV you can really see it.") "*Kasi kabiti doon pa yan sa malayo makita mo man sa TV so mas pinaniwalaan.*" ("Because even if the event happened in a faraway place, you can see it on TV, so it is more believable.") In terms of health and family planning information, the health service providers (doctors, nurses, midwives and traditional hilots) are still considered the authority when it comes to health and family planning.

## Intention to Use Family Planning

The Tausogs of Sulu are open to the idea of using family planning method in the future. The men expressed some conditions: “if the wife would decide to use,” “if the wife would choose a pill,” and “if the method is effective.”

Their female counterparts are surer in their affirmation to use family planning methods. They have the intention to try pills, injectable, and condom. A few expressed a conditional intention; the use would hinge upon their reaching their desired number of children, and the choice of a method with no side effects.

The Tausog male respondents from Tawi-Tawi who had never used any method were in accord in their intention not to use, since they considered their wives as too old to get pregnant, while those with younger wives wanted more children. The women had different views. Some were contemplating to try pills, herbal contraceptives and condom; others had reservations because of fear of side effects.

A handful of Maranaos in Lanao del Sur expressed their intention to use family planning method. But there were also a few who were vocal in negating the possibility of adopting family planning in the future.

Among the never-users from the Yakans and Maguindanao who intended to consider family planning use, the methods they were likely to choose included pills, injectable, and condom. Some wives would not think of using because of their husbands’ objections. Fear of side effect was an expressed reason for not entertaining the thought of using any method.

The younger Maranaos in Marawi, however, especially the females, were enthusiastic and affirmed their intention to use family planning. Some would want more information before deciding to use, others claimed to think about it, and a few declared to have no intention to use at all.

## Ethnic Identity: Its Influence on Decision-Making

Whether male or female, low-educated or better-educated in all of the study areas, ethnicity does not serve as a guide in making important decisions in life. Majority of them claim that being a Muslim is a major influence in decision-making.

*“Ang pagiging Muslim ay may kinalaman din sa aking mga desisyon. Halimbawa ayaw kong may kaaway dahil tinuturo sa religion ko na buwag makipag-away o ayaw kung uminon dahil bawal din ito.”* (“My being a Muslim influences my decisions. An example is I don’t want to have enemies because it is against the teaching of my religion nor will I drink liquor because this is prohibited for us Muslims.”)

Answer of a 23-year-old better-educated married male FGD participant from Tawi-Tawi

A segment of the Maranao informants claimed that Maranaos are conservative and quite strict in adhering to the rules. It is close to saying that their ethnicity or being a Maranao has a bearing in making decisions in life but they also anchor it to their religion. Some ethnic groups have descriptions of who they are as a people. They express pride in their ethnicity and heritage. For example, Tausogs from Jolo and Tawi-Tawi claim that they are brave people and are noted for their valor. While the Sama respondents from Tawi-Tawi claimed that they are peace-loving and they would rather stay in a place where they are the dominant tribe than stay in a place where people have ways that are different from theirs.

When it comes to decision-making on whether to adopt a family planning method or on the number of children to have, their being Muslim is their guide rather than their ethnic identity. In sum, ethnicity is not a major factor in decision-making, whether it concerns reproductive health or family planning-related or otherwise.

Some of the informants also claimed that their decisions whether to adopt a family planning method or on the number of children to have is their own rather than based on their religious affiliation. "*Iba-iba ang style ng mga Muslim. Mayroong ayaw ng maraming anak mayroon ding gusto ng marami. Nasa tao na yun kung ano ang gustubin niya. Hindi sa pagiging Muslim.*" ("Muslims have different views. There are those who don't want many children and there are those who want many. It's a personal choice and not on his being a Muslim.")

## Conclusion and Implications of the Results

The low contraceptive prevalence (16 percent) of ARMM is nearly three times less than the country's contraceptive prevalence. Moreover, of this figure, only nine percent are using modern methods (PopCom, 2001). The level of unmet need is pegged at 29.4 percent, a figure that is highest among the regions in Mindanao.

Considering these realities, the study outcome in probing into knowledge, attitudes and beliefs about family planning, may provide explanations and may contribute to the development of interventions that would be acceptable to the Muslim population.

Countrywide, knowledge on family planning is high. The NDHS (1998) presented a figure (98.6 percent) indicating that almost all currently married women from the ages 15 to 49 years know of any method. This knowledge, however, is not translated to practice since the percentage of currently married women, ages 15-44 using contraceptive method is only 47, less than one half of those who have the knowledge.

The percent of women who know of family planning method in the ARMM is not at par with that of the entire country. Currently married women who professed to know of any method was pegged at 78 percent but those who use any contraceptive method constitute only 16 percent.



Overall, females are more knowledgeable than males and greater awareness is for traditional methods. Knowledge of modern methods is superficial and deficient. A considerable body of misconceptions abound and myths strengthened by hearsay and unfounded stories exacerbates the negative view of family planning.

The outcome of the study suggests the varying degrees of knowledge on family planning among the Muslim population. The consensus derived from observation and from responses show that the Tausogs from Sulu and Tawi-Tawi as well as the Maguindanaos are knowledgeable in comparison with the Maranaos. Moreover, they are open-minded and seem to be comfortable when discussing family planning.

Nevertheless, it is apparent that in each ethnic group, there is variation in the level of knowledge among individuals. These levels can be categorized into non-awareness, awareness, interest, evaluation, trial, and adoption. The first level describes those who have not heard about family planning and there may be few or many. Most likely these are people who live in remote places, are low-educated and still have a strong religious and cultural orientation.

Apparently, most segments of the Muslim population are still in the awareness stage; the individual knows the family planning methods but lacks sufficient information about it. Gleaned from the results of the study, there is quite a substantial number of individuals belonging to this segment.

The interest stage is when individuals seek more knowledge. This is a crucial stage that should be addressed. Among the Muslim youth, they claimed the need to know more; this is, however, thwarted by shame and embarrassment to seek information about family planning when they are unmarried.

In spite of the prevailing misconceptions, interest to know more and intention to use family planning methods in the future were expressed by the never users which augurs well for the family planning program.

Some couples burdened with many children are in the process of evaluation, wherein they make mental application on their present situation and are on the verge of making a decision, whether or not to practice family planning. This is the dilemma of newly married couples with no economic independence or those who are already grappling with raising a large number of children and are contemplating to adopt a method. Perhaps what they need are triggers to put into action the intention to use family planning.

Men and women, who are newly current users and those who have ever tried a method but shifted to another one, are in a trial stage. Their knowledge may be sufficient but what they need is an informational assurance which will allay their fears of side effects.

These varying levels and limited horizon of knowledge, partly explain differences in the acceptance of family planning methods.

Ambivalence characterizes the attitudinal position of Muslim men and women with regard to family planning. While a large segment of the respondents holds a favorable attitude, there is also a greater segment which nurtures an unfavorable attitude towards use of family planning, especially towards the use of modern methods.

Cognizant of the effect of having too many children on the health of mothers and to the economic burden of raising them, respondents are in accord to view family planning in a favorable light. The youth and the adults concur that they experience difficulties and hardship and that they favorably endorse use of family planning.

On the other hand, the unfavorable attitude especially on the use of modern methods is shaped by religious prohibition, reinforced by misperceptions and unfounded stories of the side effects of methods.

Aside from the limited knowledge and the ambivalent attitude, another explanation assumed to influence acceptance of family planning is the presence of existing cultural values and norms on marriage, pregnancy, and children. In the scheme of things, children are valued highly and, as such, provide the justification of having a large family size.

Children are societal desirables, and the meaning attached to them encompasses the spiritual, economic, social and political aspects of people's lives. Children are means to salvation, insurance in old age, providers of economic and political support, and assurance for the perpetuation of the family line.

Benefits of having many children are seen on the individual and societal levels. Imams professed the importance of children in the propagation of Islam. In a culture which is considered a minority in a predominantly Catholic country, the impetus for having more children is a justification which may override individual preference.

The practice of arranged marriage has implications on the limited acceptance of family planning. The purpose of choosing or arranging the marriage partner of one's child is to widen one's power base. In a culture which places high premium on clan loyalty, the clan being the source of protection and providing the sense of belongingness, decisions on who to marry and to have children must have the stamp of approval by the clan through the parents. The norm set on arranged marriage has social and political undertones.

Resources, social status of the family, and physical as well as educational attributes of a person govern the choice of a marriage partner. Built into that is the size of the clan. Being married to a clan in good standing and large in its constituency is an advantage not only to the direct family but also to the entire group.

Thus, spending a fortune on bride price is a clan investment; in certain cases, the amount is beyond the capacity of the family. Contributions from the clan members are solicited to

meet the amount demanded by the bride parents. In order not to lose face, the bride price has to be met.

It is not surprising then if relatives or clan members may put pressure on the newly married couple to have as many children as they can, because this will insure strength of the clan.

The practice of arranged marriage may be waning as affirmed by the youth. They believe that parents now are realizing the need to give their children freedom to choose whom and when to marry. This could be a beginning of change, from the traditional to the liberal mold.

However, there are pockets of Muslim population, the low-educated, those residing in the hinterlands, and those who had not been acculturated, that cling to the practices found to have worked well for a long time. Thus, there are two opposing groups: those who cling to the strict, traditional norms and those who are enlightened and assume an open mind for change.

The picture of ambivalence is seen in the discussion of the desired number of children. The young married respondents want a smaller number, however, the desire is propelled by their economic condition. They would like to have more if they have the resources and if the health of the mother warrants having more children.

A large number of respondents affirmed to have experienced unintended pregnancy. Mostly, this occurs when couples are too young and not ready to assume parental responsibility, have no income and are just dependent on their parent, or the wife has just delivered a baby.

Aside from the confluence of religion, cultural norms on family size and children, the practice of arranged marriage and limited knowledge about family planning, the acceptance and use of a particular method is also determined by stereotype beliefs and societal labeling. These factors are so intertwined and interrelated that to unravel one from the other is difficult.

The knowledge and use of traditional methods, particularly withdrawal, is widespread albeit some indigenous methods practiced are questionable in its effectiveness. A lot of misperception and fear of side effects is held regarding the modern methods.

Results from the study indicate three major channels of communication: the health center and the service providers, the tri-media, and the informal channel via word of mouth of friends, neighbors, and relatives. The popular channel of information on health in general and family planning in particular is the local health center through its staff of service providers.

Radio and television are poorly considered as channels of family planning information because they are for entertainment only. Although there is a widespread ownership of radio and information from both channels are adjudged to be influential and credible, nevertheless, respondents are in accord that the coverage of health and family planning information is

limited and superficial. Moreover, they deplore their inability to ask questions or make clarifications.

Networks of social relations consisting of friends, relatives and neighbors are also sources of information. Older people and the "*panday*" are informative especially regarding traditional methods.

The influential and significant people who can make and influence a decision for or against family planning are parents, a sibling who had spent for their education, and relatives who have power in the clan or within the community.

Respondents are in unison that their being a Maranao, Yakan, Tausog or Maguindanao does not serve as a guide in decision-making. It is being a Muslim that counts. This presupposes that any decision is based on their religious beliefs rather than their ethnicity. While this may be true in the aspect of making a decision the ethnic differences are evident in other aspects of their lives.

The results of the study provide rich insights and explanation to the acceptance and use of family planning method. These have brought to fore the intersecting influence of limited and deficient knowledge of modern methods of family planning; cultural practices and norms on family size, value of children, arranged marriage; stereotype labeling and misperceptions and fear of side effects; and the religious prohibition which consider use of modern method to be "*haram*." This, in a sense, is a strand that binds them to make choices, to accept or reject family planning.

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# Voluntary Vasectomy: Rethinking *Pagkalalaki* Among Married Cebuano

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## Abstract

**T**his qualitative study intends to determine the ways in which concepts of masculinity have shaped the contraceptive choice of men for vasectomy. The findings show that masculinity is defined as being a responsible husband and father who can provide for the basic needs of his family such as food, clothing, and education. Thus, men's direct participation in family planning is basically due to economic reasons because of his responsibility to take care of his family's future.

Wives and health providers have significantly contributed in men's decision to undergo vasectomy. Wives provided information about the procedure and supported their husbands' decision to have a vasectomy. Health providers thoroughly explained the procedure and corrected myths and misconceptions regarding the procedure which gave men an assurance that vasectomy is safe and reliable. In-laws and friends did not have noteworthy influence on men's decision.

It did not take long for men to decide on undergoing vasectomy after they received information about it. This was especially true when misconceptions associated with having vasectomy such as failure to have an erection, loss of physical strength and equating it with castration, to name a few, were corrected. After having vasectomy, men still saw themselves as masculine and rightfully being responsible husbands and fathers.

**Keywords:** masculinity, fatherhood, male involvement in family planning, contraception, no-scalpel vasectomy

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## Introduction

Society's concepts of masculinity impact on the way men see themselves, make decisions and relate with others. *Masculinity* refers to a culture's ideal definition of maleness or male behavior. It also refers to the reality of male lives as revealed in concrete male activities and behaviors (Watson-Franke, 1992). Masculinity is linked with "dominance, and notions of power are part of male discourse, so much so that power is assumed to be a male prerogative, representing a contested space for the articulation of male identity" (Melhuus, 1998). Moreover, Gutmann (1997) stressed that, foremost, masculinity is anything men think and do to be men, and some men are intrinsically considered more manly than other men. This is further supported by issues on *masculine gender role* or what men are, *stereotype of masculinity* or what people *think men are*, and *gender ideal* or what people *think men should be* (Clatterbaugh, 1990, cited in Watson-Franke, 1992).

Concepts of masculinity start from childhood. *Socialization* plays a vital role in shaping ourselves, how we see ourselves and how others see us. Being masculine is apparently upholding male values by following norms set for male behavior. Socialization into gender roles from childhood to adulthood shape men's liking for certain things like "guns, forms of behavior like womanizing, and forms of leisure like long range shooting, gambling, and drinking". These are even reflected in movies and television shows that deify certain concepts of maleness including certain forms of violence against women (Angeles, 2001). The paper of Connell (1997) further supports this by saying that sports on television, thriller movies in Hollywood, video games and super-hero comics, highlight the physical supremacy of men and their being "masters of technology and violence". These create a great impact on men's lives that they cannot entirely be faulted for their transgressions.

In the Philippines, "male norms stress values such as courage, inner direction, certain forms of aggression, autonomy, mastery, technological skill, group solidarity, adventure, and a considerable amount of toughness in mind and body" (Sexton, 1969:209). As a result, there are traits that men should possess and masculinity is comprised of being *malakas* (strong), *matipuno* (brawny), *malaki ang katawan* (big bodied), *maskulado* (muscular), and *malusog* (healthy) (Jimenez in Liwag, de la Cruz and Macapagal, 1998). Emphasis is placed on physical characteristics because a man is expected to do heavy work, and in Maranao culture, a set of brothers are considered as their fathers' "army" (Macalandong, Masangkay, Consolacion, and Guthrie, 1978, cited in Liwag, de la Cruz and Macapagal, 1998).

Chores assigned to boys are characterized by physical vigor, distance from home and minimal socio-emotional skills. Tasks include fetching water, gathering and chopping firewood, scrubbing the floor, lifting furniture and carrying heavy objects, to cite a few. Most of the time, they work closely with their fathers. However, they also provide relief to their mothers by assisting in child care when girls are not available (Liwag, de la Cruz, and Macapagal, 1998).

These behavioral patterns are prevalent among adolescent boys. Boys grow up assuming that a husband's role is to decide on family investment and securing the family, while they see that a wife's role is to take care of family planning and household management (Macrohom, 1978). The training of sons prepares them for their traditional role of head of family.

### **Filipino Models of Masculinity**

Virility is a central issue among men because failure to produce children is seen as a reflection of one's masculinity. In Philippine society, the siring of children is considered such an important achievement that children are often assumed to have a lifelong indebtedness to their parents for giving them life (Tan, 1989). In the same study by Tan (1989), he described the "procreator father" as someone who womanizes and impregnates other women and popular actors such as Joseph Estrada (who became President of the Philippines), Lou Salvador, Jr. and Dolphy embody such characteristics.

Childbearing is key not just for reproduction but for other related reasons as well. For instance, among Ilokanos, where kinship is considered bilaterally, fathering children and having a family is a way of asserting not just masculinity but political claims as well. Ilocano overseas migrant workers often see their work as limiting the number of children that they could have produced (Margold, 2002)

Aside from fathering children, Filipino men have also taken on the conspicuous role of being sole providers of their families, a much-valued characteristic found among men in many cultures. A study conducted by Pingol (2001) among Ilokanos revealed that masculinity is primarily associated with men's ability to provide for the family which is related to success in the workplace. Modern-day Ilocanos revealed that the ideal husband is someone who can attend to his household and familial duties, most significantly to securing his family's economic stability (Margold, 2002). Other attributes cited by Pingol included: "being a good leader, with intelligence and expertise, being principled, helpful, decent, law-abiding, trustworthy, and understanding". In addition, attributes such as virility, physical strength, good looks, a capacity to take risks such as in gambling and having illicit affairs without being irresponsible to one's family were likewise cited by men.

### **Masculinity, Fatherhood and Contraception**

In patriarchal societies, men are seen as the superior sex (Wood, 2001)) and this shapes how men assert their masculinity in their behavior. Men rate their masculinity based on the extent of their machismo. Machismo encompasses "virility, strength, ability to stand up against difficulty and maintain their stance as true 'men among men'" (Velez, n.d.). For a man to be macho or masculine, he should be sexual and be able to impregnate a woman or even a few of them within or outside the confines of marriage. Machismo is not just a personal thing,

it has also become political and structural. Society tolerates and perpetuates it (Sternberg, n.d.). Having extramarital affairs is something prevalent in Philippine society and there is a double standard of morality where men can easily get away with it and women sometimes turn a blind eye on their husbands' infidelity like cohabiting with mistresses and engaging in paid sex with prostitutes (Angeles, 2001).

Part of showing a man's strength is his ability to control his emotions even to the extent of not showing fear, pain, and remorse when it might be expected. The danger of a man's strength is also his ability to physically express it through violence on women and children. Despite many challenges, a man should be able to face other men on his own and without the help of anyone, especially a woman (Doyle, 1995, cited in Wood, 2001). Watson-Franke (1992) adds that men's roles are perceived as structurally at the epicenter of society from where women are always controlled by men. This is evident in the seeming tolerance of women when it comes to men's activities in a study conducted by Angeles (2001) where women in an urban poor community in Laveriza were going about their usual duties while men were "chatting, smoking, and playing a game of pool." As Sternberg (n.d.) puts it, "machismo gives rise to powerful images which legitimize women's subordination, and establish a value system which is concerned with regulating not so much relationships between (sic) men and women, but relationships between men, where women are conceived of as a form of currency."

Doyle (1995), outlined five themes of masculinity which shape the role of men in society which are: *don't be female, be successful, be aggressive, be sexual and be self-reliant*. These themes are ideas which, rightly or wrongly, still exist today. Because of them, men fail to fully harness their potentials. For instance, it has been pointed out that norms and expectations regarding men have hindered their ability to communicate with their wives on matters regarding sex and sexuality (Stycos, 1996). This is even reflected in the form of jokes in a research done by Angeles (2001) where men say they are "*macho, machunurin sa asawa*" (macho here means being obedient to one's wife), then there's "*Yakuza, yuko sa asawa*" (means bowing to one's wife) and finally, "*Pedrong Taga, taga-luto, taga-laba*" (means tough men who do the cooking and laundry). So, even if there is a changing climate on the male image, there is still some sense of uneasiness thus, joking about it provides some relief. The macho image has also prevented men from sharing domestic responsibilities with women, such as the decision to try contraception. Because young men live up to strong male stereotypes such as having many sexual partners and, showing a lower level of emotional intimacy, they hesitate to share in sexual responsibility (UNFPA, 2000). Men are, often with good reason, stereotyped as lazy, disinterested or unconcerned in relation to reproductive health issues. Even program planners have this stereotype of men as simply not being interested in reproductive health issues: they still need to be forced to attend social activities related to them, they are way too old to be taught, they do not see anything advantageous in them, they do not want to share their

personal lives, they fear their masculinity will be challenged, they believe that women should be the ones to participate, they know little about health, or they do not perceive certain health issues as problems (Lee and Dodson, 1999).

