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 Undergraduate Research Thesis: Is it really a Necessity or an Unnecessary Burden?

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- Psychiatric Nurses Providing Post-Stroke Depression Education to Care Partners of Stroke: A Pilot Study
- Relationship between Health Literacy and Health-Promoting Behaviors among Teen Pregnant Mothers
- Disaster Risk Reduction Knowledge among local people in a Selected Community in the Philippines
- Assessment of Perceived Healthcare Access in a Rural Community in Rizal: A Cross-sectional Study

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### SAN BEDA UNIVERSITY

#### **VISION-MISSION STATEMENT**

San Beda University, a Catholic educational institution, is committed to the Christian middle of the Bedan Community as its service to the Church, the Philippine society, and the world.

#### VISION

San Beda University envisions a Community

Fully Human Wholly Christian Truly Filipino Globally Competitive

#### MISSION

San Beda University aims to form its members in:

Faith (Fides) Knowledge (Scientia) Virtue (Virtus)

and inculcate in them the Benedictine core values of prayer and work (ora et labora) that include:

Study Community
Pursuit of Peace

#### **EDITORIAL**

### Undergraduate Research Thesis: Is it really a Necessity or an Unnecessary Burden?

The prevailing tradition among Higher Educational Institution (HEI) in the Philippines offering undergraduate degrees is to require a research output, in the form of a full thesis, prior to graduation. The thesis is unceremoniously elevated from a mere requirement for a course in introduction to research to a pre-requisite for graduation instead. This tradition is out-dated and completely unnecessary.

There actually exist no law or administrative orders which explicitly stipulate the need for a full-blown paper to be produced prior to the completion of an undergraduate degree in the Philippines. This practice seems to stem on the premise that production of a completed research paper equates to the mastery and competence in doing a full-blown research and that producing a research output is the essential outcome of an undergraduate degree. These assumptions are flawed.

The ultimate goal of the undergraduate research course is appreciating the process of research, not knowledge production. The emphasis should be to develop the basic skills of the undergraduate students such as technical writing, proper citation, and formatting. Sifting thru and making sense of what is already available in the literature and how this knowledge translates into their professional practice should be the priority and not the production of new disciplinary wisdom. It seems that some educators have placed too much emphasis on the intended output rather than the process needed to produce that output. There are a number of cases where undergraduate research papers were produced but are erroneous in terms of the grammar, faulty formatting, and distrustful citations. This seemingly reflects the undergraduate students' lack of mastery of the basic knowledge and skills needed to actually produced a rigorous and methodologically sound research papers within an academic year. The tradition of requiring an undergraduate thesis as a prerequisite for graduation instead of developing student's competence in the process of conducting research have contributed in the production of low quality research papers in which results are practically unusable and only serve to decorate the wall of offices and libraries.

The unnecessary burden of producing a quality research paper prior to graduation within an academic year without the mastery of the basic process of research production creates a context ripe for unethical practices, such as plagiarism and manipulation of data,

waiting to happen.

Added to the difficulty of producing a completed research paper is the process by which the undergraduate students present their output. An antiquated process riddled with superfluous pageantry and absurd rituals which only make sense if it was done in the context of a graduate school level. One of such is the final thesis defense where undergraduate researchers are at times grilled for an output that they were not sufficiently trained to produce. The essence of collegiality, humility, and mentorship among students and professors sometimes seem lacking on these occasions. The opportunity to mentor students by emphasizing ways on how their output could be improved is at times shadowed by panel members deliberately highlighting the papers shortcomings. The imbalance of power between panel members and students is apparent especially when the suggestion by the panel members are often times viewed as absolute recommendations rather than implied suggestions. Critical thinking, within these situations, are not developed but rather averted. This toxic ambiance of some final thesis defense is one of the reasons why undergraduate students, instead of cultivating love and fondness for research develops an aversion to it.

For the culture of research within a HEI to flourish, these customs surrounding the undergraduate thesis need to change. The need to require an undergraduate research thesis prior to graduation is based on an outmoded tradition and neither is it based on competencies nor outcomes. At the end of the day, the main objective of any undergraduate course is to produce entry level professionals knowledgeable in evidence-based practice with the passion of a life-long learner and not the creation of expert researchers or producers of disciplinary knowledge.

RUDOLF CYMORR KIRBY P. MARTINEZ, PhD, MA, RN Editor-in-Chief

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RESEARCH ARTICLE

# Psychiatric Nurses Providing Post-Stroke Depression Education to Care Partners of Stroke: A Pilot Study

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#### Abstract

**Background:** Stroke survivors are a higher risk for post-stroke depression (PSD) after they return home from the hospital. Given that many stroke patients have friends or family members (care partners) present after hospital discharge, this pilot study examined the utility of psychiatric nurses educating family members on how to recognize PSD.

**Methodology:** This pilot study identified stroke patients and their care partner while they were in the hospital, to provide education on depressive symptoms, community resources, safety resources (e.g., suicide hotline), how to address symptoms of depression with their care partner. A descriptive observational design was used wherein a psychiatric delivered PSD education to the patient's care partner (instead of the patient). Knowledge of depression was assessed immediately prior to-, immediately after-, and at a 2-week follow-up after-, the education intervention.

**Results:** This pilot study was not powered to detect a statistically significant difference. However, among the 20 subjects (mean age 61 years), fewer scores fell in the lower range (less knowledge of depression) immediately after the education and at the 2-week follow-up phone call.

