

## RESEARCH COMMUNICATIONS

# Knowledge of reproductive health among eighth-grade students from three selected private institutions in the Philippines

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### ABSTRACT

**Background:** Reproductive health (RH) education in the Philippines has yet to realize the aspirations of the Responsible Parenthood and Reproductive Health Act of 2012, based on trends reported by the National Demographics and Health Survey (2013 and 2017).

**Objectives:** This paper report on a subset of data collected from 2016 to 2017 for a research that aimed to describe what a set of eight grade students learned about reproductive health through their knowledge and attitudes towards family planning and related topics.

**Methodology:** The findings come from a subset of a 63-items survey administered online, highlighting sexual health knowledge, sexual health practices, sexual health attitudes, and quality of RH education. The study used a four-question quiz adapted from the World Health Organization questionnaire, Illustrative questionnaire for interview-surveys with young people, which eight graders are expected to know. Sexual health practices and attitudes, and quality of reproductive health classes were adapted from the New Brunswick Students' Ideas about Sexual Health Education instrument.

**Results:** The results showed that only nine percent of respondents (both male and female) answered all questions correctly in the WHO four-question quiz. There was marked difference between male and female responses in the sexual health practices and attitudes questions; most respondents who reported sexual activities also reported not using contraception (65.22% for males and 12.5% for females). Ten percent indicated never having RH education classes, with 52% only having had zero to one RH education classes.

**Conclusion:** Overall, findings suggest there are several variables that preclude successful RH education. Thus, other sources of education can be explored and integrated into the curriculum, such as the home, the community, media, and even peers.

**Keywords:** reproductive health education, reproductive health knowledge, sexual health practice, sexual health attitude, adolescent health

## Introduction

Reproductive health continues to be a challenge in the Philippines. The Responsible Parenthood and Reproductive Health Act of 2012 or RH law (RA 10354) mandated the provision of comprehensive sexuality education during its passing in 2012 to promote improved reproductive health outcomes [1]. Part of the mandatory strategies of this law is an age- and development-appropriate reproductive health

education curriculum to be created by the Department of Education (DepEd) and to be based on the DepEd K to 12 curriculum [2]. RH classes begin in the first grade and last through high school.

This paper is reporting on a subset of data collected from 2016 to 2017 for a research that aimed to describe what a set of Filipino eight grade students (13 to 14 year old adolescents)

learned about reproductive health through their knowledge and attitudes towards family planning and related topics. The research was anchored on information from the 2013 National Demographics and Health Survey (NDHS) which showed a lack of detailed account of the reproductive health and behaviors of young people in the Philippines.

The 2013 NDHS reported no information on contraceptive usage for women younger than 15, no information on the sexual behavior and contraceptive usage of men, and no in-depth indicator of Filipinos' existing reproductive health knowledge, aside from their awareness of contraceptives and sexually transmitted diseases [3]. Other studies that explored reproductive health in the Philippines have shown concerning trends that adolescent pregnancy rates in the Philippines are high and rising [4,5,6]. The 2017 NDHS reported that 9% of women in the 15-19 age bracket have already given birth, which is a slight decline from the 10% reported in 2008 and 2013, though higher than the seven percent reported in 1993 [7].

The 2017 NDHS noted further that only 24% of women correctly identify the risk of pregnancy when having sex midway between two menstrual periods, with 16% of women not knowing their fertility period, suggesting minimal reproductive health knowledge. Though it may be premature to achieve measurable outcomes that can be attributed to the RH Law, the subset of findings from the 2016 survey may provide insights in this respect, as well as describe potential means of addressing RH outcomes, in an age group younger than the fertility age cut-off of the NDHS.

## Methodology

This paper is reporting a subset of the findings from a 63-item survey that was administered from November 2016 to January 2017. That survey was conducted as a cross-sectional study, in the form of a self-reporting online survey among 8th grade Filipino students, about reproductive health knowledge and behaviors and the conditions of their reproductive health classes. The specific population was targeted because the NDHS does not survey people before 15 years of age, thus, studying this population will help form qualitative insights as to how reproductive health education can be designed such that it will translate into quantifiable outcomes in the future.