Male self-stereotyping limits the options available to men and, therefore, of women also. However, machismo as the excuse to perpetuate the status quo, in which men dominate and women are subordinated, can be challenged. For instance, women's rights advocates have questioned the pitfalls of family planning programs in the Philippines since it still heavily targets women and to some extent excluding men and thereby abandoning their responsibilities on contraception (Angeles, 2001). A study by Lee and Dodson (1999) revealed that there are programs on reproductive health that encourage male participation, but male participation is minimal (as in attending women's or mother's classes or seminars or as receivers of educational materials). A more considerable participation of men has occurred in the decision to use condoms and in trying vasectomy.

The pervasive problem of machismo as a limiting factor is one that health care providers must challenge. It is not just about male participation and responsibility, but more about raising the issue of gender equality and family welfare to another level (UNFPA, 2000). Gender equality is a complex challenge since success in this area requires far-reaching changes in social, economic, and ideological factors related to gender relationships (Mundigo, 1995 in Manroso and Hoga, 2005). There is now a growing interest among young men to accept principles of gender equality. Now, it is about rethinking and reshaping old and oppressive concepts and practices that impinge on the development of both men and women.

### **Antecedents, Reasons and Events Leading to Acceptance of Vasectomy**

It is important to understand the decision-making process that men undergo before submitting themselves for vasectomy because this may vary from one culture to another. In the design of programs, therefore, culturally appropriate strategies that seriously consider the felt needs of the target population need to be put in place. In a study conducted by Mumford (1983) in the United States, the length of the decision-making process may take from two to more than 10 years. This is unlike the findings from a study conducted in Brazil, Colombia and Mexico (Vernon, 1996) that it only took men four months to a little over a year to decide. In the Philippines, it has been found to take men about three years to finally undergo vasectomy after giving it a first thought. However, it only took them about three months to undergo vasectomy after making the decision to accept the method (de Guzman, 1990).

Men's reasons to undergo vasectomy heavily rely on the urgency of the situation they are in and their past experiences. The reasons cited by Mumford (1983) include concern for

women's health, decision not to have more children, dissatisfaction with other methods and advantages of vasectomy. He also mentioned that there are seven events common to men seeking vasectomy which consist of: new awareness of vasectomy, interaction with a vasectomized man, decision not to have more children, started seriously considering vasectomy, realization that temporary contraceptives are no longer acceptable, decision that vasectomy is the best contraceptive method and experienced a "scare".

### Rationale of the Study

In Central Visayas, the city of Cebu is the hub of political and economic activities. Several pull factors draw people to it, such as employment opportunities, institutions of higher education, hospitals, and a relatively peaceful environment. People choose to live in Cebu to better their lives. According to a National Statistics Office report (July 2001), the population growth rate of Metro Cebu almost doubled from 1.87 percent in 1995 to 3.02 in 2000. The Cebu City Health Department reported in 2001 that the city population increased from 718,821 in 2000 to 731,544 in 2001. Its total fertility rate in 2001 was 1.7. Because of its attractiveness to many, its population growth is already placing a strain on its limited resources such as the delivery of basic social services.

Family planning is an option that the Philippine government is looking at to curb current and future problems related to population growth. Its approaches are still essentially traditional such as heavily targeting women and placing the responsibility for the number and spacing of children on them. Men's responsibilities in this regard are left unattended. This is despite the Programme of Action of the United Nations International Conference on Population and Development in Cairo (1994), which highlighted the increased participation and sharing of responsibility of men in the actual practice of family planning.

Among the top family planning methods that the Cebu City Health Department reported in 2001, vasectomy was not on the list. Condom use was the third most common method. The top two are pills and DMPA both of which are for women. Vasectomy remains unpopular because in a male-dominant, "macho" society, men are not supposed to take an active part in fertility regulation. Women have always been perceived as responsible for family health in general and fertility regulation in particular. This has become a "domain" of women where men play passive roles. The lack of male involvement with contraception is due to the fact that it is considered "a woman's affair" (Diaz and Diaz, 1999, in Manhoso and Hoga, 2005: 102). Moreover, vasectomy is highly disliked because of misconceptions that surround it, wherein vasectomy is confused with castration, that it decreases sexual abilities, and that it leads to loss of vitality or changes in a man's physical characteristics such as hair loss and change of voice, and even to changes in his personality (Atkins and Jezowski, 1983).

There are now efforts from both government and non-government agencies that seriously include men in their family planning programs and one such effort is to promote vasectomy as a contraceptive method. There is a sense that men are now beginning to open themselves up and accept vasectomy as an option. However, the materials are limited that specifically explain the reasons for the choices that some men are now making and that reveal whether and how these decisions may have created a difference to the people that are involved, such as the family, health care personnel and the community. It is the intent of this study to present the contextual circumstances and the impact of the choices that some men are now making on *pagkatalaki* (Cebuano for “maleness”), a cultural concept.

### Methodology

During the preparatory stage, I held several meetings with the personnel of Sacred Heart Hospital to orient myself on their delivery of no-scalpel vasectomy services. These meetings helped in the formulation of research instruments and establishment of a plan to undertake with the data gathering stage. A list of clients for the past two years was found and I was given an orientation on their backgrounds. Two research assistants were introduced to these personnel.

A male, married interviewer was hired to assist in the in-depth interviewing of men who had undergone vasectomy. A female interviewer was hired to interview the wives. I held interviews with key informants consisting of the personnel of Sacred Heart Hospital directly involved in the delivery of no-scalpel vasectomy and facilitated focus group discussion of the men after the in-depth interviews were conducted by the research assistant. The research assistants were oriented regarding the study, research instruments, ethics, mechanics of data gathering and reporting.

Before the interviews were conducted, several phone calls and home visits either in the home or office of the possible respondents for appointments were made to arrange appointments and instructions on the time and place where the interviews would be conducted were discussed. One-on-one in-depth interviews with vasectomized married men were conducted using an interview guide designed for this purpose. One-on-one interviews with the wives of these men were also conducted separately. Moreover, interviews were conducted with health care professionals who were directly involved in the promotion and delivery of services related to vasectomy. Field work was conducted from January 2004 to October 2005.

Interview transcripts were submitted on a weekly basis. Together with the interviewers, the transcripts were immediately checked for gaps in the data and clarifications that needed to be made, so that call backs were done immediately as well. Challenges encountered by the research assistants were discussed in order to properly strategize the data-gathering process. No major problems were encountered.

After the in-depth interviews, there were still gaps in the data. Thus, the male research assistant and I, did two focus group discussions.

All the instruments except those for the service providers were translated into the local language, Cebuano. Interviews were also done in Cebuano.

I also collected available secondary data. Performance records of health care facilities were utilized to acquire information on the number of vasectomized men over a period of two years (as to whether it has increased or decreased), the problems encountered, and interventions made in relation to problems faced.

All data were first processed by entering all answers belonging to the same question. At the onset, data were encoded thematically and then common patterns of knowledge, attitude, behavior and experiences were identified by going over the transcripts several times. Different and conspicuous answers belonging to the same questions were also grouped together. They were then content analyzed through the set of themes or categories made. Salient words were given greater weight by taking note of the number of times they were mentioned by the study participants. Data gathering was from October 2004 to January 2005.

## Results

### Childhood Chores of Boys

Majority of the study participants shared in doing household chores while they were growing up. Most of them were given responsibilities by their parents while a few took the initiative to help in domestic work even if they were not encouraged by their parents to take part in doing household chores. As one participant said:

*I was not really given any responsibilities at home. It was self-imposed. I helped clean the house and did the laundry.*

Another participant revealed that:

*I was not given any responsibility in particular by my parents. There were instances though that I helped in doing simple household chores such as cleaning the house.*

Aside from household chores, there were those who at a young age, were already trained to help in their family's means of livelihood such as farming, fishing, and small business. A few claim that since they were the eldest or there was no female child, they were compelled to take on most of the household chores even those that are normally considered tasks for female children, such as taking care of the younger siblings, cooking, and doing the laundry.

On the other hand, there were also those who were only assigned tasks fit for male children such as feeding the animals, chopping firewood, and fetching water. Most of the domestic responsibilities as shown in Table 1 are cleaning the house, cooking, and fetching water.

TABLE 1. Domestic Chores Done during Childhood Domestic chores

Domestic chores (N = 44)	Number of mentions
Cleaning the house	17
Cooking	13
Fetching water	10
Washing the dishes	8
Doing the laundry	8
Feeding animals	1
Chop firewood	1
Take care of younger sibling	1

Multiple response

For those with grown-up children, a majority admitted that the way they had been reared by their parents influenced how they rear their own children. As in their past training, they also consciously teach their children to do household chores and even divide the tasks among them with older children taking more responsibilities (Table 2).

TABLE 2. Parents Assigning Domestic Chores to Children

Responses	N = 44	%
Yes	31	70
No	0	-
NA (children are very young)	13	30
<b>TOTAL</b>	<b>44</b>	<b>100</b>

The common tasks assigned included washing the dishes, doing the laundry, and cleaning the house (Table 3).



TABLE 3. Domestic Chores Assigned to Children

Domestic Chores (N = 44)	Number of Mentions
Doing the laundry	5
Washing the dishes	5
Buying from the nearby <i>sari-sari</i> store	4
Cooking	3
Fetching water	2
Multiple response	

It is deemed important that children, even at a young age, should be taught domestic responsibilities so that if anything adverse happens, such as running into financial distress, they would not find it hard to adjust in terms of helping in domestic responsibilities. This response also held true for those with household help around. A participant shared that:

*In a way, I think it has affected the way I have been dealing with my children. Now, my wife and I have been teaching them basic responsibilities in the home like cleaning up their own mess especially after playing with their toys even if we have a household help.*

One parent admitted that even if it is important to teach children to participate in domestic work, it should not be to the detriment of their studies. Studying for the next day's lessons remains the top priority for their children.

For those who were trained to help in their family's source of income, they also imparted it on their children such as helping them sell goods in their stall in the market when there are no classes. In addition, there were those who assigned tasks based on the gender of their children. For instance, girls did the laundry and cooking while boys fetched water.

Study participants with very young children could not yet say if their upbringing affected the way they rear their children because they have not yet assigned tasks to them. For those with older children, the way they were brought up especially in terms of doing household chores influenced the way they rear their children by also assigning simple household chores to them.

### The Concept of "Real Man" to the Respondents

In relation to how the men were raised and how they in return raised their children, husbands and wives were asked on their views of the measures of a "real man" (Table 4).

TABLE 4. Characteristics of a "Real Man"

Characteristics	Number of Mentions	
	Husbands (N = 44)	Wives (N = 34)
Responsible	41	29
Respects women	2	8
Physically strong	0	6
Shares in domestic work	1	4
Does not have vices	1	4
Disciplines children	0	4
Affectionate towards wife	0	3
Honest	0	3
Not effeminate	1	3
God-fearing	0	2
Capable of siring children	0	2
Attracted to women	1	1
Participates in Family Planning	0	1
Multiple response		

Predominantly, both husbands and wives mentioned that a "real man" is viewed as responsible for meeting the basic needs of his family such as food, clothing, and education. This means that a husband must be able to answer the financial needs of his family, thus he should be earning on his own. However, he should still be able to make time for his family and be caring and sweet towards his wife. His family should be his priority and he must have a keen sense of foresight in terms of establishing a good future for them especially in terms of handling the family's finances. A wife said:

*He should be responsible for his family and can provide for their needs. He should also be able to find means to ensure the future of his children. He must also have his own stand on certain matters and must have a plan in life. All these must be good because it is for the future of his family.*

More wives than husbands mentioned that engaging in vices such as drinking and having extramarital affairs would prove to be detrimental to the future of the family. Wives emphasized that if the husband does resort to drinking, it should only be in limited amounts and must not become habitual. In connection, honesty towards one's wife is important. It does help that the husband is God fearing and morally upright.

As the head of the family, the husband is not only expected by wives to take care of the financial needs of the family but when needed, he should also help in the household chores; thus, he should be physically strong. He is also expected to be involved in taking care of the children and instilling discipline in them. As a partner, he is expected to understand his wife, her work schedule, and her interest in helping to meet the financial needs of the family by being gainfully employed or engaging in small business endeavors. A husband also needs to support his wife emotionally. For instance, during heated arguments, the husband is expected to listen rather than angrily engage his wife and shout at her. As a result, he should not harm or ridicule her; instead, he must respect her.

The physical characteristics of a “real man” include his ability to sire children which was only mentioned by the wives. Thus, men should be attracted to the opposite sex. But even if he is expected to sire children, he should also be responsible to take measures to participate in family planning to be able to meet the needs of his family in the future. Other physical attributes include his strength and ability to do simple household repairs such as plumbing, electrical work, and other minor mechanical problems. This requires him to be energetic, not frail.

It was conspicuously cited that a real man is not gay or does not possess characteristics attributed to gays. As a wife cited:

*You would not see him engage in small talks with women like gays do. Gays almost always mind their neighbors' business and backbite them. He should only mind his own business and must be able to discipline his family.*

A man who is *macho* is physically fit, robust, strong, and mentally competent. Because he is physically healthy, he is predictably hardworking and can be relied upon by his family to meet their needs. The downside of being *macho* occurs when a man succumbs to wrong notions such as refusing to participate in domestic work like doing the laundry and taking care of the children, leaving the wife burdened with domestic work.

Beyond the physical characteristics, a majority of the respondents equate being responsible in terms of taking care of the basic needs of the family with being *macho*. This means that a husband takes care of his wife and children and works to ensure their future. Even if family members heavily rely on the husband, he does not have a monopoly in terms of deciding what is best for the family. Decisions must be reached together with the wife or if not, the wife should at least be consulted and her views taken into consideration.

One respondent mentioned that being *macho* is positive because he believes that men should be strong especially since women are weak physically. But generally, a *macho* man is seen positively because he only seeks what is good for the family and this comes with great responsibility.

In summary, men who have been trained to participate in domestic work when they were still young admit to have been influenced by that experience in the way they rear their own children. Grown children are assigned simple household chores to prepare them for future responsibilities. Responsibility in terms of meeting the basic needs of his family and ensuring its future is an important aspect of a “real man”.

### Male Involvement in Family Planning

Many of the men say that family planning is something that couples should agree about and decide upon together. They *realize* though, that being the head of the family, with the responsibility to plan and chart its future, is a big challenge placed upon them. Thus, they are now taking the full responsibility to stop having children by choosing vasectomy. In Table 4, husbands never mentioned that one of the characteristics of a “Real Man” is the capability of siring children which was mentioned twice by the wives. For those men who see the initiative to undergo vasectomy as solely their own, they claim that as men, they have the exclusive responsibility to look for a job to earn for the family and this also means looking after its future.

In Table 5, male involvement in family planning not only means limiting the number of children but is more importantly about sharing the responsibility of nurturing them and ensuring their future, especially their education. Nurturance of children means taking an active part in instilling in them discipline and good manners. Additionally, husbands ought to share in the domestic responsibilities like doing household chores and helping in the marketing. Since women are burdened with risks associated with pregnancy and giving birth, thus, having a vasectomy is a husband’s contribution.

TABLE 5. Importance of Male Involvement in Family Planning

Reasons for Male Involvement in FP (N = 34)	Number of Mentions
Shared responsibility	23
Ensure future of family	16
Limit number of children	8
Multiple response	

In discussing with the husband which family planning method to adopt, wives emphasize that factors such as spacing and number of children should be considered. For instance, if couples choose the natural family planning methods, the husbands are expected to be cooperative and understand that there are times that their need for sex must be forgone to avoid pregnancy.

Men view family planning not only in the context of limiting the number or spacing of their children (Table 6).

TABLE 6. Reasons for Choosing Vasectomy

Reasons (N = 44)	Number of Mentions
Economic	27
Limit number of children	15
Health of wife	8
Contraceptive failure	2
Spend quality time with children	1
Multiple response	

They cite that they got involved also because of their desire to meet the needs of their family especially their children. The needs ranged from giving them food, shelter, education, and guiding them by participating in their care and nurturance. Husbands recognized the fact that the methods available are woman-centered such as pills, ligation, and intrauterine devices. However, no-scalpel vasectomy is also an available option that couples can choose to safely plan the number of their children.

One respondent confessed that it is better if husbands and wives are able to agree on family planning, although in his case he decided against the view of his wife. She was against vasectomy because she views it as a sin. This conflict did not last long since the wife eventually saw that the decision of her husband is for the future of his family.

In relation to meeting the needs of the family as part of the responsibility of men, views on reasons for choosing vasectomy as a family planning method were asked (Table 6). The difficult economic situation of most families prompted the men to undergo vasectomy. They realized that due to spiraling prices of basic commodities and the increasing cost of meeting the basic needs of their families such as food, clothing, shelter and education, they should take matters in their own hands. Being the family heads had never been easy especially when their incomes could barely meet family needs especially for those having more than three children. One father admits, that as a responsible partner he should be able to match his income with the number of children he has whose needs he must be able to provide.

Men are also concerned with the health of their wives. For instance, frequent pregnancies have caused reproductive health problems for their wives. As one husband narrated:

*I was very afraid of the idea that my wife would get pregnant again because she almost died during her last delivery.*

For those whose wives were also using artificial contraceptive methods such as pills, the husbands were concerned with the adverse effects, which included perceived mood swings.

For couples who were already using family planning methods, they experienced failures both in the natural and artificial contraceptive methods. For instance, a couple was using the rhythm method which failed and eventually resulted in pregnancy. Moreover, men had realized that the burden of reproduction and raising children had always been the wives' concern, which brought about health problems for their wives. One husband said that:

*I really thought that we would only have four children but my wife got pregnant a fifth time. We were using the rhythm method which failed. My wife was going to have a ligation but we found out that her blood pressure is elevated. I was told that ligation would not be good for her.*

Men chose vasectomy because they had already reached their desired number of children. More importantly, spending quality time with the children is important, for according to one father:

*First of all, I think having only three children was wise enough. The reason for not having more children is not primarily due to my financial capability to meet their needs, it is more on raising them well by spending "quality time" with them. Having only three kids, I still sometimes feel guilty because I am not able to give equal attention to all of them.*

When the men were asked during the focus group discussions to enumerate the three reasons for opting to undergo vasectomy, they cited the prevailing economic crisis, coupled with threats to their financial stability, the future of their family especially their children, and their wives' health most often. Where their children were concerned, their education remains a priority. One respondent, however, adds that there are also men who go for vasectomy so that they can play around without the fear of impregnating someone, especially if it is a mistress.

Men undergo vasectomy for several reasons. Table 7 presents the influences of others in men's decision to undergo vasectomy. The study participants claimed that their wives and health providers were the most instrumental in their decision to undergo vasectomy. According to most of the men, after they discussed their plans to undergo vasectomy with their wives, and obtained their support, the health providers were then largely significant in their final decisions. However, their in-laws and friends did not greatly affect their decision to have a vasectomy.

TABLE 7. Involvement of Others in Men's Decision to Have a Vasectomy

Persons Involved in the Decision	Responses (N = 44)	
	Yes	No
Wife	31 (70%)	11 (30%)
In-laws	3 (7%)	41 (93%)
Peers	7 (16%)	37 (84%)
Health providers	43 (98%)	1 (98%)
Multiple response		

A majority of the men involved their wives in their decision to have a vasectomy. Table 8 shows that there were those who first learned about no-scalpel vasectomy from their wives who had either attended an orientation, got hold of a flyer containing information about vasectomy, or had found a health provider who explained the procedure to them.

TABLE 8. Wives' Participation in Husbands' Decision to Have Vasectomy

Extent of participation (N = 34)	Number of Mentions
Wives cited reproductive health problems experienced	22
Husbands initiated discussion and wives gave support	16
Wives initiated discussion on vasectomy	11
Multiple response	

Both men and women seriously took into account their adverse experiences of contraceptive use, most notably contraceptive failure and the high cost of artificial methods. Other considerations included unpleasant experiences during pregnancy and childbirth, having already had more children than desired, the status of wife's health, and current financial standing. A wife said that:

*We both decided that he should undergo vasectomy. I supported him because I also wanted to stop getting pregnant so that we would not have additional children. I cannot use the IUD because I have hypertension. That is why vasectomy is a better option.*

The negative experiences of women with contraceptive use included palpitations, headaches, moodiness, loss of weight and the appearance of varicose veins for the pill users. An IUD user mentioned experiencing severe abdominal cramps. They also mentioned contraceptive failure for those who were using the rhythm method, withdrawal, and pills. Many spouses, especially the women, had contemplated on having a ligation but decided against it because

it was expensive, their health would not allow it because they had hypertension, one found out that there was something wrong with her fallopian tubes which would not qualify her for ligation, and post-operative recovery would be cumbersome because of heavy domestic work to attend to.