**Conclusion:** This study demonstrates the potential of multi-disciplinary nursing consultation to improve outcomes.

Keywords: care-partner, care partner depression, nursing, stroke

#### Introduction

ealth education has repeatedly been found to be a predictor to improving knowledge of stroke signs and symptoms (Lennon, Blake, Booth, Pollock, & Lawrence, 2018). Stroke knowledge has been linked to improved outcomes and reduced delay in treatment seeking behavior (Pandian et al., 2018). It stands to reason that a nurse who specializes in stroke is more likely to provide high quality stroke education than a nurse who specializes in another field. Similarly, nurses who specialize in psychiatric illness (including depression) are more prepared to provide depression-screening education than nurses who specialize in stroke. Self-recognition of depression is poorly studied with estimates ranging from 21% to 62% (Caplan & Buyske, 2015). This suggests that those with depression may be less likely than others to recognize their condition. Stroke is a known risk factor for depression and neuroscience nurses are often tasked with screening for depression, and to educate patients about, post stroke depression (PSD) (Cai, Stewart, Mueller, Li, & Shen, 2018; Trotter, Denny, & Evanson, 2019). Noting the aforementioned limitations, the purpose of this pilot study was to explore the efficacy of PSD education administered to care partners by a psychiatric nurse.

#### **Background**

Stroke is the leading cause of long-term disability in the United States (Thom et al., 2006). As the population is living longer, the number of patients experiencing stroke is increasing (Benjamin et al., 2017). On average, a stroke occurs every 45 seconds, with women having higher incidence than men. Nurses working with patients who have had a stroke are oftentimes responsible for answering patient and care partner or caregiver questions regarding the recovery process post-hospital discharge. Additionally, these nurses are expected to provide post-discharge education on a number of topics (e.g., medications, transition planning, ADL training, secondary stroke injury awareness, new stroke symptom awareness, etc.). This education is usually provided to the patients, and if a care partner is available at the time of the education, they can also listen in. The amount of information provided to the stroke survivor can be overwhelming and adding additional information, such as potentially trying to recognize depression symptoms, can add to confusion or being overwhelmed. Stroke nurses are trained on depressive symptoms and stroke recovery, but oftentimes these are not discussed in tandem. There is a need for patient and family PSD education, which is included as part of the Stroke Certified Registered Nurse Training.

Stroke survivors have a high rate of injury that requires care beyond the hospital that is provided by a family member, care partner, or employed health aid, with the majority of the burden falling on those that are closest to the stroke survivor (Olson, 2017). A care partner is distinguished from a member, caregiver, or health aid as the mutually benefiting dyad (Lu, Martensson, Zhao, & Johansson, 2019). The dyad promotes common goals that supports interdependence. This is a

divergence from the traditional caregiver holding the majority of the burden to support the receiver (Bennett, Wang, Moore, & Nagle, 2017). Emerging evidence supports that care partners also play a vital role in the stroke patient's recovery (Olson et al., 2011). The care partner involvement in the discharge education is usually optional and based on availability, therefore the information can be provided second hand to the care partner or not at all.

#### **Depression and Stroke**

Depression can be characterized as acute or chronic. Acute depression has a high recovery rate, and usually occurs after a traumatic incident. Chronic depression is defined as depression that has lasted for more than two years, and has a low recovery rate (Keller & Shapiro, 1982). Major depressive disorder (MDD) is a type of chronic depression defined by the American Psychiatric Association as those cases showing persistent signs of anhedonia, hopelessness, helplessness, over sleeping, and more. To be diagnosed with MDD, patients have to exhibit at least five of these symptoms for two weeks.

Full-time care of a stroke survivor requires dedication that can be overwhelming and can take a toll on the care partner (Lu et al., 2019). Depression, stroke, and disabilities have been studied in the literature and been shown to overlap presentation of symptoms and side effects (El Husseini et al., 2017). Stroke survivors and their care partners have an elevated risk of developing depression. Researchers have reported that providing care partners with support can decrease depressive symptoms (Berg, Palomaki, Lonnqvist, Lehtihalmes, & Kaste, 2005; National Stroke Association, 2018).

Studies suggest that risk assessment tools are useful to aid clinicians and patients in determining potential hazards that can cause stroke and related disabilities such as depression (Berg, Lonnqvist, Palomaki, & Kaste, 2009; Goldstein, et al., 2006). Depression after stroke may result or manifest as physical disabilities, and may ultimately incapacitate stroke survivors (Towfighi et al., 2017). These symptoms may be very difficult for the stroke survivor to recognize, therefore a partner specific education of symptoms of depression may be helpful. Approximately 7% of adults in the United States are diagnosed with depression every year.

Statistics on help seeking amongst those that are depressed vary and are based on socioeconomic status, age, social support, and culture. For stroke survivors, research has shown that there may be a link between stroke, depression, delayed help seeking, and poorer long term prognosis (Goodwin & Devanand, 2008). Even though stroke survivors are at higher risk for depression there has been little research done on the help-seeking for depression in this population.

Stroke recovery symptoms and depressive symptoms can co-exist (Kapoor et al., 2019). Acute depression can present in patients and care partners after a stroke. Research findings suggest an increase in the incidence of depression among care partners of stroke patients. In particular, one

study showed that although there was no increase in depression among patients and care partners within three months after stroke, there was a significant increase of depression symptoms among caretakers at twelve months, who did not have any support programs (Kotila, Numminen, Waltimo, & Kaste, 1998). Another study suggests that younger stroke patients have higher mortality and that there is a positive association between post-stroke depression and mortality (Ayerbe, Ayis, Crichton, Rudd, & Wolfe, 2014). These statistics have led to education of stroke survivors and their care partners prior to discharge, yet many times this education is provided amongst an overwhelming amount of other information (medications, physical therapy schedules, follow-up visits, and other discharge information). The information provided about recognition of depressive symptoms can be easily forgotten by the patient or care partner or not addressed by the provider.