The study used convenience sampling and recruitment of respondents that was coursed through three co-educational

private institutions that: 1) permitted the conduct of the survey; 2) agreed to facilitate permission from parents, 3) and those with the available computers that the students can use to access the survey questionnaire online. These educational institutions included one in the National Capital Region (NCR), one in Central Visayas, and another with several branches in NCR. Teachers facilitated the assent process and parental consent, guided the students in using the school computers to answer the survey, and reassured the students that they do not need to complete the questionnaire and can withdraw anytime. However, these teachers had no access to any data collected, since the survey tool is anonymous and web-based, and responses are not archived in individual devices.

The 63-question survey instrument was administered during a school day and designed to be completed in 15 to 20 minutes. The main parts of that survey are questions that are highlighted in this paper are about: 1) reproductive health outcomes (sexual activity, sexual health practices, or sexual health knowledge) and 2) conditions of reproductive health classes (how comfortable, how many, and how recent).

Sexual health knowledge was assessed through a four-question quiz adapted from the World Health Organization (WHO) questionnaire, *Illustrative Questionnaire for Interview-Surveys with Young People*. To get a sense of the knowledge outcomes of respondents, the WHO four-question quiz was administered to the respondents, consisting of four True or False statements: 1) A woman can get pregnant on the very first time she has reproductive intercourse, 2) A woman stops growing after she has had reproductive intercourse for the first time, 3) a woman is most likely to get pregnant if she has intercourse halfway between her periods, and 4) it is important to either use condoms/ other forms of contraception). The students had to mark each statement as either true or false.

Questions defining the sexual health practices, sexual health attitudes, and quality of reproductive health classes were adapted from a questionnaire used in similar research in Canada called the New Brunswick Students' Ideas about Sexual Health Education instrument [8,9]. These questions included 1) What grade were you in the last time you received reproductive health education?; 2) When did you feel comfortable asking any questions about reproductive health in class?; and 3) How many classes did you spend on learning about reproductive health? Classes presumably followed the minimal requirements of the DepEd curriculum in terms of contents.

To assure honest responses for participants' reproductive health behaviors, sensitive questions about the student's own reproductive health experiences were preceded by the same question about the said student's friends. This was done in an effort to destigmatize taboo reproductive health behaviors. These two sources offered questions that were used as proxies for reproductive health behaviors and knowledge.

Due to the sensitive nature of the topic, all survey questions were optional, leaving a number of unanswered items in the dataset. While it was not ideal to have incomplete responses, it was ultimately decided that these incomplete responses would be included in further analysis due to the value of the other responses. As the sample size was ultimately restrictive due to the taboo nature of the subject matter and the Catholic background of most people in the Philippines, a minimum sample size was not determined prior.

## Results

A total of 837 8th grade students successfully started the online survey during the three-month recruitment period, based on web-based records of the survey. The demographic characteristics of the participants, in addition to the gender composition of their class are summarized in Table 1. Out of the 837 students that started the survey, only 736 completed it, which were included in the analysis.

There was a nearly 1:1 ratio between male and female respondents (46% and 54%, respectively). Most students (74%) were Roman Catholic, with the remaining 26% was comprised of other denominations. As expected, most 8th grade students were between 13-14 years old (85%) with 10% of students being 15 years old, and 2% of students being 16 years or older. The characteristics of the study population are summarized in Table 1.

The results demonstrated that a majority of the respondents (90%) scored between 50% and 75% in the True or False quiz. Seven percent scored zero out of four questions, 14% scored one out of four, 35% scored two out of four, 35% scored three out of four, and only 9% scored four out of four. Most students correctly responded to the statements "it is important to use either condoms or other forms of contraception" (89%) and "a woman can get pregnant on the very first time she has intercourse" (72%). Around half of the students correctly responded to the statement that "a woman is most likely to get pregnant if she has intercourse half-way between her periods" (55%). Only 22% of students correctly responded to the statement Q4. These results are summarized in Table 2.