Some couples decided to choose vasectomy because of risks to health the wives experienced during pregnancy and delivery. One woman said she had a difficult pregnancy and ultimately a cesarian section during delivery, only to learn that the fetus had died before delivery. Some women's hypertension led to pre-eclampsia which could result in death during delivery. Miscarriage or spontaneous abortion is another reason cited. Difficult pregnancy and delivery lead to additional medical cost when a newborn needs incubation and a longer stay in the hospital after delivery.

A majority of those who opted for vasectomy already had three or more children and they had already reached if not exceeded their desired number of children. The decision to undergo vasectomy was triggered mainly by economic reasons – increasing prices of basic commodities, when at the same time they either do not have a steady source of income or they are earning less than what their family needs.

Table 9 shows that only two women did not consent to let their husbands go through vasectomy because they considered it sinful or because their live-in union was not stable.

TABLE 9. Wives Support to Husbands' Decision to Have a Vasectomy

Answers	N = 34	%
Yes	32	94
No	2	6
<b>Total</b>	<b>34</b>	<b>100</b>

Were they to separate later, the man would no longer be able to sire children to the woman he will eventually marry. A husband explained his decision to have a vasectomy without his wife's consent:

*My wife was not part of the decision-making process because she is against vasectomy since she considers it a sin. I thought of having a vasectomy when we already had eight children. But that time, I asked my wife to have a ligation but she did not like the idea because it is still a sin. When we already had 10 children, I solely decided to have vasectomy. We had fights because she was concerned that it might adversely affect my health. She even went to the security agency that I work for and demanded why she was not informed (the security agency asked the personnel of Sacred Heart Hospital for an orientation on no-scalpel vasectomy for their workers).*



The wife said:

*It was solely his decision. I did not support him because it is a mortal sin. We fought because I could not understand the reason why he had a vasectomy and he never answered. I really cried when I learned that he had a vasectomy. My mother advised me to just accept it and our priest told me to just pray for my husband because anyway, he is looking after the future of our family.*

There were husbands who did not include their wives in their decision because they had to take matters in their own hands, especially given difficult times when the future of the family was at stake. One husband decided to surprise his wife because at the onset, it was supposed to have been the wife who would go for ligation but they had decided against it when they learned that it has a number of side effects. Because of these supposed undesirable effects of ligation on his wife, he decided to have a vasectomy. His wife was very supportive upon learning that her husband had gotten a vasectomy.

Only very few of the men involved their in-laws and friends in their decision to undergo vasectomy. Those who were influenced by their in-laws bared that they were encouraged to undergo vasectomy because they brought up the facts of the economic crunch, that religion did not prohibit the practice of vasectomy, and that their in-law also had had a vasectomy. Friends positively influenced their decision to have a vasectomy when they decided to undergo the procedure together, thereby allaying fears and anxiety. Friends also assured its safety because of their own previous experiences, and they also said there was nothing wrong with it because it is not against their religion.

More than the wives who influenced the men to have a vasectomy, a majority of the study participants were greatly encouraged by the health providers who they considered to be experts knowledgeable about the procedure. The manner in which it was explained to them provided an assurance that it is safe, thereby easing their apprehensions. The examined visual aids used during discussion facilitated a clear understanding of what should be expected during and after vasectomy. They felt confident that nothing adverse would happen because they read or heard testimonies given by previously vasectomized clients regarding their experiences. It helped a lot that during counseling, instructions given to them were clear in terms of what to do and what to expect after the procedure to ensure that nothing unfavorable would happen. One client was even accompanied by a health provider to Sacred Heart Hospital prior to the scheduled date of the procedure to ensure that he knew where the venue would be.

### Misconceptions about Vasectomy

Although there are people who help men in deciding to have a vasectomy, they have to deal with a number of misconceptions surrounding it. Like other contraceptive methods, vasectomy is unpopular as a contraceptive choice because of erroneous beliefs associated with it. A common notion is that vasectomized men can no longer attain erection. This is a threat to their *pagkabalaki*. They think that they will no longer enjoy having sex or be able to have sex with their wives. This might result in their wives' philandering because they will no longer be sexually satisfied. Eventually, this will lead to their break-up. Some wives think that because vasectomized men can no longer impregnate, they will no longer have second thoughts about having extramarital affairs. One male study participant pointed out his wife's worry that he would become a "sex maniac" because he would be free from the fear of getting his wife pregnant, and would also have extramarital affairs to satisfy his lusts. One wife mentioned that men might worry about absolutely not being able to sire children even if, for example, the wife dies, he wants to have children in a second legitimate relationship.

Another misconception of vasectomy is that it is equivalent to castration. This leads to the opposite conclusion from one stated above, that vasectomized men will no longer be interested in sex. Moreover, it is believed that men will no longer release semen. Failure to release semen was interpreted by a friend of a study participant as a factor that would eventually result in prostate cancer. Thirdly, castration also means to some being inutile; a vasectomized male will be unable to attain erection.

Table 10 presents the reasons on the unpopularity of vasectomy among men as expressed by their wives. An erroneous and common belief is that, physically, vasectomy lessens a man's strength. He will no longer be able to do heavy work because it is thought to be risky for his health. Health risks erroneously mentioned included enlargement of the testes and death if there are complications. In the long run, men will become lazy because they are selective of the kind of work they do even to the extent of no longer participating in domestic work. They will end up unemployed, which would mean financial loss and a bleak future for the family.

TABLE 10. Reasons Cited by Wives on Vasectomy's Unpopularity Among Men

Reasons on Vasectomy's Unpopularity (N = 34)	Number of Mentions
Lessened sexual drive	13
Failure to have an erection	11
Affects physical strength	10
Will become a sex maniac	3
Will become gay	2
Against the teachings of the church	2
Multiple response	

Other than these physical aspects, there are also erroneous beliefs about psychological consequences such as moodiness and the tendency to get angry easily. These are attributed to lessened sex drive, leading to an adverse effect on a couple's sex life. The husbands would also have to contend with being teased by neighbors and friends who think they are not able to attain erections anymore and their sex lives have ended (because of the fear of being teased, a few men and their wives never mention that the husbands underwent vasectomy). Men might become gay in the end since sex with a woman is no longer enjoyable.

Religious beliefs play another major factor in the unpopularity of vasectomy because religious Filipinos, believe in what the Bible says which is "go out into the world and multiply." Vasectomy is equated with sin because it runs counter to what God wants couples to do.

Two men experienced failure in vasectomy. One admitted that he failed to have a sperm count before engaging in unprotected sex with his wife. One opted to have another while the second did not opt to have another procedure. The one who had a repeat vasectomy is not fully convinced of the effectiveness of vasectomy and is still using condoms especially since he did not have a sperm count yet after the second procedure. Their wives got pregnant less than a year after the procedure. Both failures led to domestic conflicts, because the wives were hoping that they would not get pregnant again and experience the hardships of another pregnancy. Moreover, the pregnancies caused the wives to feel ashamed for relatives and friends knew that the husbands had vasectomies. These people could not help but think that the pregnancies were a result of the wives' having extramarital affairs. One of the wives expressed her frustration:

*I regret that I suggested the procedure to my husband. They said that it is 98 percent effective. Perhaps we belong to the two percent ineffective. By August, he was supposed to have been vasectomized for one year but I got pregnant in June. My menstruation stopped. Had we not tried this method, I believe I would not have gotten pregnant since he was pretty good at using the calendar method. We were using it for two years and I did not get pregnant. Just when we decided to make it sure with vasectomy, I got pregnant. My experience was really frustrating and especially I felt ashamed in the presence of the doctor who performed it. I hid every time I saw him from a distance and if I could not avoid meeting him, I covered my belly. My husband did not have a sperm count after the procedure. People probably think that I had an extramarital affair although I know the truth. I definitely would not recommend it to men.*

Their husbands said that the possibility of failure sometimes affects their initiatives to encourage others to undergo vasectomy.

Majority of the study participants emphasize that discussion of the exacerbation of economic hardships faced by families with many children is an eye opener. The future of those having many children will be bleak because times are hard, especially for those receiving low wages and facing job loss. Having more than three children is already a financial burden. As one husband said:

*These are hard times. It would be not be good if we just keep on having children. One must be able to match his income with the needs of his family. Just look at our population growth and how the economy is ailing. There is no balance.*

The same husband echoed the concern of others regarding the harmful effects of continuous pregnancies on the women's health:

*Another thing, men must also be aware that family planning is not an exclusive responsibility of women. Men also have a role to play. If we talk about family planning, women are the ones hardest hit. Just look at the methods—pills, IUD, ligation. For us men, there is vasectomy which is easy, free, and safe. It is better if we choose vasectomy.*

The men who participated in the focus group discussions agreed that their sex life had improved because they no longer worry about unwanted pregnancy. They are able to clearly chart the futures of their families because they are no longer worried of another person whose needs they must meet.

Men mentioned that no-scalpel vasectomy is a better option compared to ligation because it is not a surgery, it is safe, and recovery is fast as long as one religiously follows the instructions given during post-counselling.

Another concern is the religious aspect. A husband said that vasectomy should not be seen as against the law of God, rather it is being responsible to wife and family as a whole. A husband disclosed:

*Well, for those who have not planned their future, they better start it now before it is too late. Men can be encouraged by explaining to them that it is not a sin. I am an avid student of the Bible and I could not find why the Catholic Church says that it is a sin.*

A wife who refused to have a ligation for religious reasons, felt bad when her husband had vasectomy but she was later enlightened after talking to a trusted priest who said that she should not worry because her husband is after all, looking at the future of their family.

## Sources of Information about Vasectomy

Table 11 presents men's sources of information on vasectomy. The decision to undergo vasectomy did not come about without first seeking information about the procedure.

TABLE 11. Sources of Information on Vasectomy

Sources of Information (N = 44)	Number of Mentions
Health provider	18
Newspaper	8
Streamer and flyers	6
Radio	5
Wife	5
Friend or neighbor	5
Television	3
Multiple response	

Men's sources of information included television (ABS-CBN's *TV Patrol*), radio (DYHP's radio program entitled, *Kini ang Akong Suliran [This is My Problem]* anchored by Dr. Lourdes Libres-Rosaroso, a newspaper (*SunStar Daily*), flyers, streamers, health providers, neighbors, in-laws and wives. A study participant narrated how he came to his decision:

*After I read in the newspaper about no-scalpel vasectomy, I immediately called up Sacred Heart Hospital. The person who answered the phone explained the procedure and family planning also. My wife and I first discussed it and I then decided to have the procedure. It did not take one week for me to decide.*

Majority of the men mentioned health providers as source of information and these include barangay health workers, medical interns and doctors from Sacred Heart Hospital who thoroughly explained the procedure, which made them understand that unlike, in the past, it is not a procedure that takes a long time, and it is safe. Its safety was very important to one of the study participants because a neighbor had an infection after he had the traditional vasectomy procedure. A person from Sacred Heart Hospital also gave an orientation in the workplace of a few of those who decided to undergo vasectomy which convinced them of its effectivity, safety, and practicability. He said:

*At the time when I still had four children, I already planned to have a vasectomy but it was going to be the traditional type, which required an operation. I had a*

*neighbor who suffered an infection after the procedure. I got scared then. Now, when the number of my children reached eight, there was somebody from the barangay health center who explained the new procedure. She also said that it is free, safe, and not painful. So, I then went to Sacred Heart Hospital to have a vasectomy.*

Neighbors were one source of information when they either heard or read about vasectomy and talked about it with a participant. These neighbors also encouraged them to attend an orientation on vasectomy in their barangay or in Sacred Heart Hospital. Five of the study participants underwent the procedure together with their neighbors, which was an advantage to them because they gave each other moral support.

Another source of information were wives, some of whom knew about vasectomy through various sources such as a doctor when they had their regular pre-natal check-ups, and health personnel who conducted orientations regarding the procedure. The wives discussed the information they got with their husbands and this encouraged the latter to have the procedure. A few husbands still sought other sources of information about the procedure such as attending an orientation, which they also knew about through their wives.

To synthesize, health providers and wives are the most influential in terms of the men's decisions to undergo vasectomy. Health providers are instrumental in correcting myths about vasectomy such as experiencing lessened sexual drive and failure to have an erection. It also aids in the decision-making process of men that massive information campaigns are done to counter myths surrounding vasectomy and to highlight its benefits.

### **Length of Time to Decide to Have Vasectomy**

Table 12 presents the length of time that men took on deciding to have vasectomy. The decision to undergo no-scalpel vasectomy did not take long for majority of participants. As shown, it did not take more than one month for them to decide after knowing about the procedure. There were a few who only took a day to decide to have the procedure. The urgency to have the decision was brought about by the number of children they already had at that time. Some had already reached their desired number while others had already exceeded the number of children they desired. They explained that having more children would mean additional financial difficulties in terms of raising them and meeting their needs. In fact, some were already facing problems in terms of answering the basic needs of their family. The concern for their wives' health also compelled them to have the procedure done immediately. They pointed out that too many pregnancies took a toll on their wives physical health. Some wives had already experienced high-risk pregnancies and difficult deliveries.

TABLE 12. Length of Time to Decide to Have Vasectomy

Length of Time to Decide	N = 44	%
Less than one month	39	89
One month	3	7
More than one month to six months	1	2
More than one year	1	2
<b>TOTAL</b>	<b>44</b>	<b>100</b>

After undergoing vasectomy, male study participants' perception of *pagkatalaki* did not change after undergoing the procedure. Husbands equated it with being responsible in terms of putting the needs of the family first. Such needs include providing food on the table and sending their children to school. Education of their children figures prominently in their priorities since this is one way to give them a chance in life.

This concern of husbands is also held by their wives. Beyond the issue of reproduction, women should be respected, not be subject to physical abuse, such as the physical abuse of continuous childbearing. In the same way, women must not be burdened with problems stemming from the vices of their men such as drinking and womanizing.

A number mentioned that their sex life has been significantly enhanced because they are no longer anxious and even fearful of another pregnancy. Their sex drives have improved. Now, they also have "peace of mind" and their domestic life has become better, whereas in the past, they had fights due to frequent unplanned pregnancies and failure to immediately respond to the basic needs of family members such as food and education expenses and other expenses related to the upkeep of the home. Fewer domestic spats have led to couples becoming closer. A husband shared his experience:

*It (vasectomy) makes me feel better now about myself. My sex life is good because there are no more apprehensions before the contact. No more worries of bearing another child.*

A wife shared how their sex life improved after the procedure:

*There were hurdles like we were advised not to have sex before completing 20 ejaculations but after that, there were really positive changes. No more worries of getting pregnant. In terms of stimulation, there were no changes. The operation in fact, made our sex life better—no worries, guilt feelings and apprehensions. You only need to sleep soundly after.*

Wives welcomed their husbands' choices to have a vasectomy because they have been spared from undergoing ligation which is perceived as more expensive, difficult and riskier compared to vasectomy. One wife was happy because her life was no longer endangered by difficult pregnancies. In the past, she experienced a complicated pregnancy, which eventually resulted in a stillbirth.

In-laws see the move to go through vasectomy optimistically because they no longer have to help to meet the food and schooling needs of the grandchildren, should more of them have come along. Their present grandchildren would have a better future when expenses would not have to go to the unborn siblings. They see the move as something to be proud of.

The friends of the participants were concerned about any adverse physical effects of vasectomy, such as no longer being able to attain an erection, which, they erroneously believed, would have an impact on their *pagkatalaki* because impotence would mean the end of a man's sex life. Failure to have erections was coupled with fears of doctors committing errors during the procedure. Eventually, some said, not being able to have an erection was also interpreted as a man becoming gay.

In brief, the perception of the vasectomized man's *pagkatalaki* remained positive and the same after vasectomy as before (Table 13). Vasectomy is seen as one of the acts of responsibility a male should take to ensure the well-being of his family.

TABLE 13. Post-Operative Perceptions on Men's masculinity (N = 44)

Perceptions	Wives	In-laws	Friends
Positive	43	43	40
Negative	0	0	3
NA (did not inform anyone)	1	1	1
<b>TOTAL</b>	<b>44</b>	<b>44</b>	<b>44</b>

## Discussion

Masculinity is defined as being a responsible husband and father. This means that a man should be able to meet the basic needs of his family – food, clothing, and education. He should be able to take part in raising the children and sharing in domestic work, devote time for his wife and support her not just financially but also emotionally. In terms of decision-making, the husband as well as the wife must jointly decide; if not, the wife should at least be consulted.



A man is expected to sire children but with this expectation comes the responsibility to take care of them. Part of this responsibility towards the children is his direct participation in family planning. Aside from siring children, physical strength is likewise attributed to being a man. Thus, he is expected to be hardworking not just in terms of having a steady source of income but also participating in domestic work.

The respondents were encouraged to undergo vasectomy most importantly due to economic reasons. They had been feeling the crunch of ensuring the future of their family members, especially their children. This would prove to be more difficult were another child to come along. In fact, a majority already reached or even exceeded their desired number of children.

The husbands' concern for the health of their wives, who in the past experienced various reproductive health problems during pregnancy and childbirth, made them choose vasectomy. Added to this was the constant pressure placed on women to regulate fertility by way of contraceptive methods.

Wives made a significant contribution to the decision of men to undergo vasectomy. Aside from providing husbands with information regarding the procedure, the extent of support given by the wives as expressed through their agreement on the decision of their husbands to have a vasectomy made a marked impact to go through with the procedure.

The encouragement given by health providers by thoroughly explaining the procedure and correcting myths and misconceptions and assuring them of its safety and reliability provided an extra push on the acceptance of husbands to have vasectomy.

In-laws and friends did not have a noteworthy influence on the decision of men to undergo vasectomy.

In the past, the men were not keen on undergoing vasectomy because of various misconceptions regarding the procedure. Foremost, there was the notion that they could no longer attain erection and even the confusion of it with castration which would greatly affect men's virility. This in turn, would affect their *pagkatalalaki*, their sexuality, strength, maleness and ability to provide. Psychological and religious factors also figured prominently in their decision to forego vasectomy in the past. All these were corrected through accurate information given by various reliable sources such as health care providers and vasectomized men.

Aside from the accurate information given, men as *padre de familia* (head of family), seriously took into account their responsibility as fathers to their children and husbands to their wives. They took matters into their own hands by making the decision to finally accept the procedure.

As cited previously, men equated masculinity with responsibility towards the family. This is the very reason that prompted men to have vasectomy without much delay from the time they received accurate information regarding the procedure. Thus, after having the procedure,

men felt that nothing actually changed with the way they perceived their masculinity. In fact, having vasectomy affirmed their concept of being a responsible man, husband, and father. Their wives also saw this in the same light.

## Conclusions

This study had outlined the reproductive choices of Cebuano men in favor of vasectomy and explained the concept of *pagkatalaki* that Cebuano men hold which created an impact on their choice. Cebuano married men understand the concept of *pagkatalaki* as being responsible in terms of meeting the basic needs of the family such as food and education. This is in line with the study of Avila and Wong (2001) in Cebu where husbands limit the number of their children because they want to spare them of economic deprivations. A related finding on masculinity by Whitehead (1997) in a study conducted in America is that masculinity involves two themes, namely, respectability and reputation. The former includes having economic power to provide for one's family. Men see that it is their primary duty to financially meet the needs of the family and this is also supported in the Philippines by studies done among Ilokanos by Pingol (2001) and Margold (2002).

Beyond being able to meet the economic needs of the family (Whitehead, 1997), men likewise see their role as actively participating in the nurturance of their children by spending "quality time" with them. Moreover, they should also be able to spend time with their wives despite the many responsibilities they have, which includes participation in domestic work. Doing household chores is also not an issue among Cebuano men, and this can be related to the way they were socialized in their childhood years when they were trained to do simple household chores. Mendez and Jocano (1979) likewise revealed that Tagalog boys were assigned chores which require physical strength, traveling some distance from the home, and minimal socio-emotional skills. Liwag, de la Cruz, and Macapagal (1998) found that boys assisted in child care when girls were not available.