#### **Methods**

This pilot study used a descriptive observational design to evaluate the efficacy of targeted depression symptom recognition education for care partners of stroke survivors. This study fills a gap in the literature by evaluating two novel approaches to post-stroke education: 1) the population being studied is the care partner, and 2) the intervention is an educational intervention delivered by a psychiatric nurse with expertise in depression and psychiatric nursing. Prior to any study procedures, approval was authorized by the Institutional Review Board (ethical review) and consent was obtained from all participants. Patients were not enrolled in the study and all patients continued to receive the standard of care including PSD education.

The intervention was teaching care partners to recognize PSD symptoms in patients who have had a stroke. The PSD education was designed by the psychiatric nurse, who, along with one other member of the care team, a Ph.D. prepared researcher with experience in psychiatric measures), provided education to care partners. The study team provided the care partners with targeted education of depressive symptoms and then evaluated the care partner confidence and knowledge to recognize depressive symptoms 2-weeks post-discharge. The education consisted of training on changing thoughts, emotions, physical, and behavioral symptoms of depression that the care partner may see upon discharge. Additional depression resources, suicide help lines, and community resources were provided to the care partner about the education given. All resources were publically available information that were written in layman's terms to be easily understood. The outcome of interest for this study is knowledge of signs and symptoms of depression.

Eligible participants were care partners of stroke patients admitted to the enrolling hospital if the care partner and the patient were at least 40 years of age. Participants were verbally consented and participated in the education module while the stroke patient was still in the hospital. The recruitment phase of the study lasted seven months. Before and after the education session, the Knowledge of Later Life Depression Scale Modified (KLLDS) test was administered to assess the participant's knowledge and confidence in recognizing depression symptoms (Karantzas, Davison,

McCabe, Mellor, & Beaton, 2012). The scale is 10 items that test the knowledge of recognition of depressive symptoms, specifically in the elderly patient. Responses range from strongly disagree to strongly agree. The scale has shown adequate internal consistency and internal reliability ( $\alpha$ =0.82) (Karantzas et al., 2012). Seven additional items, with responses ranging from strongly disagree to strongly agree, were included to address care partner knowledge of PSD. The surveys were administered three times throughout the study: baseline (prior to education), post-test (immediately following education), and follow-up (2-week follow-up via phone).

#### Results

Of the 23 care partners enrolled in the study, three were excluded for not meeting the age eligibility requirements. The study subjects (n=20) mean age was 60.6 (SD=12.5) years; 13 (65%) of the care partners were female and 10 (50%) were Caucasian (Table 1). The mean age for patients to whom care partners were related was 64.9(SD=12.6) years. All 20 care partners completed the pre-assessment and participated in the educational intervention. There were 6 subjects lost to follow-up for whom post-intervention scores are not available.

**Table 1.** The Demographic characteristics of the care partners.

| Variable                | Mean (SD)   |
|-------------------------|-------------|
| Age (years)             | 56.4 (16.4) |
|                         | N (%)       |
| Relationship to patient |             |
| Married                 | 15          |
| Cohabitating            | (68.2%) 3   |
| Live separately         | (13.6%)     |
| Sex                     | 15          |
| Female                  | (65.2%) 8   |
| Male                    | (34.8%)     |
| Race                    |             |
| Caucasian               | 11 (47.8%)  |
| African                 | 3 (13.05%)  |
| American                | 3 (13.05%)  |
| Asian Other/not given   | 6 (26.1%)   |
| Ethnicity               |             |
| Hispanic                | 5 (21.7%)   |
| Not Hispanic            | 17 (74.0%)  |
| Not given               | 1 (4.3%)    |

The SAS PROC GLM for ANOVA was used to explore the omnibus test of difference in mean scores. Although the KLLDS scores increased over time, there was no difference in average KLLDS scores measured at the three time points: pre-test = 6.25(1.25); post-test = 6.28(1.36); and follow-up = 6.71(0.99); p=0.5065. The range of KLLDS scores increased slightly between from pre-

test (3.0, 8.0), post-test (5.0, 7.0), and follow-up (5.0, 8.0). Scores for the additional 7 items increased between pre-test = 3.45(1.05) and post-test = 3.67(0.84), but decreased at follow-up = 3.14(0.86), with no statistically significant differences (p=0.2978). The scores ranged from 1-4 pre-test, from 3 to 4 post-test, and from 2 to 4 at 2-week follow-up.

#### **Discussion**

This pilot demonstrates that care partner education is feasible and that a psychiatric nurse is able to readily provide education on depressive symptoms. Given that stroke patients may be discharged with varied levels of independence, targeting education to care partners may reduce patient stress (Pucciarelli et al., 2019). While the study was not powered to detect a statistically significant difference in pre-test versus post-test scores, the available data suggests that care partners did benefit from the educational intervention.

Looking for a scale that would fit our study on accessing care partner's knowledge on recognizing signs and symptoms of depression on post stroke patients was challenging. Most PSD education is targeted to educate the patient. To our knowledge, the KLLDS has not been tested to assess stroke care partner depression knowledge. During the process we found that KLLDS, which it was not specific to the post-stroke depression study, was able access some of the care partner's knowledge about depression, yet it fell short of capturing the overlap of stroke and depressive symptoms. The efficacy of the KLLDS administration over the phone was not found in the literature and may need further inquiry.

There was a trend towards older adults demonstrating a better understanding of the symptomology of depression than younger care partners. It is possible that the older care partners have already received education on depression in later life and had a stronger baseline knowledge of the symptoms. This suggests that younger care partners of stroke survivors may need additional education as they are not as in tune to the symptoms associated with stroke and depression.