**Table 1.** Demographics

Variable		n	(%)
Gender	Male	347	46%
	Female	406	54%
Religion	Atheist	5	1%
	Iglesia ni Cristo	25	3%
	Islam	6	1%
	Other	141	19%
	Philippine Independent Church	5	1%
	Protestant	11	1%
	Roman Catholic	556	74%
Age	12 years old	10	1%
	13 years old	257	34%
	14 years old	385	51%
	15 years old	73	10%
	16 years old OR older	14	2%
Has a sala set	Yes	661	90%
	No	74	10%
Has a telephone	Three or more	641	87%
	Two	41	6%
	One	40	5%
	None	14	2%
Has a media player	VCD/DVD	480	65%
	TV	222	30%
	None	33	4%
Has a refrigerator or freezer or washing machine	Both	588	80%
	One	111	15%
	None	36	5%

**Table 2.** % correct on reproductive health knowledge questions, ranked highest to lowest

Question	% Correct
It is important to use either condoms or other forms of contraception.	89%
A woman can get pregnant on the very first time she has intercourse.	72%
A woman is most likely to get pregnant if she has intercourse half-way between her periods.	55%
A woman stops growing after she has had reproductive intercourse for the first time.	22%

A small proportion of students (6.4% for males and 2% for females) reported having had sex. Among those reporting sexual activity, a large number of students did not use contraception (65.22% for males and 12.5% for females).

When asked about their reproductive health education experiences, 10% of respondents reported never having had RHE classes (60% reported having them in the last two years, and 30% in the last 5 years). For the students that had reproductive health classes, 12% reported being comfortable in class all the time, 63% half of the time, and 25% never. 52% of students reported only having had 0-1 RHE classes, while the remainder reported having had two or more RHE classes.

## Discussion

The Responsible Parenthood and Reproductive Health Act of 2012 is a law that affirms “the right to health which includes reproductive health, the right to education and information, and the right to choose and make decisions for themselves...” and “that the State shall provide age- and development-appropriate responsible parenthood and reproductive health education to adolescents and school-age children which shall be taught by adequately trained teachers and educators in formal and non-formal educational system and integrated in relevant subjects...” [10]. This act designates the Department of Education (DepEd) to formulate a curriculum for public schools which can also be adopted by private schools [10].

The RH Law correctly identified education as pivotal to resolving these trends because according to NDHS, only 3.6% of women aged 15-19 use (any method of) contraception, and that 70% of women believe that if a minor (age 15-17) wants to use a contraception, he or she should seek written permission from their parents. The study did not do random sampling, however the purposive sampling done was able to yield a sampling ratio of 46% male and 54% female. While this distribution does not exactly reflect the nearly 1:1 national distribution (50.6% male, 49.4% female) [11], the proportion is somewhat similar.

The results of this survey reflect the common reproductive health misconceptions documented by the NDHS nationwide. While True-False tests are considered to have much lower reliabilities for accurate correlation, the WHO considers these four questions as indicative of RH knowledge and exploring these areas can identify RH knowledge gaps (these questions were derived from the WHO questionnaire) [8,12]. It should be noted that the WHO questions are relatively simple and

covered basic reproductive health knowledge so most 8th grade students are generally expected to obtain a score of 4 out of 4.

This is a gap that is worthwhile to pursue, if but to identify variables that can hinder a successful RH education. The curriculum may be problematic, or the implementation is not effective or maybe there is a lack of teachers equipped to handle the RH classes, or the questions asked in the survey may not have been covered. The frequency or recency of RH classes may also be a factor, since majority reported having these RH classes within the past two years, possibly affecting conceptual recall. DepEd may need to revisit the curriculum and assess the implementation in different schools.

Report of sexual activity is higher in males than in females, which explains why using protection during sexual activity tends to be higher in males as well. However, many respondents who reported being sexually active did not report using protections. While the data will not be able to correlate specific variable with outcome, the results indicated a difference in the pattern of responses from male and female respondents.

One of the limitations of this survey is the language used in the questionnaire. Preferably the questionnaire should have been translated into local dialect, thus affecting responses to the knowledge questions.

## Conclusion

Admittedly, the results of the survey in these three institutions may not be representative of the situation in other educational institutions. It would be productive to identify best practices across the country to determine standards with which schools can benchmark their own curriculum.

The difference between male and female responses, indicate a need to separate a strategy for female and male students. This is somewhat intuitive, as there is a greater discrepancy in maturity between boys and girls in elementary school, which likely leads to a very different way of processing sensitive content. The discrepancy in Filipino males' and females' sensitivity to RHE at early ages should be further investigated, as this could be an area from which early RHE curricula could be amended.

The seeming lack of recall of basic RH concept implies a need for more frequent introduction of concepts or perhaps interweaving of concepts in different classes instead of just

one RH class. Also, other sources of education can be explored and integrated into the curriculum, such as the home, the community, media, and even peers.

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