Masculinity as perceived by both men and women includes physical characteristics although they are not considered significant in the decision to choose vasectomy. These physical characteristics include physical strength and the ability to sire children. An emphasis on physical strength was found in the present study and also by Liwag, de la Cruz and Macapagal (1998) because they found out where men are expected to do heavy work. There is another important expectation which is the ability of men to impregnate women which, in fact, Gilmore (1990) and Gutmann (1997) report in their studies among men in the circum-Mediterranean region. Their part of the "moral imperatives" of maleness involved impregnating one's wife aside from meeting the needs of dependents and protecting the family. In the Philippines, Tan (1989) believes that the siring of children is considered an essential achievement.

Men choose vasectomy despite the prevailing myths surrounding it. This phenomenon is discussed by Atkins and Jezowski (1983). In the first place, men are concerned for the future of the family especially that times are now economically difficult. In Margold (2002), an ideal husband is seen as someone who can secure his family's economic stability.

Secondly, the health status of their wives is threatened by risky pregnancies and deliveries. The threat of pregnancy to women's health is also a concern raised by Flavier (2002) who himself opted to have a vasectomy. For so long in these men's partnerships, women have been carrying the burden of reproduction, family planning, and using women-centered family planning methods. But the males have come to realize that, indeed, there is another choice centered on *them*. Landry and Ward (1995) learned in their research that men have come to realize that it is now their turn.

Thirdly, couples decided to stop having children because they had either reached or surpassed their desired number. This was likewise found by De Guzman (1990) in his study on vasectomy.

Men's decision to have vasectomy can be facilitated through the support extended by the wives and health care providers. Avila and Wong (2001) mentioned in their study that cooperation and understanding between partners make family planning succeed regardless of what method is used. Wives play a crucial role in the decision of many men because, foremost, they provide information about the procedure and reinforce men's resolve to have a vasectomy. Similarly, Ringheim (1993) divulges that vasectomy acceptors in Colombia point to their wives as initial sources of information and as the key persons to influence the decision. Additionally, in a successful program in Brazil initiated by PRO-PATER, which was studied by de Castro, et al. (1984), wives indeed influenced men's decisions. However, a study by de Guzman (1990) in the Philippines, found that the men in its sample never consulted their wives about their plan to be vasectomized.

The key role that health care providers play in the decision-making of men is in the area of educating them regarding the procedure and explaining the prevailing misconceptions on vasectomy. The advantages of vasectomy over other methods enable men to decide that it is the better choice especially compared to ligation which Landry and Ward (1995) also discovered. Vernon (1996) says that vasectomy is preferred because it is "simpler, easier, safer, quicker and most comfortable". Friends and in-laws do not have a significant impact because once men get the support of their wives through a joint decision, nothing else matters, not even the misconceptions or adverse attitudes of their male friends.

Finally, men still hold the same positive concepts of *pagkatalaki* after vasectomy as they had before, and it does make a big difference that men are now taking an active and direct participation in terms of family planning. This is a huge departure from the study done by UNFPA (2000) where strong male stereotype prevented men from sharing in sexual responsibility.

Despite the positive views men have of their *pagkakalalaki* before and after vasectomy, there remains a need to explore other concepts of *pagkakalalaki* especially from men who refuse to have vasectomy which remains unpopular compared to the other contraceptive methods available.

### Recommendations

In order to encourage vasectomy, the best way to counter existing misconceptions of vasectomy is to launch massive information drives using media and going to the barangays to ensure that many communities are covered by the campaign. During the information drive, reading materials describing the procedure and how to ensure its effectiveness are necessary. Facts should be presented to correct the usual misconceptions. Testimonials of the experiences of men who underwent vasectomy would encourage men. Wives also say that having couples share their experiences would go a long way to encourage men to have a vasectomy.

In the information campaigns to garner the participation of men in family planning, especially vasectomy, it is not enough that myths will be corrected and facts presented. Another convincing manner to get the support of men, based on this research and others, is stressing their responsibility towards their children and wives. The concept of responsibility hinges on securing the future of the family by being able to sire the number of children whose basic needs like food and education can be met under their current circumstances, and stopping there.

It is noteworthy that men are concerned to secure the economic welfare of the family. This means that they are tied to their jobs and may not have the opportunity to spare time for discussions on other matters or in other places. Efforts should be made to reach out to men in their workplaces through information, education, and communication campaigns. They would be a captive audience with an opportunity to closely interact with men who may have previously held concepts and misconceptions on vasectomy similar to their own.

In relation to the above recommendation, community gatherings of men and women need to be embedded in any such campaign plan since men who are at work for most of their day will prefer to stay at home during time off due to their participation in domestic chores. Community-based gatherings will not only enhance couple-centered decision making but will also improve male involvement in family planning through interaction with other men in the community. Worth mentioning that these discussions must be kept time-bound so that men can still have time for their families.

There is a need to involve men who have been previously vasectomized in the education campaigns in support of vasectomy. Their testimonies as to the nature of the procedure, its

success, and the joys they are currently experiencing can help other men realize that it is alright to submit one's self for vasectomy. This is also an effective way to dispel erroneous beliefs about vasectomy in relation to cultural conceptions of masculinity based on the actual experiences of previously vasectomized men.

Couple-centered information activities including pre- and post-counseling are key in terms of helping males to make a firm decision on family planning. Veering away from women-centered or male-centered only campaigns helps enhance greater participation in family planning. This is also a departure from the usual frame-of-mind of program planners and implementors that "men are the problem" when it comes to family planning. Additionally, there is a need to veer away from stereotyping men in terms of their participation in family planning simply because age-old concepts about their masculinity may be a hindrance in any program designed for them. For as seen in this study, this was not a problem for Cebuano vasectomy acceptors. Eventually, this will ease the burden of responsibility placed on women in terms of reproduction and fertility regulation because men will then take a proactive stance not only in family planning but the more politically correct and encompassing concept of responsible parenthood.

Health service providers need to graduate from the usual information dissemination approaches like focusing only on how the procedure will take place and clients' responsibilities after undergoing vasectomy. Instead, program planners must raise the discussion to a higher level that will include issues on gender, women's health, male participation, and family welfare.

It is therefore important that male involvement in family planning such as vasectomy must be adequately addressed in terms of promotion, delivery of direct services and increased participation of men themselves. Times have changed in terms of family planning and the opportunity for men to be involved is ripe.

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# Correlates of Induced Abortion in the Philippines

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## Abstract

**T**his article attempts to quantitatively separate the effects of several variables on induced abortion. These are demographic (age, number of live births, and marital status), socioeconomic (wealth index, education, and work status), cultural (religion examined in three ways – religious affiliation, importance of God in the respondent's life, and frequency of church service attendance), proximate (ever use of contraceptive method, ever forced to have sex with partner, and unintended pregnancy), knowledge (knowledge of abortion law in the Philippines), and attitudinal (what the woman thinks as more harmful for a woman's health, unwanted pregnancy or using modern and artificial contraceptives and the most important reason women in their community may resort to abortion, opinion on enumerated circumstances such as saving a woman from dying, pregnancy from rape and incest, protecting own health, psychological reasons, and being mentally retarded and who the woman thinks should decide whether a woman stops an unwanted pregnancy). Bivariate and multivariate logistic regression analyses of 4,163 sample of the National Survey of Women (NSW) have demonstrated that only five of the many variables examined remained prominent, arranged from the most to the least significant, in affecting induced abortion. The likelihood of resorting to abortion by women having unintended pregnancy is 10 times more than among women having no unintended pregnancy. The estimated odds of having had an induced abortion for women who think is 1.43 times more than among those who do not think that the abortion law should allow abortion of pregnancy caused by rape. Induced abortion is 41 percent less common among the never married than their married counterparts. The poor

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are 27 percent less likely than the non-poor to resort to induced abortion. If the woman had ever been forced to have sex with her partner, she was 1.29 times more than her counterpart who had never been forced to have sex with her partner to consider induced abortion as a recourse. There is then a need to address these strong determinants of induced abortion in the Philippines.

**Keywords:** induced abortion, unintended pregnancy, family planning, contraception

## Introduction

Our most recent publication on induced abortion in the Philippines has shown that unintended pregnancy is the root cause of abortion (Singh et al., 2006). All other related studies are consistent in demonstrating unintended pregnancy as the underlying and immediate cause of induced abortion (e.g., Bankole, Cabigon, 1996; Singh and Haas, 1998; Raymundo et al., 2002; Qiao and Suchindran, 2005; Bankole et al., 2006). Our latest published study based on the 2004 National Survey of Women (NSW) also reveals that among those who seek abortion, economic cost of raising a child, birth spacing or limiting family size, which is directly related to unmet need for family planning, and pregnancy resulting from forced sex, are their leading reasons. Family planning use especially of traditional methods and ever being forced to have sex with partner are other proximate causes of induced abortion available in the same survey. In addition to unintended pregnancy, these two variables are important program variables to be examined simultaneously with other independent variables to find out whether they persist to be strongly related to induced abortion experience.

Based on the 2004 National Survey of Women (NSW), our study also disclosed that among the Filipino women who admitted having had an abortion, majority are ever married, with at least three children, poor, Catholic and with at least some high school education. Note that these classifications were based on the total number of women who admitted having had an abortion through the sealed envelope and not on the total sample respondents. However, these findings need substantiation because they may reflect both a combination of the real importance of each of these variables on induced abortion and the obviously biased effect of the actually highly skewed distribution of Filipino women on each of these variables. For example, since the Roman Catholics in the country are of the same percentage, the 87 percent who are Roman Catholics among those who admitted having had an abortion may be interpreted as either a reflection of the large proportion of Roman Catholics in the country or a reality that the majority who are resorting to abortion are Roman Catholics. The same line of argument may hold true with the other variables given that the majority of women have at least three children with the most recent total fertility rate of 3.5 (National Statistics Office and ORC Macro, 2004) based on the 2003 National

Demographic Health Survey (NDHS), and that the majority of Filipinos are poor and are with high school education.

Moreover, other unexplored variables may emerge as major reasons to resort to abortion. One is the information on ever worked status. It would be helpful to discover whether those who ever worked have a greater tendency to resort to induced abortion relative to their counterparts who never worked. In an earlier study based on hospital cases (Raymundo et al., 2002), about 65 percent of the women with induced abortions were not working.

Another set of variables which may have some bearing on induced abortion behavior relates to knowledge and attitudes regarding reproductive health and abortion laws. For example, it may be worthwhile finding out whether those who are aware of the abortion law in the Philippines are less likely to have had an induced abortion because of the severity of penalty they are aware of. Qiao and Suchindran (2005) found out that in rural China and among minority nationalities, induced abortion was related to the requirements of family planning policy. The interesting question to unravel here is whether knowledge of the abortion law deters induced abortion. Furthermore, the 2004 NSW collected information on the most important reason women in their community may resort to induced abortion as well as whether or not the woman thinks the Philippine abortion law should allow abortion to several circumstances each read out to them by the interviewers (saving the mother's life, rape, incest, contraceptive failure, handicapped or abnormal baby, protection of mother's health, psychological reasons, inability to take care of the child, schooling interruption, unwanted pregnancy and mentally retarded mother). It could be insightful to find out which of these attitudes also matter in having had induced abortion.

Our latest published study also revealed that induced abortion is a shared decision with four in 10 women who attempt an abortion discuss the decision with their husband or partner. However, seven in 10 women report having had the final say in the decision to seek abortion. It is very important to discern whether shared decision of the couple remains important even if the other important variables are simultaneously considered.

In a nutshell, there is a need to estimate the net contribution of important programmatic variables on the likelihood of induced abortion to arrive at clearer insights as to identifying action-oriented strategies to reduce it. The main objective of this paper is to address this need. Specifically, it identifies which of the above emerging important demographic, socioeconomic, cultural and proximate characteristics remain important after taking into account the confounding effects of each of the other correlates under consideration. It also examines whether knowledge of abortion law and attitudinal factors (to be defined in greater detail in the succeeding section) are important correlates of induced abortion and which of them would persist even if unintended pregnancy as the underlying cause and other important confounding variables are held constant.

## Methods

The data for the analyses in this paper are obtained from the 2004 NSW conducted by the University of the Philippines Population Institute (UPPI) and Guttmacher Institute (Singh et al., 2006:10). This is a nationally and regionally representative survey of women 15-49 years old, irrespective of marital status.

A stratified multistage-stage sampling technique was used. The regions in the Philippines were grouped into nine domains namely: (1) National Capital Region, (2) Northern Luzon, (3) Central Luzon, (4) Southern Tagalog, (5) Bicol, (6) Western Visayas, (7) Central and Eastern Visayas, (8) ARMM, Western and Northern Mindanao, and (9) CARAGA, Southern and Central Mindanao. Urban and rural locales from the nine regional groups were selected. Within these locales, sample *barangays* (political unit) were then randomly chosen. Sample households in the selected *barangay* were chosen through systematic sampling and a qualified respondent in the chosen household was interviewed.

The sample size was computed at 95 percent confidence level (five percent level of significance). The initial estimate of the population variance was based on information from the 1997 Department of Health Annual Report where the rate of pregnancies with abortive outcome was estimated at 0.1. The relative precision was set at 10 percent of the estimated rate. The empirically estimated sample size was about 3,500. The actual sample size generated in the survey was 4,163.

## Variables

Table 1 presents the variables under consideration, their operationalization in the present study and the corresponding percentage distribution of the sample per category of a given variable.

The main variable of interest (dependent) is having or not having had an induced abortion based on those who responded to the questionnaire in sealed envelope. We reported earlier (Singh et al., 2006) that 15 percent of the 4,163 sample respondents had ever had an abortion. In the succeeding analysis, the considered category will be those who ever had an abortion and will be contrasted with those not having had an induced abortion (85 percent), as the reference.

TABLE 1. Percentage distribution of all women by variables under consideration, 2004 NSW

Variable	Percent	Number
<b>A. DEPENDENT VARIABLE</b>		
<i>1. Induced abortion</i>		
Ever had an abortion	15.0	624
Never had an abortion	85.0	3539
<b>B. INDEPENDENT VARIABLES</b>		
<i>1. Demographic</i>		
<b>Age</b>		
15-19	10.6	440
20-24	16.3	679
25-29	17.4	724
30-34	18.4	765
35-39	16.4	685
40-44	12.5	519
45-49	8.4	351
<b>Marital status</b>		
Single	16.7	695
Ever married/lived in	83.3	3468
<b>Children ever born</b>		
0-2	51.1	2128
3+	48.9	2035
<i>2. Socioeconomic</i>		
<b>Education</b>		
Elementary or below	26.9	1118
High school or vocational	51.4	2139
Colleges or over	21.8	906
<b>Wealth index quartile</b>		
Poor	70.4	2933
Non-poor	29.6	1230
<b>Work status</b>		
Never worked	69.2	2882
Ever worked	30.8	1281

Variable	Percent	Number
<b>3. Cultural</b>		
<b>Religion</b>		
Roman Catholic	85.9	3578
Others	14.1	585
<b>Importance of God to R's life</b>		
Rate lower than 10	10.4	431
Rate = 10 (very important)	89.6	3732
<b>Frequency of Church services attendance</b>		
Daily to once a week	51.9	2159
At least once a month or never	48.1	2004
<b>4. Proximate</b>		
<b>Ever use of contraceptive method</b>		
Never used	37.3	1552
Traditional	33.9	1413
Modern	28.8	1198
<b>Ever forced to have sex with partner</b>		
Ever been forced	24.3	1010
Never been forced	75.7	3153
<b>Unintended pregnancy</b>		
Ever had unwanted pregnancy	61.8	2572
Never had unwanted pregnancy	38.2	1591
<b>Total</b>	<b>100.0</b>	<b>4163</b>
<b>5. Knowledge of abortion law in the Philippines</b>		
Knows	60.6	2522
Does not know	39.4	1641
<b>6. Attitudinal</b>		
<b>Thinks as more harmful for a woman's health</b>		
Unwanted pregnancy	76.2	3171
Using modern and artificial contraceptives	23.8	992
<b>Thinks as the most important reason women in her community may resort to abortion</b>		
<b>Economic reasons</b>		
Yes	36.5	1518
No	63.5	2645

Variable	Percent	Number
Not married		
Yes	15.6	650
No	84.4	3513
Has achieved desired family size		
Yes	12.2	507
No	87.8	3656
<b>Thinks that the abortion law should allow a woman to end an unwanted pregnancy</b>		
To save her from dying		
Yes	59.8	2491
No	40.2	1672
When pregnancy is from rape		
Yes	17.9	745
No	82.1	3418
When pregnancy is from incest		
Yes	21.0	873
No	79.0	3290
To protect her own health		
Yes	32.1	1335
No	67.9	2828
For psychological reasons		
Yes	17.7	738
No	82.3	3425
If she is mentally retarded		
Yes	23.2	967
No	76.8	3196
<b>Who respondent thinks should decide whether a woman stops an unwanted pregnancy</b>		
Woman alone	50.3	2095
The couple together	33.0	1372
Husband/partners/others	16.7	696
<b>Total</b>	<b>100.0</b>	<b>4163</b>

Recall that in our earlier study (Singh et al., 2006:15), the 15 percent having had an abortion were classified by marital status (ever and never in a union), number of children (0-2 and equal to or greater than three), religion (Catholic and others), economic status (poor and non-poor obtained by classifying respondents into quartiles, based on their possession of certain amenities such as electricity, radio, television, gas or electric stove, refrigerator, electric fan, air conditioner, washing machine, indoor toilet, tap drinking water inside household, cellular telephone, telephone, bicycle, car, household helper or maid), and education (no high school and some high school). These variables will be re-considered in this paper with the total survey respondents as the base. Given their importance according to our latest work mentioned earlier, the thrust will be on finding out whether they remain influential to the occurrence of induced abortion when other important variables are simultaneously considered.

The independent variables are grouped as demographic, socioeconomic, cultural, proximate, knowledge, and attitudinal. The demographic characteristics of the 4,163 respondents are age of last birthday, marital status, and total number of live births. Our findings with the present paper amplify our findings in our study cited earlier. The distribution of the total sample under study by five-year age group is more or less the same except with the youngest and oldest age groups. One in six women are never married. There are slightly more women with less than two children (51 percent) than their counterparts with three or children. In the bivariate (Chi-square test) analysis, current age is examined in five-year age group but in the bivariate and multivariate logistic regressions, it is treated in its original level of measurement (quantitative).

The socioeconomic variables are wealth index (non-poor and poor as defined earlier), education in three categories (elementary or below, high school and college or over), and work status (ever and never worked). Five in 10 women are with high school education; close to seven in 10 women are poor and never worked.

Religion is the lone cultural variable re-examined. However, there are three indicators explored. First is religious affiliation (Roman Catholics versus others). A great majority (about 86 percent) reported themselves to be Catholics. Second is importance of God in the respondent's life. The question asked is "How important is God in your life? Please tell the degree of His importance by giving me a number between 1 and 10, where 1 means "Not at all" and 10 means "Very important." (Answer from 1 – 10). Nine in 10 gave a rate of 10. The third indicator is frequency of church service attendance in two categories (daily to once a week, and at least once a month or never). A little above half attend Church services daily to once a week. These second and third indicators reflect the attitude and behavior towards religion, respectively, which are no doubt better indicators than religious affiliation in the analysis of induced abortion.

The variables in the fourth set are proximate. They are ever use of contraceptive method (never used, used traditional methods and used modern methods), ever forced to have sex with partner (ever been forced and never been forced) and unintended pregnancy (ever had and never had based on both the individual questionnaire (v601 and v602) and the sealed envelope questionnaire (saq1 and saq5). Three in eight never used a contraceptive method, a third ever used traditional and two in seven women ever used a modern method. About a fourth claimed to have ever been forced to have sex with a partner. About 62 percent ever had unintended pregnancy as was already reported in our earlier study. It would be illuminating to find out how induced abortion varies by the categories of these proximate variables.

Knowledge of abortion law in the Philippines is the lone knowledge variable. Six in 10 women are aware that there is an abortion law in the Philippines.