Education of overlap of post-stroke and depressive symptoms is important. Education is usually provided by the nurse assigned to care for the patient. It may make sense for this education to be provided by someone with training in psychiatric disorders and depression symptom recognition. In modern nursing, no nurse can truly be a specialist in every discipline. The concept of nurses from one specialty collaborating with nurses from another specialty is not new. Moreover, physicians frequently consult specialty services from other physicians. However, it is novel for nurses with neuroscience training to consult and delegate education to nurses with psychiatric training. Future research is needed to compare nurses and care partners' knowledge of post-stroke depression to truly understand if a nurse specializing in psychiatric disorders is needed to provide this type of education.

#### Limitations

The limitation of this pilot study included 30% lost to follow-up. This may have been due to the close time parameter around the follow up phone call, as two weeks after the patient discharges can still be a fairly hectic time for care partners. Additionally, the sample size of this pilot study is relatively small, and therefore the generalizability of the results is limited. The absence of a scale that has been validated to understand knowledge of post-stroke depression knowledge in care partners is a major limitation. Additional items were added to the pre-test and post-test and scored independently from the KLLDS. Additional scale development is needed to evaluate PSD knowledge in care partners.

#### Conclusion

To our knowledge this is the first study to demonstrate a benefit to PSD education delivered by psychiatric nurses focusing on the educational needs of care partners. This study demonstrates the potential for nurses to collaborate to provide education to care partners and also that education with a two week follow up maybe efficacious in showing differences in knowledge. Future research is needed to determine how to best educate and evaluate care partners of stroke on depressive symptoms.

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RESEARCH ARTICLE

### Relationship between Health Literacy and Health-Promoting Behaviors among Teen Pregnant Mothers

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#### **Abstract**

**Background:** Teenagers who became pregnant face many pregnancy difficulties as they are less likely to have enough physical development to withstand a healthy pregnancy or to give birth. Thus, health literacy and the promotion of healthy behavior among pregnant mothers are of paramount importance. This study is aimed to assess the relationship between health literacy and health-promoting behaviors among the selected teen pregnant mothers in attaining maternal health.

**Methods:** Descriptive-correlational design was employed in this study. A total of 46 respondents participated in the study through a purposive sampling technique. The research instruments used were the Adolescent Health Promotion Scale and Comprehensive Short-form Health Literacy Survey Tool for Patients in General. Frequency, percentage, descriptive mean, and Spearman Rank Correlation were used to analyze the data gathered.

**Results:** Results showed that teen pregnant mothers have high levels of health literacy (n=2.16) but with low levels of health-promoting behavior (n=3.45). Lastly, it was found out these variables were statistically non-significant (rs (47) = -.127, p = 0.393) to each other.

**Conclusion:** The study found out that there is no significant relationship between health literacy and health-promoting behaviors among teen pregnant mothers.

Keywords: Health literacy, health-promoting behaviors, maternal health, teen pregnant mothers

#### Introduction

he World Health Organization (WHO) defined adolescence as those aged 10 to 19, and youth as those between 15 and 24 years old. Young people are terms that cover both age groups (WHO, 2010). Teenagers who become pregnant face many pregnancy difficulties like the other women related to issues of pregnancy. However, there are additional concerns for those 15 years of age as they are less likely to have attained sufficient physical development to withstand a healthy pregnancy or to give birth (WHO, 2010). As a pregnant mother, health literacy is an important aspect in order to attain maternal health and wellness (Ghanbari, Majlessi, Ghaffari, & Mahmoodi-Majdabadi, 2012; Viboonwatthanakitt, Pancharean & Tipalonkot, 2007). Maternal health literacy is defined as the cognitive and social skills determining the ability to get access to, understand, and use the information to promote mothers' health and that of their children. Maternal health literacy is important because antenatal care is the first exposure of many women to the healthcare system (Ghanbari et al., 2012). Promoting healthy behavior among pregnant mothers, on one hand, aims to encourage the development of healthy adult lifestyles and thereby reduce the risk of morbidity and mortality (Walker & Townsend, 1999). Teenagers are acknowledged to be at high risk in the following: 1) smoking, 2) teenage pregnancy, and 3) drug and alcohol use (Walker & Townsend, 1999). Additionally, the recognition of high levels of psychological distress is a cause for serious concern about teenage health (Walker & Townsend, 1999). Even there are studies regarding health literacy and healthpromoting behaviors, seem to primarily focus on individual assessment of these variables. This study aimed to assess the relationship between health literacy and health-promoting behaviors among the selected teen pregnant mothers in attaining maternal health.

#### **Methods**

#### Research Design

Descriptive-correlational design was used in this study to determine the relationship health-promoting behaviors of pregnant mothers with their health literacy.

#### Population and Sampling Technique

The G power 3.1.9.4 software was used to identify the total population needed for the study. It yielded 42 sample size with alpha error of 0.05 with a 0.95 confidence and an actual power of 0.9545279. A total of 46 respondents participated in the study via purposive sampling (Polit & Beck, 2008; Burns & Groove, 2011) with the following criteria (1) A teenage pregnant mother (2) resides at Systems Plus College Foundation-College of Nursing adopted community, (3) regardless of trimester

of pregnancy, (4) regardless of her gravida, (5) 13-19 years of age, and (6) willing to participate. The context of the study was conducted in one of the resettlement areas in Pampanga, Philippines where majority of people are indigent and has poor socioeconomic status. In addition, this area has limitation in their access to health care.

#### **Research Instruments**

The study utilized two questionnaires: 1) Adolescent Health Promotion Scale and 2) Comprehensive Short-form Health Literacy Survey Tool. The Adolescent Health Promotion Scale developed by Tomás, Queirós, and Ferreira (2015) with a Cronbach Alpha results of 0.932. This instrument contains 12 questions under a 4-point Likert scale wherein the score of 4 means very difficult and score of 1 means very easy. On the other hand, Comprehensive Short-form Health Literacy Survey Tool for Patients in General developed by Huang et al. (2017) with a Cronbach Alpha result of 0.87. This contains 40 questions with 5-points Likert scale in which 5 means always implemented (81-100%) and 1 means never implemented (1-10%). Further, permissions were secured from the authors. Since the instruments were generally made for general population or in various groups of samples in relation to health promoting behaviors and health literacy, likewise, it is applicable also for pregnant mothers. In addition, these instruments had undergone translation process in English and Filipino using backward and forward translation twice and were validated by experienced Filipino instructors teaching in colleges and universities. Moreover, pilot testing was made in one of the communities of Pampanga which is not under the context of the study to assess its reliability before the data collection was made. It yielded a Cronbach's alpha result of 0.86 (Adolescent Health Promotion Scale) and 0.91 (Comprehensive Short-form Health Literacy Survey Tool) for both translated instruments respectively.

#### **Ethical Considerations**

The ethics review was approved by Our Lady of Fatima University (OLFU) Institutional Ethics Review Committee (IERC) in order to assess the ethical considerations regarding human participants with a protocol number of 2018-IERC1-20250V2. In addition, a letter of permission was secured from the Barangay Captain as well as the rural health midwife of as part of our courtesy call before the conduction of the study to the target area. Consent was given by the participants prior to data collection. For participants who are less than 18 years old, an assent form was provided which is proof that they are willing to participate. Further, permission was sought also from their parents. It is also included in the instructions to withdraw during the conduction of the study anytime without any penalty. Likewise, the utmost confidentiality and anonymity were exhibited in this study by not revealing the names of the participants rather these were replaced by pseudonyms. All of the collected survey questionnaires were stored in a locked cabinet where we only have the access. We tallied and validated the tabulation twice before it was sent to the statistician for its analysis. Questionnaires were destroyed using a paper shredder and were disposed of properly 6 months after the full paper made as part of our research protocol.

#### **Data Analysis**

For the data analysis, we used the Statistical Package for Social Sciences version 21 with the following: Frequency, percentage, descriptive mean, and Spearman's Rank Correlations.

#### **Results**

Table 1 presents the demographic profile of the respondents. As shown, forty-seven (47) adolescents participated in the study. Most of the participants belong to the age group of 18 years old (n=13, 28%). Most of them are under high school undergraduate (n=17, 36%) and unemployed (n=39, 83%). A greater proportion of the participants are currently in their 3rd trimester (n=39, 83%).

Table 1. Demographic Profile of the Participants

| Characteristics           | n  | Percentage | Characteristics               | n  | Percentage |
|---------------------------|----|------------|-------------------------------|----|------------|
| Age in Years              |    |            | <b>Educational Attainment</b> |    |            |
| 14                        | 3  | 6          | Elementary Undergraduate      | 8  | 17         |
| 15                        | 2  | 4          | Elementary Graduate           | 5  | 11         |
| 16                        | 11 | 23         | High school Undergraduate     | 17 | 36         |
| 17                        | 12 | 26         | High school Graduate          | 5  | 11         |
| 18                        | 13 | 28         | Senior High school            | 9  | 19         |
| 19                        | 6  | 13         | College Undergraduate         | 3  | 6          |
|                           |    |            | College Graduate              | 0  | 0          |
| Terms of Pregnancy        |    |            | <b>Employment Status</b>      |    |            |
| 1st trimester             | 1  | 2          | Unemployed                    | 39 | 83         |
| 2 <sup>nd</sup> trimester | 7  | 15         | Self-employed                 | 2  | 4          |
| 3 <sup>rd</sup> trimester | 39 | 83         | Employed                      | 6  | 13         |

Table 2 presents the self-evaluated health literacy level of the teenage pregnant mothers. Most of the participants got an overall mean score of 2.16 (Fairly Easy) on Health literacy.

Table 2. Self-Evaluated Health Literacy of the Participants

| •   | •    |       |     |     |             |
|---|------|-------|-----|-----|-------------|
| INDICATORS  | Mean | SD    | Max | Min | Description |
| Find information on treatments of illnesses that concern you?                       | 2.36 | .705  | 4   | 1   | Fairly Easy |
| Understand that leaflets that come with your medicine?                              | 2.45 | .775  | 4   | 1   | Fairly Easy |
| Judge the advantages and disadvantages of different treatment options?              | 2.51 | .748  | 4   | 1   | Fairly Easy |
| Call an ambulance in an emergency   | 2.28 | 1.015 | 4   | 1   | Fairly Easy |
| Find information on how to manage mental health problems like stress or depression? | 2.60 | .851  | 4   | 1   | Fairly Easy |

| INDICATORS   | Mean | SD   | Max  | Min | Description |
|--|------|------|------|-----|-------------|
| Understand why you need health screenings (such as breast exam, blood sugar test, blood pressure)?                       | 2.47 | .929 | 4    | 1   | Fairly Easy |
| Judge which vaccinations you may need?   | 2.00 | .933 | 4    | 1   | Fairly Easy |
| Decide how you can protect yourself from illness based on advice from family and friends?                                | 2.17 | .868 | 4    | 1   | Fairly Easy |
| Find out about activities (such as mediation, exercise, walking, pilates etc.) that are good for your mental well-being? | 2.00 | .780 | 4    | 1   | Fairly Easy |
| Understand information in the media (such as internet, newpaper, magazines) on how to get healthier?                     | 2.02 | .897 | 4    | 1   | Fairly Easy |
| Judge which everyday behavior (such as drinking and eating habits, exercise etc.) is related to your health              | 1.79 | .750 | 3    | 1   | Very Easy   |
| Join a sports club or exercise class if you want to?   | 1.74 | .765 | 3    | 1   | Very Easy   |
| Overall  | 2.16 | 0.83 | 3.83 | 1   | Fairly Easy |

Table 3 depicts the health-promoting behavior of teenage pregnant mothers. As glean on the table, most of the participants got an overall mean score of 3.45 (Sometimes) on Health behavior.