The last set of variables examined relates to what the women think of several situations or conditions surrounding induced abortion. First is what the woman thinks as more harmful for a woman's health, unwanted pregnancy or using modern and artificial contraceptives. Most (76 percent) think unwanted pregnancy more harmful. Second pertains to what the women think as the most important reason women in their community may resort to abortion. Three reasons were cited by at least 10 percent of the sample: (1) economic (36 percent); (2) not married (around 16 percent); and (3) has achieved desired family size (12 percent). The third condition relates to the women's opinion on enumerated circumstances (as listed in the first section) the abortion law should allow a woman to end an unwanted pregnancy. Those conditions identified by at least 15 percent of the respondents are (1) to save a woman from dying (60 percent); (2) when pregnancy is from rape (18 percent); (3) when pregnancy is from incest (21 percent); (4) to protect her own health (32 percent); (5) for psychological reasons (18 percent); and (6) if a woman is mentally retarded (23 percent). The last condition is who the woman respondent thinks should decide whether a woman stops an unwanted pregnancy (woman alone, 50 percent; the couple together, 33 percent and husband/partner/others, 16.7 percent).

## Analysis

Bivariate and multivariate analyses are performed. There are three aims of the bivariate analyses. First is to examine the patterns of relationship between each of the hypothesized variables and induced abortion experience. Second is to determine which of the three indicators of religion is mostly related with having had an induced abortion. Third is to reduce the number of variables to be examined in the multivariate perspective given the very skewed distribution of cases by induced abortion experience. Examining many hypothesized variables with a highly skewed dependent variable is statistically problematic. Hence, it is helpful to



have an empirical basis of eliminating those that do not have a bearing on induced abortion experience to avoid many zero cells in the multivariate regressions.

Two statistical techniques are used in the bivariate analysis. One is cross-tabulating the dependent variable by each of the hypothesized correlates but just presenting the percentage who ever had an abortion by all of the hypothesized variables to address the first aim of the bivariate analysis and reflecting Chi-square values with p values equal to or less than .10 to address the second and third aims. The resulting crosstabulations reflect very uneven cell distributions owing to the highly skewed distribution by ever and never having had induced abortion. The Chi-square statistics is not robust in such kinds of cross tabulations. However, the bivariate logistic regression is robust in very uneven cell distributions with a dichotomous binary (0-1) dependent variable, e.g., induced abortion experience (1 if ever experienced, 0 otherwise) and in cases of serious violations of the linearity and homoscedasticity assumptions in linear probability models. Hence, it complements the Chi-square statistics in the examination but the main basis in establishing bivariate relationships between our dependent and independent variables.

In the multivariate part of the paper, the logistic regression model is used. In log odds form, the model is:

$$\text{Logit } P \text{ or } \log (P/(1 - P)) = b_0 + b_1X_1 + b_2X_2 + \dots + b_kX_k$$

where P=dependent variable (having had vs. not having had an induced abortion)

$X_1, X_2 \dots X_k$  are the demographic, socioeconomic, cultural, proximate, knowledge and attitudinal characteristics defined earlier.

Exponentiating the log odds parameters or logistic regression coefficients yields odds ratios which are measures of effect of the explanatory variables on the odds of having had an induced abortion. For quantitative variables, the odds ratio represents the multiplicative effect of a one-unit change in the independent variable in question on the odds of having had an abortion. For qualitative variables, the odds ratios are odds of the considered categories relative to the omitted or reference categories and they are the multiplicative effects of the explanatory factors. Any value less or more than unity means, respectively, lower or higher likelihood of having had an abortion at the category under consideration than in the omitted or reference category.

The variables that emerge significant in the bivariate analyses are taken simultaneously in the multivariate logistic regression model which is termed the full model. For parsimony and

simplicity, a simpler model and the final or optimal model will be estimated. For the simpler model, some of those not significant in the full model will not be included to reduce the number of variables in question. The criterion for inclusion in the simpler model will be discussed in the Results section. The optimal model includes only those that emerge significant in the simpler model and it will be the basis of determining the net effects of the significant correlates on having had an induced abortion.

## Results

### Bivariate analyses

Table 2 presents the percentage of women who reported on the sealed envelope questionnaire that they had ever had an abortion, the Chi-square values of the significant correlates and the results of bivariate logistic regressions in terms of logit coefficients, their corresponding standard errors and odds ratios by each of the hypothesized variables. Interestingly, both the Chi-square statistical test and the bivariate logistic regression consistently yield the same variables that are significantly related to having had an induced abortion.

Induced abortion occurs to all women regardless of age although most of those who had ever had abortion belong to the 30-34 age group. The Chi-square and bivariate logistic regression consistently reveal that age is significantly related to having had an induced abortion. The logit regression yields that when age increases by one unit, the estimated odds of having had an abortion increase by about two percent.

As already shown in our earlier report (Singh et al., 2006), the single women are less likely to experience induced abortion by about 55 percent compared to the ever married women. The likelihood of having had an abortion among women with less than three children is lower by 32 percent compared to that of women with three or more children. All three variables are significant and therefore are examined further in the multivariate analyses.

Among the socioeconomic characteristics under consideration, only economic status based on the wealth index quartile reveals some relationship with induced abortion experience ( $p < .10$  for both Chi-square and logistic regression coefficient). Strikingly however, those who are poor compared to the non-poor reveal lower percentage of having had an abortion (14 percent vs. 16 percent). Based on the logistic regression result, the likelihood of having had an abortion is lower by 14 percent if the woman is poor than if she is non-poor. Although the effects of education and work status are not significant, the pattern that is evident is that it is among those with high school education and those who ever worked that induced abortion tends to be a recourse. Together with economic status, education is still considered in the multivariate analyses because of its already established strong influence on fertility and family planning. Work status is not investigated further.

TABLE 2. Percentage distribution of women who ever had an abortion and bivariate logistic regression results by variables under consideration, 2004 NSW

Variable	Percent	Number	Logit coefficients	s.e.	Odds-Ratios
<b>Age†</b>			.017***	.005	1.017
15-19	8.4	440			
20-24	14.0	679			
25-29	14.5	724			
30,34	18.0	765			
35-39	15.8	685			
40,44	17.0	519			
45-49	15.1	351			
Chi-square (p-value)	25.279(.000)				
<b>Marital status</b>					
Single	8.1	695	-.803***	.147	.448
Ever married/lived in	16.4	3468			
Chi-square (p-value)	35.779(.000)				
<b>Children ever born</b>					
0-2	12.6	2128	-.385***	.088	.681
3+	17.5	2035			
Chi-square (p-value)	19.635(.000)				
<b>Education</b>					
Elementary or below	14.4	1118	-.039	.126	.961
High school or vocational	15.3	2139	.037	.111	1.038
College or over	14.9	906			
<b>Wealth index quartile</b>					
Poor	14.4	2933	-.156*	.093	.855
Non-poor <sup>16,41230</sup>					
Chi-square (p-value)	2.775(.096)				
<b>Work status</b>					
Never worked	14.5	2882			
Ever worked	16.0	1281	.114	.093	1.121
<b>Religion</b>					
Roman Catholic	15.1	3578	.097	.128	1.102
Others	14.0	585			
<b>Importance of God to R's life</b>					
Rate lower than 10	15.3	431			
Rate = 10 (very important)	15.0	3732			

Correlates of Induced Abortion in the Philippines

Variable	Percent	Number	Logit coefficients	s.e.	Odds-Ratios
<b>Frequency of Church services attendance</b>					
Daily to once a week	14.0	2159	-.159*	.087	.853
At least once a month	16.0	2004			
Chi-square (p-value)	3.254(.071)				
<b>Ever use of contraceptive method</b>					
Never used	15.7	1552			
Traditional	18.6	1413	.807***	.106	1.835
Modern	11.1	1198	.400***	.113	1.492
Chi-square (p-value)	34.292(.000)				
<b>Ever forced to have sex with partner</b>					
Ever been forced	20.3	1010	.508***	.094	1.661
Never been forced	13.3	3153			
Chi-square (p-value)	27.880(.000)				
<b>Unintended pregnancy</b>					
Ever had unwanted pregnancy	21.6	2572	2.384***	.164	10.850
Never had unwanted pregnancy	2.6	1591			
Chi-square (p-value)	379.006(.000)				
<b>Total</b>					
	<b>15.0</b>	<b>4163</b>			
Knows abortion law in the Philippines	15.7	2522	.156*	.090	1.169
Does not know abortion law in the Philippines	13.8	1641			
Chi-square (p-value)	2.909(.088)				
<b>Thinks as more harmful for a woman's health</b>					
Unwanted pregnancy	14.8	3171	-.057	.101	.945
Using modern and artificial contraceptives	15.5	992			
<b>Thinks as the most important reason women in her community may resort to abortion</b>					
<b>Economic reasons</b>					
Yes	17.4	1518	.293***	.088	1.341
No	13.6	2645			
Chi-square (p-value)	10.644(.001)				
<b>Not married</b>					
Yes	13.2	650	-.169	.125	.844
No	15.3	3513			

Variable	Percent	Number	Logit coefficients	s.e.	Odds-Ratios
Has achieved desired family size					
Yes	16.0	507	.090	.130	1.094
No	14.9	3656			
Thinks that the abortion law should allow a woman to end an unwanted pregnancy					
To save her from dying					
Yes	15.2	2491	.037	.0891	1.037
No	14.7	1672			
When pregnancy is from rape					
Yes	19.7	745	.416***	.104	1.516
No	14.0	3418			
Chi-square (p-value)	15.087(.000)				
When pregnancy is from incest					
Yes	18.7	873	.344***	.100	1.411
No	14.03290				
Chi-square (p-value)	11.242(.001)				
To protect her own health					
Yes	15.8	1335	.093	.092	1.097
No	14.6	2828			
For psychological reasons					
Yes	17.1	738	.185*	.1091	.204
No	14.5	3425			
Chi-square (p-value)	2.972(.003)				
If she is mentally retarded					
Yes	18.0	967	.294***	.098	1.342
No	14.1	3196			
Chi-square (p-value)	8.617(.003)				
Who respondent thinks should decide whether a woman stops an unwanted pregnancy					
Woman alone	13.1	2095	-.229*	.122	.795
The couple together	17.3	1372	.102	.1261	.107
Husband/partner/others	15.9	696			
Chi-square (p-value)	12.196(.002)				
<b>TOTAL</b>	<b>15.0</b>	<b>4163</b>			

† Treated as quantitative

\*\*\*p < .001 \*p < .10

Both the Chi-square and bivariate logistic regression demonstrate that religion is unimportant. Even the importance of God to the woman's life is not significantly related to having had an induced abortion. What appears to have some association ( $p=.067$ , logit coefficient and  $=.071$ , Chi-square) with induced abortion experience is frequency of church services attendance. Those who attend church activities daily or weekly are less likely to have ever experienced induced abortion. Being behavioral, frequency of church services attendance is the best indicator of the three measures under cultural and most likely compared to the other two to be associated with having had an induced abortion. It is the one further examined in the multivariate analyses.

As expected, all the three proximate variables are highly significantly related to having had an induced abortion. That unintended pregnancy is the root cause of induced abortion being a main finding in our earlier study and other independent studies is substantiated. Of all the hypothesized variables, it has the strongest association with induced abortion as seen in the Chi-square value of 379.006 and the odds ratio of 10.850. Based on the logistic regression outcome, among women who have had an unintended pregnancy, the odds of having had an abortion are about 11 times that of their counterparts with no unintended pregnancy. The probability of having had an abortion is 1.661 times if the woman has ever been forced to have sex with partner than if she has never been forced. Those who have ever used a contraceptive (modern or traditional) show higher estimated odds of experiencing abortion than those who never used. However, the likelihood of a woman who have ever used a traditional contraceptive to experience an abortion is about twice that of a woman who never used a contraceptive; it is greater than that of a modern contraceptive user (1.835 vs. 1.492). The multivariate analyses will discern the net influence of these programmatic variables.

The estimated odds of having had an abortion is higher among those who know that there is an abortion law in the Philippines by a factor of 1.169 than that among those who do not know. Of the three most important reasons women in their community may resort to abortion examined, only economic reason is significantly related to induced abortion experience. This further confirms what our earlier study has revealed that economic reason is one of the leading reasons to seek abortion. Because it is more an economic than attitudinal indicator, this attitudinal variable is no longer examined in the multivariate analyses. The wealth index quartile which is a characteristic attributed to the women under study is taken as the economic indicator.

Those who think that the abortion law should allow abortion if the pregnancy is a result of rape or incest, and the pregnant woman is not psychologically and mentally fit to continue the pregnancy display higher estimated odds of experiencing an abortion. The other circumstances under question (saving mother's lives and protection of one's own health) are not significantly related to an induced abortion recourse.

In terms of decision-making, those who think that it is a joint couple decision to effect abortion show higher likelihood of having had an abortion than those who think it is the husband/partner or others to decide. The significance is not very high though, especially if what is thought is the woman deciding alone.

It is then more insightful to examine the role of these emerging significant correlates when taken together. This is dealt with in the succeeding section.

### **Multivariate analyses**

Table 3 shows the odds-ratios derived from the regression coefficients from the three logistic regressions we performed in which the dependent variable is the log-odds of having had an induced abortion. Note that unintended pregnancy had to be considered in all models because of its obviously and highly significant effect on the likelihood of having had an induced abortion. Recall that these odds-ratios can be interpreted as the odds of having had an abortion for the quantitative variable (age) and for the category shown relative to the omitted category of each of the qualitative variables and controlling for unintended pregnancy and the other independent variables. Recall also that the first logistic regression is the full model considering all the emerging significant variables in the bivariate analyses plus education. Second is the simpler model containing fewer variables (i.e., those that are significant in the full model plus education and others as explained later). Third is the most parsimonious model, taking only those variables which are significant in the simpler model. This last model is our basis in interpreting the net effects of each variable emerging significant on the likelihood of having had an induced abortion.

According to the full model, not all of the variables observed in the bivariate relationships continue to exert a strong and significant influence on experiencing induced abortion. The demographic variables which lost their importance when other independent variables are held constant in the full model are age measured in its original form and children ever born in categorical form. Education, which was already found insignificant in the bivariate relationships, remains unimportant in the multivariate relationships. Frequency of church services attendance is also no longer significant.

Of the three proximate variables, ever use of contraception loses its significance. Knowledge of abortion law in the Philippines and all of the attitudinal variables except that relating to rape are no longer influential when other independent variables are taken simultaneously.

TABLE 3. Odds-Ratios from logistic regression coefficients for the effects of demographic, socioeconomic, cultural, knowledge and attitudinal characteristics on induced abortion, 2004 NSW

Characteristic	Full model	Simpler model	Optimal model
<b>Age</b>	1.002	1.002	
<b>Single (vs. married)</b>	.700 <sup>+</sup>	.705 <sup>+</sup>	.587**
<b>0-2 Children born (vs. 3 or more children born)</b>	.900	.903	
<b>Poor (vs. non-poor)</b>	.724**	.720**	.730**
<b>Education (vs. college or over)</b>			
Elementary	.975		
High school	.974		
<b>Daily or weekly attendance to Church services (vs. at least once a month)</b>	.871	.875	
<b>Ever used contraceptive (vs. never used)</b>			
Modern	1.064	1.069	
Traditional	1.031	1.040	
<b>Ever forced to have sex with partner (vs. never forced)</b>	1.287*	1.279*	1.292*
<b>Ever had unintended pregnancy (vs. never had)</b>	10.080***	10.105***	10.116***
<b>Knows abortion law in the Philippines (vs. does not know)</b>	1.085		
<b>Thinks abortion law to allow abortion when pregnancy is from rape (vs. does not think)</b>	1.346*	1.387*	1.435*
<b>Thinks abortion law to allow abortion when pregnancy is from incest (vs. does not think)</b>	1.116		
<b>Thinks abortion law to allow abortion for psychological reasons (vs. does not think)</b>	.847		
<b>Thinks abortion law to allow abortion if pregnant woman is mentally retarded (vs. does not think)</b>	1.202	1.142	



Characteristic	Full model	Simpler model	Optimal model
<b>Who respondent thinks should decide whether a woman stops an unintended pregnancy (vs. husband/partner/others)</b>			
Woman alone	.829	.830	
The couple together	1.156	1.151	
<b>Model Chi-Square (degrees of freedom)</b>	<b>439.3(18)***</b>	<b>436.6(13)***</b>	<b>420.1(5)***</b>
+p < .10   *p < .05   **p < .01   ***p < .001			

The simpler model includes all three demographic variables, all the significant variables in the full model, frequency of church attendance as the lone cultural variable, ever use of contraceptive method being a programmatic proximate variable, attitudinal variables related to mental retardation because of its large odds ratio (1.202) in the full model, and decision-making. We would like to be certain that each of the six sets of variables will be represented in addition to the ones emerging significant in the full model in the final choice of the optimal model. It may be possible that because of the close interaction of some variables for instance, with the set of attitudinal variables, omitting some of the unimportant ones may result into the significance of the variable they appear to be closely interacting with in statistical theory. Even with the reduced variables, the simpler model reveals a slight change in the odds ratios of all of the variables in the equation compared to the corresponding odds ratios in the more complex or full model. Specifically, children ever born, frequency of church attendance, ever use of contraceptive method, thinking that abortion law should allow a woman to end an unintended pregnancy if pregnant woman is mentally retarded and the perceived main decision-maker as to whether a woman stops an unintended pregnancy remain insignificant. Hence all of the insignificant variables in the full and simpler models are omitted in the running of the simplest or optimal model. In the end, only five variables are considered in this last model.

Three correlates – unintended pregnancy, economic status, and forced sex experience – consistently depict odds ratios virtually unchanged in magnitude or significance level in the full, simpler and optimal models (Table 4). This suggests that all three are weakly associated with each other as well as with the other variables so that their relationship to having had an induced abortion is not dependent on the other characteristics, and each maintains an independent effect on abortion experience.

TABLE 4. Patterns of effects in terms of odds ratio and significance level of the significant correlates in the three models, 2004 NSW

Correlate	Statistic/Model					
	Odds ratio			Significance level		
	Full model	Simpler model	Optimal model	Full model	Simpler model	Optimal model
Unintended pregnancy	10.080	10.105	10.116	.000	.000	.000
Economic status	.724	.720	.730	.003	.001	.002
Forced sex	1.287	1.279	1.292	.013	.015	.011
Rape	1.346	1.387	1.435	.029	.005	.001
Marital status	.700	.705	.587	.064	.069	.001

Rape, thought to be a reason for abortion in the law, being attitudinal and considered simultaneously with the other attitudinal variables in the full and simpler models, understandably depicts a drastic change in the magnitude or significance level of its effect once the other attitudinal variables are omitted in the equations (all but one in the simpler model and all in the optimal model). In fact, it outranks forced sex in the optimal model.

The significance level of marital status which is only at  $p < .10$  in the full and simpler models, strikingly increases to  $p < .01$  in the optimal model. The main reason is that it significantly interacts with children ever born (figures not shown). Marital status indicates some association with having had an abortion compared to children ever born which consistently remains unimportant in the full and simpler models. Given these results, marital status is the lone demographic variable in the optimal model. A striking result from omitting children ever born in the regression estimation is that marital status has the same level of significance as rape in the optimal model.

Ranking these five significant correlates in terms of strength in effects using the magnitude of odds ratio and significance level based on the fully reduced or optimal model yields, as expected, unintended pregnancy as the strongest with the odds ratio remaining as 10.1, significant at the 0 percent level. Clearly, removing the confounding effects of the other significant variables, the likelihood of resorting to abortion by women having unintended pregnancy is 10 times than among women having no unintended pregnancy. Indeed, this is another way of reiterating our previous conclusion that unintended pregnancy is the root cause of induced abortion.

Thinking that the abortion law should allow a woman to end an unintended pregnancy when pregnancy is from rape is second in importance with the odds ratio of 1.435, significant at the .1 percent level. Filipino women's personal opinion towards the gravity of rape as a

form of gender violence appears to have been reflected with the estimated odds of having had an induced abortion higher by 44 percent for women who think compared to those who do not think that the abortion law should allow abortion of pregnancy caused by rape, holding all other variables constant.

Marital status is the third with the odds ratio of .587, significant at the .1 percent level. Induced abortion is 41 percent less common among the never married than their married counterparts. This validates our earlier finding that the majority of women having abortions are married despite the fact that the present study takes the total sample while our earlier study on differentials by marital status, religion, number of children ever born, economic status, religious affiliation and education took only the women having had an abortion. Recall that considering only the women having had an abortion and classifying them according to each of these characteristics may indicate either a real difference in abortion experience between the categories of each of these characteristics or the actual distribution of cases in the same categories under consideration.