**Table 3.** Self-evaluated Health Promoting Behavior of the Participants

| INDICATORS   | Mean | SD    | Max | Min | Description    |
|--|------|-------|-----|-----|----------------|
| As three meals a day (breakfast, lunch and dinner).  | 4.40 | .948  | 5   | 2   | A lot of times |
| Choose foods without too much oil.   | 2.83 | .842  | 5   | 1   | Few            |
| I include dietary fiber in my diet (eg fruits or vegetables).  | 3.38 | 1.190 | 5   | 1   | Sometimes      |
| Drink at least 1.5 L of water per day (or 6-8 glasses).  | 3.81 | 1.154 | 5   | 1   | Sometimes      |
| I include five food groups at each meal (eg<br>bread, meat or fish, dairy products, fruit and<br>vegetables) | 3.89 | .961  | 5   | 1   | Sometimes      |
| I eat breakfast every day.   | 3.91 | 1.176 | 5   | 1   | Sometimes      |
| I share and tell about my feelings with others.  | 3.21 | 1.284 | 5   | 1   | Sometimes      |
| I care about other people.   | 3.72 | 1.192 | 5   | 1   | Sometimes      |
| I talk about my concerns with others.  | 3.11 | .787  | 4   | 1   | Sometimes      |
| Every day I struggle to smile or laugh.  | 3.38 | .968  | 5   | 1   | Sometimes      |
| I like to keep in touch with my family.  | 4.43 | .853  | 5   | 3   | A lot of times |
| I make an effort to have good friendships.   | 4.11 | 1.184 | 5   | 1   | A lot of times |
| I talk about my problems with others.  | 2.79 | .858  | 4   | 1   | Few            |
| When shopping, I read labels on food packaging.  | 3.13 | 1.312 | 5   | 1   | Sometimes      |
| I watch over my weight.  | 2.81 | 1.362 | 5   | 1   | Few            |

| INDICATORS   | Mean | SD    | Max  | Min  | Description    |
|--|------|-------|------|------|----------------|
| Discuss my health concerns with a doctor or                            | 3.02 | 1.260 | 5    | 1    | Sometimes      |
| nurse. I watch my body at least once a month.                          | 3.11 | 1.306 | 5    | 1    | Sometimes      |
| I brush my teeth at least twice a day and use                          |      |       |      | •    |                |
| dental floss daily.  | 3.68 | 1.431 | 5    | 1    | Sometimes      |
| I wash my hands before meals.  | 4.15 | 1.318 | 5    | 1    | A lot of times |
| I read health information.   | 3.57 | 1.638 | 5    | 1    | Sometimes      |
| I make an effort to choose foods without preservatives.                | 3.34 | 1.006 | 5    | 1    | Sometimes      |
| I make an effort to like myself.                                       | 3.98 | 1.359 | 5    | 1    | Sometimes      |
| I make an effort to feel happy and content.                            | 3.87 | 1.172 | 5    | 1    | Sometimes      |
| Normally, I think positively   | 3.53 | .929  | 5    | 1    | Sometimes      |
| I make an effort to understand and accept my strengths and weaknesses. | 3.30 | 1.267 | 5    | 1    | Sometimes      |
| I make an effort to correct my faults.                                 | 4.09 | 1.158 | 5    | 1    | A lot of times |
| I make an effort to know what is important to me.                      | 3.98 | .921  | 5    | 2    | Sometimes      |
| I make an effort to feel interested and challenged every day.          | 3.34 | 1.147 | 5    | 1    | Sometimes      |
| I make an effort to believe that my life has a purpose.                | 3.47 | 1.080 | 5    | 1    | Sometimes      |
| I stretch every day.   | 2.87 | 1.191 | 5    | 1    | Few            |
| I exercise vigorously for 30 minutes at least 3 times a week.          | 2.51 | .975  | 5    | 1    | Few            |
| I participate in Physical Education classes at school weekly.          | 2.62 | 1.208 | 5    | 1    | Few            |
| I warm up before vigorous exercise.                                    | 2.62 | 1.609 | 5    | 1    | Few            |
| I make an effort to be upright when I am standing or sitting.          | 3.87 | 1.154 | 5    | 1    | Sometimes      |
| I make an effort to spend some time relaxing every day.                | 4.21 | .931  | 5    | 3    | A lot of times |
| I make an effort to determine the source of my stress.                 | 2.89 | 1.238 | 5    | 1    | Few            |
| I make an effort to observe my mood swings.                            | 3.32 | 1.065 | 5    | 1    | Sometimes      |
| I sleep 6 to 8 hours every night.                                      | 3.81 | 1.313 | 5    | 1    | Sometimes      |
| I make plans of activities and establish priorities.                   | 3.49 | 1.266 | 5    | 1    | Sometimes      |
| I try not to lose control when unfair things happen.                   | 3.32 | 1.086 | 5    | 1    | Sometimes      |
| Overall  | 3.45 | 1.15  | 4.95 | 1.15 | Sometimes      |

Table 4 depicts the result of Spearman's rank-order correlation regarding health literacy and health-promoting behavior. It reveals that there was a strong, negative correlation between health literacy and health-promoting behavior of teenage pregnant mother, but this was not statistically significant (rs (47) = -.127, p = .393).