Economic status ranks fourth with the odds ratio persisting as .7 in all models and significant at the .2 percent level in the simplest model. As already evident with the preceding differential analysis portraying a lower percentage having an abortion among the poor (14 percent) than the non-poor (16 percent), the interpretation of the net effect of economic status is that compared to the non-poor, the poor are 27 percent less likely to have had an induced abortion. This is in contrast with our earlier finding that there are more poor (68 percent) than non-poor (32 percent) having had an abortion if only the total women having had an abortion is the base. In the present study, the total poor and non-poor, irrespective of abortion experience, are the bases in deriving the 14 and 16 percent, respectively. This difference in the base of calculating the percentages between our earlier and the present study needs to be taken into account. This illustrates the weakness of confining the differential analysis only to those having had an abortion because the differential observed may reflect either the real association of a given variable under consideration with another variable or the actual highly skewed distribution of Filipino women on that given variable. Recall that seven in 10 of the study women are poor. Our earlier study could then be taken more as a reflection of the real picture of more Filipino women as poor rather than a differential by induced abortion experience. The succeeding section elaborates this point.

Ranking last according to the effect on having had an abortion is ever been forced to have sex with partner with the resulting odds ratio of 1.292, significant at 1.1 percent level. The odds of having had an abortion are higher by a factor of 1.292 for women who have been forced to have sex with partner than the odds for women who have never been forced to have sex with partner. The succeeding section presents a more detailed explanation of this finding.

On the whole, out of the many variables hypothesized to have some association with having had an induced abortion, only five correlates are significant.

## Conclusions

The bivariate and multivariate analyses, which are based on the total sample of the 2004 NSW, demonstrate each of five correlates, arranged from first to last in terms of strength of effects based on the most parsimonious model – (1) ever had unintended pregnancy, (2) stand on rape as legal reason for a woman to end an unintended pregnancy, (3) marital status, (4) economic status, and (5) ever been forced to have sex with partner – exerting a distinct effect on experiencing an induced abortion.

Reiterating the need to address the majority of Filipino women having had unintended pregnancy through various ways is implied. Induced abortion mostly stems from unintended pregnancies and to reduce abortion implies the need to reduce unintended pregnancies. Our earlier studies (Perez et al., 1997; Singh et al., 2006) and other independent studies (e.g., Cabigon, 1996; Raymundo et al., 2002) have emphasized the same need. For instance, our most recent study (Singh et al., 2006), identified provision of the best educational and employment opportunities to women and sustained promotion and provision of effective modern contraceptives as crucial. The message from our present results is for all stakeholders to take unintended pregnancy and postabortion care as the top programmatic concerns to be given full attention. Linking emergency postabortion care with family planning and other reproductive health services is important if women are to avoid future unintended pregnancies and unsafe abortions (Salter, Johnston and Hengen, 1997: 12). Reducing unintended pregnancy will undoubtedly reduce induced abortion. The Population Reference Bureau (2000) policy implications are worth citing and they are as follows: (1) promote universal education and secondary-level education; (2) expand mass media and population education programs; (3) strengthen family planning efforts; and (4) provide employment and earning opportunities for women with basic education.

Rape as a form of sexual abuse which plays a very important role in the occurrence of induced abortion in the Philippines implies the need to revise the abortion law to add rape to mother's life being in danger as allowable abortion conditions. The abortion law is highly restrictive. The 1987 Constitution provides that "[the state] shall equally protect the life of the mother and the life of the unborn from conception." (Article 2, paragraph 2). Allowing abortion if the life or health of the mother is endangered is not explicit in the constitution but according to the annotation (Bernas, 1987) based on the deliberations of the Constitutional Commission that drafted the Philippine Constitution "[w]hen necessary to save the life of the mother, the life of the unborn may be sacrificed; but not when the purpose is only to spare

the mother from emotional suffering, for which other remedies should be sought, or to spare the child a life of poverty, which can be answered by welfare institutions.” Extending the allowed conditions for abortion to rape complements the Anti-Rape Law of 1997 (Act No. 8353), the Rape Victim Assistance and Protection Act of 1998 (Act No. 8505) and the Anti-Violence Against Women and Their Children Act of 2004.

That induced abortion is more common among married than single women has been the pattern observed over time in the Philippines based on the present study and other related studies (e.g., Cabigon, 1996; Raymundo et al., 2002; Singh et al., 2006). Given that marital status is more important than the number of children ever born and that both depends on the level of each other in its relation to induced abortion, marital status is taken as the final indicator to represent the number of children ever born. Most of the Filipino women resorting to induced abortion are married especially those who have already too many children. This is a reality that could not be ignored in addressing the quality of life of all. They are the sector portraying a high proportion of unmet need for effective modern contraceptives (Singh et al., 2006).

All other things being equal, the poor compared to the non-poor revealing a lower tendency to resort to induced abortion contrasts our earlier finding of a reverse pattern. This finding disputes the common argument that most of those having had an induced abortion are poor which we now contend an artifact caused by the fact that most of the Filipino women are poor (70 percent). Confining the differential analysis only to those who have had experience may bias results; hence, the need to substantiate with the same differential analysis but using the total sample. A supporting fact to the smaller likelihood of poor women relative to non-poor women that our earlier study discloses is that both the poor and the non-poor are concerned with the high cost of raising children, although the poor display larger percentages but a substantial percentage among the non-poor is evident. Moreover, of the non-poor who have had an abortion, 40 percent compared to their poor counterparts (30 percent) cited other reasons such as husband does not want pregnancy and all other non-economic reasons.

If the woman had ever been forced to have sex with a partner, she was more likely than her partner to consider induced abortion as a recourse. Forced sex is a reality among Filipino women and it is a significant cause of induced abortion. It is another form of sexual abuse that all relevant stakeholders have to address equally with unintended pregnancy through several ways. Apart from stricter implementation of the three laws cited earlier is for everyone to work together in changing the Filipino society from male dominance to gender equality, a change that is very challenging and difficult to achieve through diverse ways given the complexity of this phenomenon.

All of the five significant correlates can best explain induced abortion experience. Marital status represents age and number of children ever born. Economic status based on the wealth index quartile captures the role of education and work status. Work status did not emerge important in the analysis of abortion prevalence in Metro Manila (Cabigon, 1996). Religion or its two related indicators – importance of God to respondent's life, frequency of church services attendance – are unimportant once the five significant correlates are accounted for. Ever use of contraceptive method, knowledge of abortion law in the Philippines and thinking that abortion law should allow a woman to end an unwanted pregnancy when pregnancy is from incest, for psychological reasons and if pregnant woman is mentally retarded as well as the perceived main decision-maker as to whether a woman stops an unwanted pregnancy are no longer important because of the prominence of the five correlates just discussed.

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# Filipino Men's Condom Use During Gay Sex: Findings from the 2003 National Demographic and Health Survey

Eric Julian Manalastas\*

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**S**exual culture is the system of practices, meanings, knowledge, beliefs, and symbols that structure sexuality in different social contexts (Parker, Herdt & Carballo, 1991). With the recognition that sex is not simply a “natural” biological fact but a culturally informed experience shaped by subjective and material realities in which we live, the analysis of sexual culture has become a critical task for social scientists, especially those working in the area of sexual health.

One approach in the analysis of sexual culture is the empirical description of actual sexual practices in a population. Social, public norms surrounding sexuality may prescribe or proscribe certain forms of sexual expression, but whether these cultural ideals are translated into actual experiences is an empirical question. This paper analyzes baseline findings from a nationally representative dataset on one particular aspect of contemporary Filipino sexual culture: condom use or non-use during gay sex among Filipino men.

Previous empirical work on condom use as a sexual health behavior has focused only on Filipinos' experiences of heterosexual sex (e.g., Laguna, 2004; Manalastas, 2005). This report aims to expand our knowledge on Filipino condom use and contribute to a less heterocentric, more inclusive analysis of Filipino sexual health behaviors.

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## Gay Sex Among Filipino Men

Although sexuality is becoming an increasingly popular topic in Filipino social research, relatively less is known about aspects of our sexual culture related to gay identities and sexual behaviors, possibly due to widespread heterosexism in contemporary Filipino society (Manalastas & del Pilar, 2005; Sabo, 2000). In one cross-national survey of 33,590 respondents from 24 countries conducted by the International Social Survey Program, the Philippines was found to be the nation with the most extremely negative views about gay/lesbian sex and other forms of sex outside the context of heterosexual marriage (Widmer, Treas & Newcomb, 1999). In fact, Philippine data were set apart in their cluster analysis, because of a highly uniform negativity toward diverse sexual behaviors, which was not found in other countries.

Despite the cultural heteronormative ideals in the Philippines, however, some research reveals a slightly different empirical picture for gay sex among Filipino men. Findings from the third Young Adult Fertility and Sexuality Survey (YAFSS3), for example, show that 15.1 percent of young sexually active Filipino men report having had sex with other men (Silverio, 2004). One could argue that such survey results are likely to be underreported since the behavior of interest (i.e., sex between men) is negatively viewed and considered sexually transgressive (Catania, Gibson, Chitwood & Coates, 1990). So contrary to traditionalist, heteronormative views of Filipinos and their sexualities, Filipino men have and do engage in sex not solely with women, but with each other.

### Condom Use During Gay Sex: Beyond “Contraception”

Apart from the scholarly analysis of sexual culture, research into gay sex is also of particular interest to those working in the area of sexual health and HIV/AIDS. Although it is now widely acknowledged that the HIV pandemic is driven largely by heterosexual transmission and is not a “gay disease” as earlier claimed, men who have sex with other men remain to be one of four internationally recognized key populations that may be neglected and therefore at risk for HIV (UNAIDS, 2006).

In the Philippines, HIV has been largely heterosexually driven. As of September 2006, the majority of the reported 2,655 cases in the National HIV/AIDS Registry has been linked to male-female sex. However, almost a fifth of known HIV cases in the country ( $N = 497$ , or 18.7 percent) indicate “homosexual contact” as the mode of infection, making it the second leading means of HIV transmission among Filipinos. Given that the sexual transmission of HIV between women is extremely rare (CDC, 2006), gay sex appears to be a smaller yet significant locus for the spread of HIV in the context of Filipino sexual culture.

While the surest way to avoid the sexual transmission of HIV is to abstain from sex

altogether, a number of strategies have been identified to decrease sexually active men's risk for HIV. One is to engage in behaviors that are known to have a relatively lower probability of HIV transmission, for example, mutual masturbation or oral sex (versus anal intercourse). Another is *negotiated safety*, when partners in a steady relationship who are both HIV-negative agree to dispense with condoms during sex while negotiating an explicit safety agreement regarding their sexual practices both within and outside their relationship (Kippax et al., 1997). And finally, perhaps the most well-established strategy for HIV prevention among gay men is the use of condoms during sex.

Correct and consistent condom use is considered to be the single most efficient technology to reduce the transmission of HIV and other sexually transmitted infections (UNAIDS, 2004). When used correctly and consistently during gay sex, condoms provide both male partners a significant degree of protection against HIV and a spectrum of other STIs. Condom use is particularly important for men who engage in receptive anal intercourse, a behavior associated with a high risk of HIV infection (Center for HIV Information-UCSF, 2003).

The analysis of condom use during gay sex also highlights how some lay people and even researchers have come to view – and indeed, reify – the contraceptive feature of condoms. While biomedical research has indeed shown that condoms are highly effective in preventing unwanted pregnancy, it is incorrect to refer to condoms as contraceptives per se, without considering the specific sexual and relational contexts in which condoms are used (Cooper, Agocha & Powers, 1999). Because pregnancy prevention motivation is not a factor in the use of condoms during gay sex, the examination of condom use (or non-use) among men having sex with other men also serves as reminder for caution about falling into the trap of essentialist, reproduction-centered discourses in the analysis of sexuality.

## Problem

To what extent are Filipino men using condoms during gay sex? To explore this question, I present a secondary analysis of self-reported condom use among sexually active Filipino men using data from the 2003 National Demographic and Health Survey or NDHS (NSO & ORC Macro, 2004).

## Method

### Dataset

Data for analysis were obtained from the men's subset of the 2003 NDHS, an interview-based survey conducted by the National Statistics Office from June to September 2003, based on a stratified three-stage cluster sample of 13,914 households in the 17 administrative

regions of the Philippines. The original objective of the 2003 NDHS was the provision of national-level data on fertility trends, knowledge and utilization of contraceptives, condom use, HIV knowledge and attitudes, and family health. The Men's Questionnaire, which looked into background characteristics, sexual history, and other health-related matters, was administered to a final weighted sample of 4,766 Filipino men ages 15 to 54 years old (response rate of 95 percent) which was used in this analysis.

## Measures

Condom use was assessed using two yes-no self-report questions. The first was: "The first time you had sex with a man, was a condom used?" and the second was: "The last time you had sex with a man, was a condom used?" Respondents were also asked questions regarding HIV testing experiences, beliefs about condom efficacy, attitudes toward condoms, and heterosexual sex experiences. Because the structure of the dataset did not allow for the disaggregation of responses to the two sexual episode items (i.e., the data could not rule out the possibility that first vs. last gay sex were non-independent, overlapping events), the analysis focused on first gay sex experiences. Initial sexual experiences have been shown to be particularly salient in memory following a vividness bias (Abramson & Herdt, 1990) and can provide useful information about sexual activity of a population.

## Results

About five percent of the total respondents in the NDHS Men's sample reported having had at least one experience of sex with another man ( $N = 239$  out of 4,766). Excluding those who report no interpersonal sex experiences, this indicates that 6.8 percent of sexually active Filipino men have had sexual activity with another man. Compared to Filipino men with no reported gay sex experiences, those who had male-male sex tended to be younger, 40.7 percent of whom were in the 15 to 24 year-old age bracket (see Table 1). Focusing on the young adult population, examination of the data indicated that out of the 633 sexually active Filipino men ages 15 to 24 years in the NDHS sample, 15.5 percent ( $N = 98$ ) reported having had sex with another man. This corresponds with the 15.1 percent figure reported by YAFSS3.

Majority of Filipino men who had had gay sex also reported at least one experience of heterosexual sex (78.2 percent), and more than half were married to a woman at the time of the survey (55.5 percent), revealing that a number of heterosexually married Filipino men have had (at least one) past experience of male-male sex.

TABLE 1. Characteristics of Filipino Men Who Have Had Gay Sex (in %)

	Filipino Men Who Have Had Gay Sex <i>N</i> = 239	No Reported Gay Sex Experiences <i>N</i> = 4,527
<b>Age</b>		
15 to 24	40.7	35.5
25 to 34	33.2	25.7
35 to 44	17.8	22.7
45 to 54	8.3	16.2
<b>Education</b>		
No education/ Elementary	23.7	32.4
High school	57.4	47.2
College or above	18.9	20.3
<b>Wealth quintile index</b>		
Poorest	12.1	18.9
Poorer	21.9	19.6
Middle	23.7	20.7
Richer	24.2	19.9
Richest	18.1	21.0
<b>Religion</b>		
Roman Catholicism	83.7	83.0
Protestantism	6.4	4.0
Islam	0.7	4.1
Other	9.2	8.9
<b>Marital status</b>		
Single	33.3	41.7
Living with a woman	11.2	7.0
Married	55.5	51.3
<b>Ever had sex with a woman</b>	78.2	72.6
<b>Ever been tested for HIV</b>	4.4	3.8
<b>Beliefs and attitudes toward condoms</b>		
Condoms protect against disease.	87.7	77.4
Condoms diminish sexual pleasure.	66.4	54.3
Condoms are inconvenient to use.	59.2	49.8
Purchasing condoms is embarrassing.	50.6	37.9
Condoms can be reused.	6.6	5.0
<b>Knows where condoms can be obtained</b>	78.0	70.1

Source: 2003 NDHS

Further analysis of the young adult respondent data (see Table 2) also indicated that out of the 633 sexually active Filipinos ages 15 to 24 years in the NDHS sample, 9.6 percent ( $N = 61$ ) reported at least one heterosexual *and* one gay sex experience, and only 5.9 percent ( $N = 37$ ) reported having had *only* gay sex, by the time of the survey. These figures could point to some notable behavioral patterns in young Filipino male sexual culture: while a considerable number are not interpersonally sexually active (or at least do not report any kind of sexual activity with a partner), many are sexually experienced – most of whom have had sex with only women, some only with other men, and some with both women and men. Interestingly, the proportion of young Filipino men who have had sex with both a man and a woman was slightly greater than those who have had sex with a man only (9.6 percent versus 5.9 percent).

TABLE 2. Sexual Experiences of Young Filipino Men Aged 15 to 24

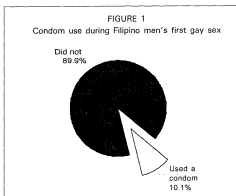
	Frequency	% of Total	% of Sexually Active Men
Had sex only with a woman*	535	31.4	84.5
Had sex with a woman* and with a man*	61	3.6	9.6
Had sex only with a man*	37	2.2	5.9
No reported sex	1,071	62.8	-
<b>TOTAL</b>	<b>1,704</b>	<b>100%</b>	<b>100%</b>

\* Responses indicate at least one sexual episode.

### Condom Use during Gay Sex

Although majority of Filipino men who had had gay sex believed that condoms provide protection against disease (87.7 percent) and many knew of a place where condoms could be obtained (78.0 percent), only 10.1 percent reported using a condom during their first sexual experience with another man (Figure 1). This indicates that about 9 out of 10 Filipino men with gay sex experience have done so unprotectedly. Similar levels of condom non-use of young Filipino men during heterosexual sex have been reported elsewhere (e.g., 86.2 percent, Laguna, 2004; 86.5 percent, Manalastas, 2005), highlighting converging evidence that majority of sexually active Filipino men, regardless of whether their partners were women or other men, do not appear to be protecting themselves during sex.

Secondary analysis of the 2003 NDHS Men's Dataset revealed a number of baseline patterns in sexual behaviors between men in contemporary Filipino sexual culture. Gay sex was a reported experience of a number of Filipino men, many of whom were relatively young, had had sexual activity with women as well, believed that condoms could protect against disease, and knew where condoms could be obtained. Nevertheless, very few Filipino men actually used protection during gay sex, as the extremely low level of condom use revealed.



## Discussion

As a sexual health behavior, the use of condoms has been studied from a number of perspectives, and different factors have been suggested to account for levels of condom use. Traditional theories based on rational decision-making models have, for example, emphasized individual information, risk perceptions, and attitudes toward condoms and condom use; however, various studies throughout the first two decades of the HIV/AIDS epidemic have demonstrated that HIV risk prevention knowledge, beliefs, and attitudes have little to do with the actual behaviors that would protect people from HIV infection, for example, condom use among gay men (e.g., Valdiserri et al., 1988; Kelly & Kalichman, 1998; Weatherburn & Hunt, 1991). Dynamics like relational contexts (casual versus regular sexual partnerships; Weatherburn & Hunt, 1991), trust and intimacy among partners (Adam, Sears & Schellenberg, 2000), social norms regarding protected sex (Kelly et al., 1995), drug and alcohol use prior to sexual activity (Stall, Coates & Hoff, 1988; Kelly & Kalichman, 1998), constructions of masculinity (Halkitis & Parsons, 2003), and social meanings ascribed to condomless sex (Ridge, 2004) present themselves as important factors in understanding and addressing condom use among men.

### "Gay Sex" and Other Caveats

A number of limitations in this secondary analysis are noteworthy. First, in relation to the problem of defining and operationalizing "gay sex" in the 2003 NDHS, male respondents were asked to report on their experiences of having "sex with another man." It is unclear exactly what specific behaviors may or may not be understood to fall under this rather

imprecise category. In contrast, sexuality researchers as early as the 1980s have made and incorporated distinctions among different forms of sex between men into their assessment of sexual behaviors (for example, separate items for receptive versus insertive anal intercourse; see Valdiserri et al., 1988). In one recent study, Vincke and others (2001) used cluster analysis listing 25 different possible behaviors that could be included in the category of gay sex – including insertive anal intercourse (IAI), receptive anal intercourse (RAI), partner masturbation (passive, active, or mutual), fellatio (insertive or receptive), interfemoral sex, and rimming, among others. This is not a trivial issue, for at least two reasons. First, some behaviors may carry different symbolic weight (for example, anal sex is associated with various meanings like masculinity, excitement, and even higher trust and love; Ridge, 2004) and could be more prototypically represented as “sex” by respondents (e.g., anal intercourse may be considered to be gay sex, but partner masturbation may not be). Second, from a biomedical, health perspective, some behaviors are known to be more high-risk than others. For example, anal intercourse (condomless RAI, particularly) is considered to have higher probabilities of HIV transmission, compared to other behaviors like oral sex and rimming, which are known to be “safer” (Center for HIV Information-UCSF, 2003).