 Table 4. Relationship between Health Literacy and Health Promoting Behaviors of Teen Pregnant Mothers

| R Coefficient | P Value | Interpretation  |
|---------------|---------|-----------------|
| -0.127        | 0.393   | Not Significant |

<sup>\*</sup>p value is significant at 0.05 level

#### Discussion

The result of self-evaluated health literacy among teen pregnant mother falls on "fairly easy". This denotes that most of them did not find difficulties in obtaining, processing, and understanding the basic health information and services needed to make appropriate health decisions. This may be linked to the study conducted by Renkert and Nutbeam (2001) wherein they stressed that maternal health literacy is a life skill that mothers use to manage personal, child health and healthcare. It has been defined as the cognitive and social skills that determine the mother's motivation and ability to act on information in ways that improve health. Health literacy on the other definition is a skill that enables the mother to minimize risk, maximize protective factors, and optimize health promotion. In this way, a mother's health literacy forms the foundation for her health and her child's health throughout their lives (Ghanbari et al., 2012). It is essential for the mother because based on a study; low health literacy among pregnant mothers has an impact to their health outcome even with their children (Azugbene, 2017; Ivanova et al., 2017; Lee, 2016). That is why health literacy is important since it prepares the mother for parenthood leading to self-efficacy in taking care of her newborn (Lee, Murry, Ko, & Kim, 2018).

Based on the result of the study, teenage pregnant mothers understand their condition and they use the information they acquired from healthcare providers to attain health and wellness not only for them but also for their newborn child. It is also noted that self-evaluated health-promoting behaviors of teen pregnant mothers claimed that sometimes they execute these activities. These depict that most of them either may or may not express perceived control over their health and its determinants. These imply that not all of the pregnant mothers even having their follow-up check-up still having problems when it comes to their compliance in maintaining their self-care behavior which can be the cause of being high-risk during their pregnancy period or even upon actual parturition. Health-promoting behaviors among pregnant women likewise is an essential indicator of their health status (Fathnezhad-Kazemi & Hajian, 2019) especially when the mother achieves her and the baby's desired health outcomes during the period of pregnancy (Fathnezhad-Kazemi, Hajian, Ebrahimi-Mameghani, & Khabaz Khob, 2017). However, some pregnant mothers are resistant when it comes to their accustomed behaviors (Olander, Smith, & Darwin, 2018). Therefore, it is highly recommended that nurses and even health care providers are important partners of pregnant women in order to achieve their anticipated health promoting behaviors (Lin et al., 2009).

Lastly, it was found out that health literacy and health-promoting behaviors are Nonsignificant. This implies that health literacy does not affect the teenage pregnant mother's health-

promoting behaviors probably because the health care providers diligently monitored their clients in the health maintenance upon the first-time clinical check-up up to their parturition despite the fact that these people have poor access to quality healthcare. Self-care behaviors are also important and necessary for pregnancy among teenagers (Viboonwatthanakitt et al., 2007). On the other hand, maternal health literacy is significant because the information starting from the antenatal care is important among teen pregnant mothers as part of the execution of the healthcare system toward health advocacy (Ghanbari et al., 2012) which is necessary for the full participation of the stakeholders in their everyday life (Renkert & Nutbeam, 2001).

#### Conclusion

The study found out that there was no significant relationship between health literacy and health-promoting behaviors among teen pregnant mothers. Although, most of them know already the consequences of abiding the advocacy of health care providers among pregnant mothers, some of them have not appropriately executed these activities despite the adequacy of their literacy. Therefore, health care providers must continue their diligence in encouraging health promotion as part of the information and education campaign (IEC) among pregnant mothers in order to attain maternal and child health not only during pregnancy but also upon parturition and post-partum periods. Likewise, another study can be conducted since it was done in one resettlement community and the respondents are limited to a small scale only.

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RESEARCH ARTICLE

## Disaster Risk Reduction Knowledge among local people in a Selected Community in the Philippines

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#### **Abstract**

**Background:** The Philippines has been classified as highly vulnerable to natural disasters. Hence, reinforcing the capacities of communities towards the risk and adverse impacts of natural hazards is essential in order to reduce vulnerability and managed disasters. The study assessed disaster-related knowledge including (1) disaster preparedness and readiness, (2) disaster adaptation, (3) disaster awareness, and (4) disaster risk perception of the local people in a selected community.

**Methods:** A descriptive-cross sectional study was utilized and a convenience sampling technique was used to select the 60 participants. The disaster risk reduction knowledge was assessed using the Disaster Risk Reduction Knowledge questionnaire. The gathered data were analyzed using frequency, percentage, mean, standard deviation and univariate linear regression.

**Results:** The study revealed that the local people in the selected community have good knowledge on disaster preparedness and readiness, disaster adaptation, and disaster awareness and fair knowledge on disaster-related knowledge and disaster risk perception. Further, age, sex, civil status, and education did not predict the level of disaster risk reduction knowledge.

**Conclusion:** The initiatives for disaster education in the Philippines are sufficient as evidenced by a good level of disaster risk reduction knowledge among the local people in the selected community.

**Keywords:** Disaster risk reduction knowledge, natural disaster, peacebuilding

#### Introduction

eacebuilding as defined by Wyeth (2011) refers to strategies that promotes transformation of society by reducing the vulnerabilities, addressing the root causes of conflict, building the capacities of society, and developing institutions to manage conflict. One example is the occurrence of natural disasters which showed an incessant increase during the last decades (Harries, Keen & Mitchell, 2013). The Global Climate Risk Index (2013), revealed that the most affected countries in 2011 were Thailand, Cambodia, Pakistan, El Salvador and the Philippines (Harmeling & Eckstein, 2012). Thus, the index reconfirms that developing countries are more affected than developing ones not simply because of the geographical location but due to their vulnerability to risks. Vulnerability as defined by United Nations International Strategy for Disaster Reduction (UNISDR, 2009), refers to the characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard.