A second caveat relates to the distinction between sexual behavior and sexual orientation and identity. Data limited to sexual behaviors do not inform us about the complexities of individual people’s sexual identities and orientations. Any conclusions that respondents are in and of themselves “gay”, “bisexual”, or “heterosexual” individuals based solely on self-reports on one sexual episode are extremely problematic. Such inferences assume a perfect orderly fit between behaviors and orientations, an assumption not supported by empirical evidence (e.g., Lee, 2002; Tan, 1994, 1998). Ideally, sexuality researchers, especially those interested in social aspects of HIV, should collect data on both sexual behaviors and sexual identities, not limiting ourselves to one or the other (Young & Meyer, 2005). Thus, in the present dataset, we are able to explore male-male sexual behaviors but cannot make any definitive statements about sexual identities and orientations of Filipino men, a task left to future research.

Additional points for further work include the improvement of behavioral assessment and the investigation of the social dynamics of condom use in the context of Filipino sexual culture. Single-episode measures (i.e., those that look into first or most recent sexual activity) should be expanded so that we have better information about *patterns* of sexual behaviors, not just isolated “slices” of behavior. After all, it is correct and *consistent* condom use that protects against HIV transmission.

Likewise, systematic inquiry into the social meanings, contexts, and motivations behind sexual health behaviors like condom use will provide us with better insights into Filipino sexuality. In the case of condomless gay sex, for example, more in-depth study of intentions to use or dispense with condoms can answer the question of whether this trend among

Filipino men can be framed as “barebacking” – the deliberate engagement in unprotected anal sex, which has been recently documented in many contemporary gay communities worldwide (Halkitis & Parsons, 2003; Ridge, 2004).

Finally, the relational context of condom use may prove to be a particularly important question. Filipino men have been shown to be less likely to use condoms when having heterosexual sex in steady partnerships (i.e., with spouses and cohabiting partners) compared to casual relational contexts (Manalastas, 2005), a pattern that has also been found among some gay men elsewhere (Weatherburn & Hunt, 1991). Whether this is also true for Filipino men during gay sex cannot be answered by the 2003 NDHS dataset (which only probed respondents about sexual partnership types for sex with women, but not for sex with men), but should be an interesting avenue for further research, especially considering that a notable proportion of Filipino men who have had gay sex are apparently married or enter other forms of heterosexual unions (an issue which gives rise to a number of issues in terms of HIV prevention; see Kalichman et al., 1998).

These recommendations, which are in line with the basic task of analyzing the diversity within Filipino sexual culture, its many nuances and complexities, will provide us a wider, more inclusive knowledge base for more effective interventions in the area of sexual health and HIV prevention (Kelly & Kalichman, 1995).



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# Population and Environment: Of *Doomsayers* and *Truth Tellers*

T. Abrajano\*

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## The Assyrian Tablet

*"The Earth is degenerating today. Bribery and corruption abound. Children no longer obey their parents, every man wants to write a book, and it is evident that the end of the world is fast approaching."*

— Assyrian Tablet, c. 2800 BC

**T**here are several reasons why I decided to open up my discussion on population and environment with the forgoing passage from an Assyrian Tablet. First, it is clear that we are not the first generation to contemplate our planet's eventual demise. Doom saying is an old business. Indeed it can be argued that part of the reason that we are still here discussing the issues of population and environment is that previous venerable prognosticators have made predictions that were eventually proven to be inaccurate. In 1798, the Reverend Thomas R. Malthus forecasted that the world's population will be limited by food shortages. In 1960, Paul R. Ehrlich noted that "The battle to feed humanity is over. In the 1970s the world will undergo famines - hundreds of millions of people are going to starve to death" and that up to four billion people would die during the 1980s. Some would contend that our inability to make accurate predictions of the future means that discussion of the type we are having today is pointless. Of course, none of us would be here today if we thought that this is the case.

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But discussions of impending doom sell tickets. Doomsayers fascinate and interest the public and that is all the media need to know. I recall the recent hoopla and uproar caused by a speech delivered by former Vice President Al Gore here in the Philippines (February, 2006) (also see, *An Inconvenient Truth*). The banner headline of the *Philippine Daily Inquirer* on the speech reads: “Gore: Earth is now at risk, let’s save it, 2M need relocation if Manila Bay overflows”. Visions of fleeing people from a great deluge reminiscent of the flood of Gilgamesh and Noah’s flood played in the minds of many. Some say it was a credible warning from one who had dealt with the major issues associated with global warming at the highest levels. Some, including a number of scientists from the University of the Philippines, reacted with disgust. “Here we go again,” they said, a foreign celebrity bringing in the ‘hype’ and the country’s leaders buying it hook, line and sinker, while our government constantly ignores more realistic predictions on flooding and other hazards in the Philippines.

On a grander scale, the Intergovernmental Panel on Climate Change (IPCC), the world’s leading assembly of experts on climate change and impact, has been accused of doom saying on a global scale. Emerging at the nexus of legitimate criticisms and political attacks on the IPCC Report is a 515-page account of the real state of the world by Danish statistician Bjorn Lomborg (*The Skeptical Environmentalist: Measuring the Real State of the World*). In his book, Lomborg contends that the world’s global temperature will increase much less than maximum IPCC estimates and the cost of the impact is far outweighed by the proposed cost of mitigation. Many others have advanced similar positions, hence the debate on the future impacts of global warming continues unabated, and the Kyoto Protocol remains to this day a hollow document.

Another reason that I lifted the above Assyrian tablet quote is that it conveys a sense that confusion is very much at the core of every doomsday claim. Discussions of population and environment are prone to such uncertainty because when people’s lives, personal beliefs and livelihoods are affected, there is little space for objectivity and a gigantic hallway for biased perceptions from all involved, scientists included. The current debate on global warming and sea-level rise has reputable scientists on both sides. It doesn’t take much math to figure out that a big fraction of those involved in these discussions would be wrong. The Earth’s terrestrial, oceanic and atmospheric systems are complex systems part or whole, so it is not surprising that even very good scientists could disagree. Add to that the socio-political dimension, and it is not hard to imagine how disagreements can arise even from well-meaning individuals. How can humankind look at this problem the same way if there are different levels of responsibility for causality (e.g., disparity of past and present green house inputs) and drastic differences in the resources and means available for each in mitigating possible impacts (e.g., developed versus developing economies)?

Yet, there are mistakes and there are “mistakes”. All good scientific work begins with a hypothesis that could either be right or wrong. Errors in the scientific methods employed or

honest misconception of limits and uncertainties of data could lead to errors of conclusion. These are all parts of the normal business of science. What has alarmed a great many including myself, however, are "deliberate mistakes" driven by agenda beyond the normal realm of the scientific process. A popular writer, Michael Crichton, recently suggested that science has been corrupted, and scientists have become another form of raw political power "tricked out on special claims of objectivity." In this way, Crichton warns that science may soon become no better than any other human undertaking. But here, one has to make a distinction between science and the practitioners of science. Scientists are humans who, indeed, can be corrupted. But science itself is the method to the madness of the world around us, and I submit that it will continue to be the one reliable tool needed to address environmental issues facing humanity. I hope this digression in 'the essence of science' did not come across as a tangential issue to our discussions of population and environment. It is a crucial point that has to be brought to the surface, as we contemplate translating scientific observations and inferences to useful policies. Scientists are fallible, but the scientific process must continue to play a part in devising the necessary answers. The bad news is that scientific charlatans are still out there on the loose; the good news is "In the long run, it is impossible to stand in the way of the exploration of truth. Someone will learn, somewhere, sometime" (Philip Handler, President of the National Academy of Sciences, 1969-1981).

### Earth On The Brink?

So, is Earth on the brink? The Assyrian tablet quoted earlier, and apparently former Vice President Gore, suggest that the Earth is on the brink of destruction. Credible television documentaries, a hoard of old and recent movies and very reputable journals and magazines have said as much. As an Earth scientist, keenly aware of 4.5 billion years of sometimes tumultuous record of Earth's existence, let me assure you at the outset that the Earth is not nearly on the brink of destruction. This planet was born of and shaped by violent events in planetary history. It has seen extremes of hot and cold easily beyond those contemplated by the most dire predictions global climate models. Earth's history was punctuated by planetary collisions, bolide impacts, massive volcanic eruptions and global mass extinctions. Yet, the total biomass has grown and diversified with time. Members of the domain bacteria and archaea have been around for billions of years and now comfortably thrive in the coldest ice, the saltiest seas, the warmest hot springs, and deep beneath the ground. This planet and the resilient life on it will survive as they have always done so in the past, in much the same way that Ecclesiastes (1:4) has proclaimed, "One generation passes away, and another generation comes; but the earth abides forever...". Stephen Jay Gould (*The Golden Rule – A Proper Scale for Our Environmental Crisis*) points out that human impact on this planet is indeed vastly overrated. Certainly, the sum total of what we do has the potential to challenge humanity's

existence, but that is a far cry from the destruction of Earth and life on it. Global warming and the litany of other environmental issues facing us threaten not the Earth itself, but the quality of human existence on it. Environmental and population stress leads to greater and greater exposure of humans to risks because, as Gould best puts it, "Humans ought to treat nature as they would want to be treated by nature" (i.e., the Golden Rule).

Even granting that the Earth is not on the brink of destruction, however, there are reasons to think that these are special times. The predictions of Malthus and Ehrlich on the impact of growing populations were certainly off in timing, but the jury is out on the eventual outcome. It is evident that the failure of their predictions on the extent and impact of population growth came about because they failed to take full account of human adaptability and ingenuity. The way humanity has avoided or postponed the predictions of great famine is to improve food production technology and expand arable land. This meant shrinking natural ecological systems by expanding agriculture, increasing the use of fertilizers, pesticides, herbicides and genetically-engineered crops to improve yields, growing more and more domesticated animals at the expense of the world's grasslands and forests, and encroaching and exploiting some of the world's most sensitive marine and terrestrial ecosystems and seats of major biodiversity. Ehrlich and Ehrlich described it as "turning the Earth into a giant human feedlot". But what about the world's oceans and atmosphere? About two centuries ago, Lord Byron (1788-1824) remarked "Roll on, deep and dark blue ocean, roll ... Man marks the earth with ruin, but his control stops with the shore." Oh, how sweet the past, when no one was noticing the large-scale perturbations that humans can make. But ignorance isn't bliss. Alas, the finiteness of the oceans has caught up with us as the cod stock of the Northwest Atlantic collapsed towards the end of the millennium, and fisheries throughout the world are failing today because of over-fishing. The finiteness of the atmosphere can't be more clearly demonstrated by the colossal holes in the ozone layer of the stratosphere and unabated concentration increases in green house and noxious gases in the lower atmosphere. El Nino and La Niña frequency and intensity may have likewise been influenced by human activity. Malthus and Ehrlich may have failed to take full account of human adaptability and ingenuity, but let us also not make the mistake of underestimating the scale of human's destructive impact.

But that's not all, increasing human population, especially in developing countries, means that human dwellings must encroach land and coastal environments that may be at risk from either natural or human-induced hazards. Examples of this tragedy are fresh in the minds of Filipinos, especially the residents of St. Bernard, Southern Leyte. People throughout the world that inhabit natural river floodplains and artificially propped up deltas (e.g., New Orleans) are at risk. The combination of increasing environmental stress and greater demand for basic necessities of food and drinking water also has led to human-induced disasters of food poisoning, drinking water contamination by chemicals and pathogens, and spread of

diseases. Increasing population and increasing environmental hazards are not that difficult to connect. Thus, humanity may have escaped the dire predictions of doomsayers past, but at what cost? Did we prove them wrong or did we just buy ourselves some time?

### Human Carrying Capacity of the Earth: Myths and Realities

How many people can the Earth sustain indefinitely? Ecologists define "carrying capacity" as "the population of a given species that can be supported indefinitely in a defined habitat without permanently damaging the ecosystem upon which it is dependent". Clearly, this question is difficult enough to answer for individual habitats, given that the environmental impact of organisms on their surrounding depends not only on their number but also on the manner that the organisms interact with their environments. If we cannot comfortably do it for individual ecosystems, how can we do it for the whole Earth? But there are certain useful metrics for what the Earth can physically provide. For example, humans presently appropriate anywhere from 10 to 50 percent of the annual net primary production from terrestrial vegetation (Rojstaczer et al., *Science*, 2001), with Stanford biologist Peter Vitousek putting his best estimate at 38.8 percent. This number is staggering even for those who might insist the Earth's ability to provide is limitless. The fact we will likely see upwards of three billion additional humans on the planet by the middle of this century and the land, soil and water resources will continue to be strained to support additional production (e.g., surface soil losses, salt build up, water supply requirements of agriculture, chemical input to land and water) stoke lingering Malthusian concerns. Recent events in the continent of Africa may have political components to it (e.g., failure to bring aid to starving people), but the underlying problem of the biophysical limits of the land should not be underemphasized.

Taking a different approach, we could ask what amount of resources each individual on the planet need to go on with our business as usual. When put in terms of acreage of land needed to support an individual that follows a specific life style, we can then speak of his/her ecological footprint. The latter, it turned out, may be an easier estimate to make: the total useful land space on Earth and the total number of people means there are only between 1.5 to 2 hectares available per capita to draw sustenance from (~1.7 hectares is used as a benchmark); by this measure the U.S. lifestyle requiring ~10.3 ha/capita is clearly over consuming and the people of Bangladesh who require ~0.5 ha/capita is under consuming at the opposite end of the spectrum (<http://www.ecouncil.ac.cr/tio/focus/report/english/footprint/>). Note that the Philippines has an estimated ecological footprint of 1.5 ha/capita. Of course, these estimates carry a healthy dose of uncertainty, yet the overall picture is revealing. Affluent lifestyles need larger and larger acreage of land to sustain.

Hardin (*Science*, 1968) in *Tragedy of the Commons* pointed out that the only way to sustain our lifestyle is for population to stop growing. Human existence needs a finite resource in a



finite Earth. If another three billion people were to be added to the planet by the middle of this century, then the finite resource available for everyone must be reduced by about a third. If affluent nations sustain their lifestyles in the same scenario, then the world's poorest nations must proportionately accommodate even more reduced resources per capita. Human ingenuity may yet improve the Earth's ability to produce food, but even this is unlikely to sustain future population growth (Pimentel et al, AAAS, 1996). The last three decades have seen increased food production upwards of 20 percent, yet close to a billion people worldwide still go hungry each day. Furthermore, as human ingenuity and adaptability pushes the limits of food production and provision of other needs (e.g., energy, drinking water, clothing, habitation), then the finite environment must sustain the required additional stress. If affluent regions of the world can escape the perils of such environmental impact (e.g., through stricter enforcement of environmental regulations, waste trading), then the rest of the world will have to take on disproportionately greater risks from environmental degradation. Thus, Hardin (1968) correctly concludes, there is no technical solution to the problem of global sustainability. The answer must also include reforming human attitudes and behavior.

### The Philippines Context

Within the Philippine context, the increasing population requires resources of food, water, jobs, dwelling and waste disposal. Whereas the lifestyle of Filipinos is sustainable by world standards (i.e., ecological footprint < 1.7 ha/capita), our immediate environment is degrading at a non-sustainable rate. This apparent paradox can be reconciled if we take two considerations into account: (1) agriculture, mining, forestry and other industries in the Philippines impose on the local environment yet a large part of its production supports lifestyles of people elsewhere, and (2) national ecological footprint estimates average the collective lifestyles of whole nations, yet a wide range of lifestyles and behavior exists within each country including the Philippines. With respect to the first point, it is demonstrable that the Philippines and many other poor countries are net importers of "environmental degradation". Such importation can be direct such as the disposal and "reprocessing" of developed countries' waste in willing (for the right price) developing countries. Indirect effects span the range of local environmental degradation to support other countries' appetite for food (e.g., marine produce and agriculture), leisure (e.g., exotic plant and animal trade) or raw materials (e.g., mining). With respect to the second point, disadvantaged regions and neighborhoods within the country likewise are importers of "environmental degradation" relative to their wealthier counterparts. Such disparity can come in the form of selective siting disposal sites, transportation depot, toxic-emitting factories, etc. in poorer neighborhoods, all captured in the phrase "environmental injustice". Rich and poor (both countries and people) indeed live in "different worlds". But even that has limits. The ability

of various Earth compartments' (e.g., atmosphere, surface and groundwater, ocean) to absorb pollution will eventually be approached, and it will be increasingly difficult even for the privileged to escape wholesale environmental impact.

In order to provide the basic needs of growing populations in the Philippines and abroad, more and more Filipinos, especially its poorest, will be exposed to greater and greater risks, both man-made and natural, in the future. What are these major risks?

- Too many people, too much garbage, and no plan. Solid municipal wastes are overwhelming existing non-sustainable disposal sites, and there is no agreed strategy for waste reduction, waste disposal and impact mitigation. Filipinos annually produce upwards of eight million tons of garbage nationwide, with unlined open waste dumps being the primary disposal option. The largest per-capita producers of municipal waste in the world are the Americans who produce upwards of 230 million metric tons of garbage every year (2003 figure). In contrast to the Philippine dilemma, the U.S. has a clear, if uncomfortable, strategy that includes 72 million tons removed from the waste stream by recycling, 0.1 million metric tons reduced by incineration, and the remainder disposed of using lined and regulated/monitored landfills. So, the good news is Filipinos produce only about 0.5 lbs to Americans 4.0 lbs of garbage per capita. The bad news is the Philippines does not have a workable waste reduction program, our open dumps expose the population to greater health risk and physical hazard, and the Philippine land area is a factor of 30 smaller than the U.S. The "economic analysis" of waste reduction and disposal cost should not end with the cost of the waste strategy alone, but must factor in the cost savings of reducing the long term beneficial impact on human health and quality of life for citizens and visitors to the country.
- Deteriorating air quality in Philippine urban centers from combustion of over 120 million equivalent barrels of oil each year (including coal use). This also results in the emission of green house gases approaching 20 million metric tons of carbon per year. The Metro Manila area has developed a reputation for possessing Asia's dirtiest air. A concerted strategy of efficient transport system, emission control, air quality monitoring and improvement and effective approaches to commuter reduction is key.
- Existing reduction or disposal strategy for rapidly accumulating industrial waste remains ineffective. The Philippines lacks the required infrastructure for the handling of toxic industrial waste spawned by over 20,000 hazardous (waste) generators. For comparison, Americans produce 7.6 billion tons of highly hazardous waste, but these are strictly regulated at the state and tribal levels. Likewise, there is now worldwide concerted effort to recycle large fractions of industrial wastes generated by specific waste producers. Programs such as Denmark's Kalunborg "eco-industrial park" allows for virtually complete recycling and resource sharing amongst an oil refinery,

pharmaceuticals, wall board producer, power company. For example, the power plant scrubs sulfur dioxide from their smoke stack and sells it to the wallboard company that needs it as raw material. Biotechnology (biodegradation, biobeneficiation, recycling biomass to paper, etc.) and the emerging application of designer nano-technology are key ingredients of the U.S. strategy. The Philippines is best served by strictly implementing existing hazardous waste regulations, improving ineffectual ones, and keeping abreast of more recent but implementable waste reduction and reduction strategies.

- Water contamination and water treatment problems resulting from inadequate facilities for the management and treatment of sludge generated by over 120,000 industries, mine wastes and tailing, agricultural contaminants, and residential septic systems. The infrastructure for the treatment of municipal sewage from 15 million households is woefully insufficient, groundwater supplies are vulnerable to leachates produced by the continued operation of open dumps, and inadequate availability of remediation technologies to rehabilitate contaminated surface (lakes and marine environments) and groundwater systems. Clear strategy for contaminant prevention and treatment are keys to getting a handle of this emerging problem.
- Water supply problems associated with increasing urban population with accompanying water demand pressure from industries and agriculture. Massive groundwater utilization are leading to drawdown effects including land subsidence and saline water intrusion.
- Expansion of land used for human work and habitation to areas prone to natural (e.g., flooding, land slide, lahar flows, volcanic eruption, and earth quakes) and anthropogenic hazards (e.g., water contamination, pathogens, and infectious diseases). The arithmetic is simple, a growing population will be forced to live and work in higher-risk terranes and locations. A government that opts not to seriously address the issue of a growing population is morally bound to protect this growing population from avoidable risks. Conversely, human habitation and economic activities are also enhancing the likelihood of environmental disasters. For example, deforestation and other human activities (e.g., housing development, mining) can dramatically impact flooding and land slide risks and groundwater extraction affects land subsidence and flooding risks.
- Finally, the same expansion of land used for human work and habitation to ecologically sensitive areas can lead to the destruction of tremendous biodiversity on tropical rain forests (<10 percent virgin forest), mangroves (<20 percent of original mangrove) and coral reefs (<5 percent in excellent condition) in the Philippines. Apart from the utilitarian reasons for preserving biodiversity, the protection of endangered species has moral, cultural and spiritual dimensions that must be considered.

## Concluding Statements: Approaching a Balance

Whenever there is doom and confusion, there is indeed a great temptation to write a book or pontificate, as I am doing now. My hope is we can do a little bit better than just sound off and complain. Part of our task, if this gathering is to have meaning beyond just another good U.P. alumni symposium, is to confront issues honestly first and foremost, separate the “hype” from the “real threats”, identify realistic approaches to mitigate those threats, and most importantly come to our own conclusion, as to what each of us in this room today is prepared to do individually or collectively. If today’s gathering is to have real impact, it must be such that each of us will be moved to action. I am an academic, but I did not come here for intellectual amusement, either mine or yours. The organizers of this symposium did not put this event together to fill in your time, and I do not suppose any of you came here to do only that either. I urge each of you critically listen to the subsequent presentations, weigh the facts and opinions we have put before you and participate in the subsequent discussion so that you can resolve for yourself why it is or it isn’t important that we change the way we live our daily lives.

The scientific and technological community should continue to strive to better characterize emerging environmental and other hazard concerns and find appropriate mitigation measures once such concerns are identified. Whereas individual institutions and foundations will continue to conduct such studies on the basis of the priorities identified by each, the scale of threats and impact often warrants a longer term, larger scale and unified strategy. Outcomes of national or international concerted effort identifying the preeminent environmental problems facing the country/region should be paid attention to, and countries like the Philippines in particular must identify workable locally-viable responses. Past environmental policies and their implementation have been largely reactionary, with short-lived initiatives and “stop-gap” approaches being the norm. Yet it is clear that such an approach has not gotten us too far, with millions of Filipinos continuing to face unnecessary risks daily.

The cost and organization of a concerted environmental approach have often been a deterrent in its forward implementation. A cost-benefit analysis of implementing a national strategy for environmental and hazard mitigation is doable, and likely to show a net benefit not counting the number of human lives that will be spared. This utilitarian justification can be crystallized by putting cost of life, property, business losses, in the same currency as the cost of mitigation. The destruction of the environment has cost that can enter the basic spread sheet of normal economic analysis. But a purely utilitarian approach cannot be the sole basis for deciding our actions. Aldo Leopold, widely acknowledged as the father of wildlife ecology, pointed out that we have no qualms building an aesthetically pleasing house even though it is seldom “profitable” to do so. While we have long acknowledged that we are prepared to put value on the pleasantness, quality of life or safety of our individual

dwelling, we have thus far failed to extend the same to the rest of the space we live in. On the question of government bureaucracy, the traditional approach of “boxes and arrows” amongst balkanized government bureaucracies have not worked in the past. This is not surprising, given that existing bureaucracies are designed to address only parts of an otherwise intricately interlinked set of issues. Such multi-headed beasts must be taken by the horns, and it may be appropriate to elevate an environmental and natural disaster czar to take on a holistic leadership role (unless the President herself wants to take this on). Any approach, either new or patterned after successful approaches in other countries, must be aimed at formulating an integrated national strategy based on thorough risk identification and assessment, and implementing mitigation or relocation measures accordingly. Indeed, environmental considerations must become a regular part of the larger planning of governments, as it deals with economic strategies and eradication of poverty.

Environmental governance cannot be fully entrusted to governments alone. At the very least, a perception of “conflict of interest” is inevitable when a government bent on economic development and returns is entrusted with the responsibility of environmental protection. The imperative of the proactive approach advocated to above extends beyond government, scientists, engineers, urban planners, etc. into the larger society and each individual. All of us will be much better off with a more proactive approach to our individual actions and as well as the actions we goad our government into. Those amongst us who are very spiritual profess weekly that we will live our daily lives in a manner that will do the most good to ourselves and our neighbors, in the service of God. The church has indeed already recognized our spiritual responsibilities to that environment wherein we live. Some of us view this simply as a moral imperative that we owe our children and grandchildren who will inherit the Earth. All of us will be helped by clearly distinguishing those that are “*immediately gratifying*” to those that are “*eternally beneficial*” in our daily actions. Aldo Leopold said it best: “It is hard to make a man, by pressure of law or money, do a thing which does not spring naturally from his own personal sense of right and wrong.”

Environmental governance must be a shared responsibility. A preeminent environmentalist, Prof. Edward Wilson, advocates a partnership format in the form of an “iron triangle” among governments, private sector and scientists. The private sector in this case includes non-government organizations, the business sector and society as a whole. I believe that representation from these groups of stakeholders, perhaps presided over by an environmental czar, could bring about real and constructive reform in environmental governance in the Philippines and worldwide. At its core, such an “iron triangle” must be formulated in a cooperative environment, with clear “governance rules” of its own and clear enforcement mechanisms (e.g., monitoring, sanctions, arbitration). Such an entity must have the capacity (e.g., financial resource, knowledge and infrastructure) to develop policies and act on those policies. Such partnership entity could be the negotiating venue for conflicting interests, guided

by credible data that is openly accessible. Finally, such an entity must engender on the citizenry a fuller understanding of environmental and related issues (e.g., health, economic) through education and outreach, so as to foster public confidence and participation.

Some would say that this discourse focused too much on what the environmental problems are, how we perceive and articulate them, and how we can begin to think of possible solutions. Perhaps I could have expended more effort examining the root causes of these environmental concerns – population and poverty, consumerism, technology and the present market system. Perhaps, that is true. But what I have put forward are things that must be understood and addressed, regardless of our collective ability or inability to affect the “driving forces” of environmental degradation. Ambitious as some of the suggestions may seem, I have no doubt that they are doable now. The great Mohandas Gandhi said it best: “The difference between what we do and what we are capable of doing would suffice to solve most of the world’s problems.”

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# Think Green! Act Green!: Education for Sustainable Development

Merle C. Tan\*

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## Our Context: Population and the Environment

**M**any informed observers say that world population growth is the most crucial environmental problem facing Earth today and in the future. The interrelated problems associated with rapid population growth were outlined in 1994 by T. Ahmed Obaid, Executive Director of the United Nations Population Fund. These are: overexploitation of fragile ecosystems, increased rate of urbanization, excessive use of unsustainable farming techniques, increased unemployment, increased number of undernourished, reduction of biodiversity, and increased demand for water, energy, food, transportation, shelter, education, health, and other services. We also know that high density populations have less resilience to natural and human-induced disasters than low density communities.

Human impact on resources and the environment varies not only with changes in population growth and distribution but also with changes in levels of consumption and the technologies involved. Consider the problem of greenhouse gases which threaten to warm Earth. It is not just due to huge impending increases in consumption in large population countries but also to the consumption of highly industrialized countries with smaller populations. Hence, stabilization of human population growth, adoption of environmentally sound industrial and agricultural technologies, reforestation, and ecological restoration are crucial to create an equitable and sustainable future for all humankind in harmony with nature.

Among the many recommendations for dealing with societal and environmental issues, perhaps none has such a catalytic effect as the education of the citizens. Thus, this paper is focused on education, environment, and sustainability. It offers some strategies on how

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University of the Philippines (U.P.) and its alumni can serve as a role model in promoting sustainable development-oriented behaviors. It presents an educational program that can develop or enhance “communities of practice” to build a sustainable future.

### Environmental Carrying Capacity

One of the least understood principles used to explain the impact of population growth on the environment is that of carrying capacity. I use the analogy shared to us by a professor in ecology to simplify it:

*A farmer started with a few hyacinths in a pond 128 square meters in area. These hyacinths doubled in number daily. During the first Sunday, the water hyacinths covered less than 1% or 1/128 of the surface area. But the farmer does not worry.*

*Still doubling in number, the hyacinths covered 1/62 of the water surface on Monday, 1/32 on Tuesday, 1/16 on Wednesday, 1/8 on Thursday and 1/4 on Friday.*

*The following Sunday, the pond was completely filled with hyacinths. The full capacity of the pond had been reached. Any further increase in number can no longer be accommodated by the pond. The hyacinths were rapidly using up the nutrients in the water.*

What do you think happened to the pond and the life forms it contained?

The increasing number of hyacinths is analogous to the exponential growth of people. After a given period, the number of hyacinths in the pond increased to more than what the pond can support. The pond’s carrying capacity had been exceeded.

Carrying capacity means that a given ecosystem can only support a specific number of individuals at a given time. If the carrying capacity is exceeded, an imbalance in the ecosystem (usually an environmental problem) occurs. Because ecosystems are interconnected, what happens to one ecosystem directly or indirectly affects others.

Globally, many experts are concerned that Earth’s “carrying capacity” is already overstressed. Urgent action by all sectors of society – government, business and industry, private foundations, educational institutions, citizen groups, and the general public – is needed to address these fundamental problems and reverse the trend.

### Our Vision: A Sustainable Future

The United Nations has declared 2005-2014 as the “Decade of Education for Sustainable Development (ESD),” which calls for a process of reorienting educational policies, programs and practices so that education plays its part in building capacities of all members of society

to work together to build a sustainable future. ESD came about from a broad understanding of development which includes: (1) equitable distribution of wealth; (2) participation by the population in the process of decision making; (3) protection of the environment; and, (4) preservation of the cultural identity of the community. During this decade, ESD hopes to attain “a world where everyone has the opportunity to benefit from education and learn the values, behaviors, and lifestyles required for a sustainable future and for positive societal transformation” based on three pillars: society, environment, and economy, with culture as an underlying dimension. The ESD recognizes, respects and accepts the limits of the life support systems in economic decision making.

The ESD program is an offshoot of the United Nations World Summit on Sustainable Development held in Johannesburg in 2002. In that world summit, the delegates reviewed the extent of implementation of the agreements and accomplishments during the 1992 Earth Summit in Rio de Janeiro, Brazil. This is where Agenda 21 was formulated, Chapter 36 of which focused on ‘Education, Awareness and Training,’ processes by which human beings and societies can reach their fullest potential. It is recognized that social groups with higher educational attainment tend to have smaller families, so educational resources should be better distributed. If these were spread to remote areas, people would not flock to urban areas and exceed the carrying capacities of the latter.

### **The Role of UP and Its Alumni in Promoting ESD**

Understanding the relationships among population, human activities, and the environment, and developing strategies for an environmentally sustainable future are complex issues. There is a growing demand for universities to take the lead role in addressing these concerns, the university being a microcosm of the larger community. Therefore, the manner in which a university carries out its daily activities is an important demonstration of ways to achieve environmentally responsible living.

Many universities have responded to this challenge. As a matter of fact, there is an association of university leaders for a sustainable future (ULSF), established in 1990. The association came out with a declaration of actions (Talloires Declaration) on how universities could play a role in promoting environmental management and sustainable development. Members of the association report their programs related to the theme in the ULSF website. On May 17-19, 2006, a conference on “Learning from Success: Steps Toward More Sustainable Campuses” was held in Saint Joseph, Minnesota. The sessions tackled campus sustainability in its broadest sense: green building, alternative energy, campus recycling programs, environmental education, community organizing, energy efficiency, student participation, transportation, building maintenance and housekeeping, and other subjects related to sustainable campus design, operations, or living.

The Asia Pacific Cultural Centre (ACCU) for UNESCO has launched the 2006 Search for Centers of Excellence on ESD across the region. U.P. could be one of the centers in the near future if it plays a strong role in the education, research, policy development, information exchange, and community outreach to help create an equitable and sustainable future. U.P. has the expertise necessary to develop the intellectual and conceptual framework to achieve ESD. Many of its alumni develop and manage society's institutions. U.P. and its alumni must assume the profound responsibility to increase the awareness, knowledge, technologies, and tools to create an environmentally sustainable future. In addition, U.P. campuses are clean and green, models of well-managed ecosystems. The U.P. faculty, students, administrative staff, and alumni groups could make a difference.

### **Our Action: Think Green, Act Green**

"Think Green, Act Green" is the call of the times. Thinking green means making a commitment to help create a sustainable economy - one that doesn't use up resources at the expense of future generations. It means being aware of our interconnectedness with the world and reflecting on the unintended damage we cause nature in the daily course of our lives. Hopefully, thinking green leads to acting green, particularly, taking corrective action to make environmental responsibility and stewardship a reality.

For U.P. and its alumni, thinking green and acting green means that we embrace the tremendous responsibility as leaders in education, in industry, in every field to use our expertise, resources, and technologies to better the communities we serve. It means for us to understand that the world is a finite place with finite resources, and that the next generation's products and processes must be designed within the framework of this complex system. Thinking green and acting green also means being mindful of, and sensitive to, the natural environment in our daily life.

U.P. must organize the Think Green, Act Green (TG-AG) partners to include colleges, institutes, dormitories, student organizations, faculty organizations, the student affairs office, office of research and development, Research, Extension and Professional (REPS) Council, food service and food concessionaires. UP must appoint a TG-AG Programs Committee or Task Force consisting of faculty, REPS, administrative, and student groups to promote environmental programs within the university system. This committee or task force must have a website for campus environmental activities where the green partners can report their activities and accomplishments.

There are specific recommendations for consideration. Many of these activities, perhaps are already being done by different colleges and/or campuses; there is a need, however, to institutionalize and practice them across the university system.

## **On Curricular Programs**

U.P. must review curricular programs to promote understanding of the relationships among population, human activities, and the environment. Quality education for sustainable development needs to be based on state-of-the-art knowledge; its implementation requires continuous review and updating of programs, curricula and teaching materials (The Lüneburg Declaration on Higher Education for Sustainable Development, 2001).

### **On Capacity Building and Training**

U.P. must produce environmentally literate specialists in demography, engineering, science, economics, social sciences, health, and management to address the critical shortage of specialists in environmental management and related fields (DOST, 2004). One GE program that could be oriented towards ESD is STS or Science, Technology, and Society.

U.P. must engage faculty, staff, administration, and students in activities such as energy and water conservation, recycling/waste management, and natural disaster preparedness and mitigation mechanisms.

### **On Research**

UP must seek large increases in the funding of interdisciplinary environmental research rather than focus on purely traditional disciplines to reduce compartmentalization of problems and solutions. There is also a need to increase or focus research on the following: examining strategies, technologies, policies, and institutional behavior towards understanding of the complex interaction of human activities and the environment; development of environmentally sound technologies and the establishment of a new ethos to stabilize population, and anticipatory research to identify future threats to a sustainable society, and develop solutions to circumvent these threats.

Incentives must be given to outstanding scholars who engage in research and teaching on environmental topics and help them lead other scholars in this direction. Set aside funding and create positions for faculty and REPS across autonomous units who will research and teach population, environment, and sustainable development topics. U.P. must work with faculty to review tenure and promotion requirements to reward interdisciplinary work on environment, population, and sustainable development issues.

### **On Networking and Partnerships**

U.P. must develop or strengthen collaborative programs with universities abroad to promote faculty and student exchanges, research, and education programs that develop international understanding.

It must forge linkages with local government units (LGUs) which have high degree of environmental awareness and sustainable practices, e.g., coastal zone management, *Bantay Dagat* programs, or waste reduction programs. It must expand its network with other government organizations, private and business sector entities, as well as nongovernment institutions, to facilitate implementation of community-based environmental programs such as the environmental waste management program, and promotion of the Philippine Clean Air Act, and Water Quality Act.

In addition, U.P. must give extra effort to bridge the gap between scientists and science educators on one hand, and teachers on the other, by establishing partnerships with teacher training institutions and primary and secondary schools to enhance the capability of teachers in teaching about population, environment, and sustainable development issues.

### **On Advocacy**

The faculty, REPS, students and other staff must use every opportunity to raise public, government, foundation, and university awareness by publicly speaking out on the importance of environmental concerns and the problems posed by a rapidly growing population. U.P. may have to upgrade/activate its radio station (DZUP) to serve as a venue for such advocacy programs and involve different sectors of the U.P. community.

There is a need to conduct a baseline Green Audit to serve as guide in determining where U.P. in general and its colleges and institutes in particular stand in terms of environmental protection and practice of sustainable behaviors. In addition to the Green Audit, there is a need to conduct an environmental literacy assessment across the U.P. system to be able to plan intervention programs and identify instructional materials to be developed to promote sustainable behaviors.

## **The Green Audit in Focus**

From 1995 to 1997, this author was involved in the development of an environmental education (EE) project for the Philippines through a grant from the Asian Development Bank. Her team developed an EE Guide which contained among others, the Green Audit – a checklist of practices and behaviors which can reveal which areas can be improved. The Green Audit does not require ratings or scores. What matters is that change can be instituted, particularly concerning practices which do harm to the environment, often without the offenders realizing it.

The Green Audit is divided into three parts: policy, operations, and academics.

At the policy level, the audit is concerned with the following: whether or not environmental protection is part of the U.P. vision/mission statement; if there are environmental policies related to environmental protection and sustainability; if there is a committee or group of

persons responsible for environmental projects and programs; or if its personnel are required to practice environment-oriented activities such as waste reduction, use of nontoxic materials, and involvement in environment-related activities, and finally if purchases are based on policies that reject products harmful to the environment in their production and/or disposal.

At the operations level, the green audit looks at the design of buildings to maximize natural lighting and ventilation, and covers practices in electricity, water and paper use, as well as waste disposal strategies.

The academic-related parameters include whether or not environmental integration is done in different subjects and courses; if there are sufficient instructional materials and resources on environment-related issues; and if the learning process includes opportunities to get involved in community/environmental problem solving and decision making.

The ultimate goal of education for sustainable development is to impart the knowledge, values, attitudes and skills needed to empower people to bring about the changes required to achieve sustainability.

### The Five Steps Along the Green Path

New Zealand's Ministry of Environment enumerated five steps along the green path: making a commitment, involvement of all academic and administrative staff and students, conduct of an environmental or green audit, making an action plan, and monitoring of activities. The Think Green, Act Green program proposed for the UP system follows a similar path; it will inspire our alumni, faculty, REPS and administrative staff to take a lead role in helping the next generation to develop knowledge, skills, and values that will enable them to enjoy and share the Earth's bounty while living within its means. Thinking green and acting green also means being able to promote awareness about the concept of carrying capacity.

Thinking green and acting green can be practiced at home, in our offices, in our communities, and everywhere else. It is not enough to be doing less harm to the environment; we have to be doing something that benefits our people so we do not see the separation between the natural and built environment. We have to go back to seeing ourselves as part of that environment. Jonathan Schell, author of *Fate of the Earth* said: "Every person is the right person to act. Every moment is the right moment to begin."

*Kung hindi tayo kikilos, sino ang kikilos? Kung hindi tayo kikiibo, sino and kikiibo? Kung hindi ngayon, kailan? Let us transform our political activism into environmental activism!*

Let us all REFLECT on our behavior, CREATE A GLOBAL VISION of a sustainable future, and ACT LOCALLY to achieve this Vision. In all these endeavors, the UP and its Alumni should PROVIDE the LEADERSHIP.

Specifically, as our contribution to the U.P. Centennial, let us make the Think Green, Act Green Program work.

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1. Research articles are empirical analyses of research studies, program evaluations as well as academic exercises on population, reproductive health, and development issues;
2. Research notes explore methodological and theoretical issues in population, reproductive health, and development research;
3. Commentaries are analytical comments on specific issue, policy or program related to population, reproductive health, and development; and
4. Review of researches, books and bibliographic essays on population, reproductive health, and development matters.

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2. Articles should be double spaced and with all pages numbered.
3. Place all tables and charts on separate sheets at the end of the text. All charts should be provided with data points for easy replication.

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