The Philippines is known to be highly vulnerable to natural disasters ranking third out of 173 countries in terms of vulnerability to disaster risk (United Nations University- Institute for Environment and Human Security, 2011). Disaster risk is expressed in terms of potential loss of lives, deterioration of health status and livelihoods, and potential damage to assets and services due to impact of existing natural hazard. (Tuladhar, Yatabe, Dahal, & Bhandary, 2015). Hence, the country placed special emphasis on minimizing disaster risk by developing strategies for Disaster Risk Reduction (DRR). DRR is a systematic approach to identify, assess and reduce disaster risk (Onstada et al., 2012) and avert the unfavorable effects of natural disasters, facilitating a sustainable development process. The Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (HFA) serves as the global blueprint for disaster risk reduction (DRR) efforts. Further, it plays an integral part in managing disasters by reinforcing the capacities of communities towards the risk and adverse impacts of natural hazards (Saño, 2010).

HFA states that all countries must use knowledge, innovation, and education to build a culture of safety and resilience at all levels (Tuladhar et al., 2015). Thus, as one of the countries who agreed in the implementation of HFA, the Philippines passed the Republic Act 10121 or the Philippine Disaster Risk Reduction Management Act also known as DRRM Act in order to show its commitment in promoting and implementing measures for DRR. One of the features of the DRRM Act focuses on an integrated, coordinated, multi-sectoral, inter-agency and community-based approach to disaster risk reduction (Saño, 2010), hence, the role of the local communities in disaster risk reduction cannot be undermined since they are most familiar with their situation. Further, when a disaster occurs, it is the people at the community level who suffer most of its adverse effect (Victoria, 2003). Hence, in order to substantially reduced disasters, people should be well informed and motivated about measures that they can take to reduce vulnerability and adverse effects.

Thus, the study was conducted in order to assess the disaster-related knowledge, disaster preparedness and readiness, disaster adaptation, disaster awareness and disaster risk perception of the local people in selected community.

#### **Methods**

#### Research design and Sampling Technique

The study utilized a cross-sectional research as the study design to determine the disaster risk reduction knowledge of the participants in the select community. Further, convenience sampling was used to select the respondents of the study.

#### Participants of the study

In the study, a total population sampling was utilized however, only sixty (60) participants agreed to participate and answered the survey questionnaire. The participants included members of the selected community in Taytay, Rizal who were either male or female, aged 18 years old and above, those who have been living in the community for more than 12 months and those who agreed to participate in the study.

#### Measurement and Instrumentation

The study utilized a two-part questionnaire to measure the disaster risk reduction knowledge of the participants. The first part includes a personal information sheet which contains the participants' age, sex, civil status, and educational attainment, whereas the second part will contain the Disaster Risk Reduction Knowledge questionnaire developed by Tuladhar et al. (2015). This is a five-point Likert scale questionnaire consisting of 20 items divided into five subscales: disaster-related knowledge, disaster preparedness and readiness, disaster adaptation, disaster awareness and disaster risk perception. The said instrument was cross culturally adapted and translated following the World Health Organization guideline (WHO, n.d. as cited by Soriano & Calong Calong, 2019). The Item-Content Validity Index (I-CVI) ranged from 0.88 to 1.0 while the Scale-Content Validity Index (S-CVI) of the tool was 0.92 which makes the translated tool content valid (Polit & Beck, 2006 as cited by Soriano, 2019). For the internal consistency reliability, the over-all Cronbach's alpha coefficient of the tool was 0.892 whereas the subscales namely: disasterrelated knowledge, disaster preparedness and readiness, disaster adaptation, disaster awareness and disaster risk perception had a Cronbach's alpha of 0.70, 0.748, 0.758, 0.718 and 0.70 respectively which met the minimum criteria set by Polit and Beck (2014 as cited by Soriano & Calong Calong, 2019).

#### **Ethical Considerations**

The study conformed with the ethical standards of conducting research involving human participants. Also, the ethical clearance was secured from San Beda University-Research Ethics Board.

#### **Data Analysis**

The data gathered was analyzed using frequency, percentage, mean and standard deviation. Univariate linear regression was also used to determine the effect of demographic characteristics with the disaster-risk reduction knowledge among the participants.

#### Result

Table 1 shows the demographic profile of the participants. Based on the results, the mean age of the participants was 33.4 (±13.27), while majority of them were females (65%), married (50%) and was able to finish high school education (53.35%).

**Table 1.** Demographic Profile of the Participants (n = 60)

| Characteristics      | Frequency (f) | Percentage (%) | Mean (SD)     |
|----------------------|---------------|----------------|---------------|
| Age (Years)          |               |                | 33.4 (±13.27) |
| Sex                  |               |                |               |
| Male                 | 21            | 35%            |               |
| Female               | 39            | 65%            |               |
| Civil Status         |               |                |               |
| Single               | 26            | 43.3%          |               |
| Married              | 34            | 56.7%          |               |
| Education            |               |                |               |
| Elementary Graduate  | 25            | 41.7%          |               |
| High School Graduate | 35            | 58.3%          |               |

As shown in Table 2, the mean disaster-risk reduction knowledge of the participants is  $3.64 \pm 0.74$ ) which can be interpreted as good. The mean disaster preparedness and readiness, disaster adaptation and disaster awareness knowledge fall between 3.63 and 4.16 which denotes a good level of knowledge. On the other hand, the mean disaster-related knowledge and mean disaster risk perception knowledge was 3.31 and 3.07 which can be interpreted as fair knowledge.

 Table 2. Descriptive Statistics of Disaster-Risk Reduction Knowledge (n = 60)

|                                     |                                     | Mean                          | Standard<br>Deviation | Interpretation <sup>a</sup> |  |  |
|-------------------------------------|-------------------------------------|-------------------------------|-----------------------|-----------------------------|--|--|
| Disaster-Risk Reduction Knowledge   |                                     | 3.64                          | ±0.74                 | Good                        |  |  |
| Disaster-re                         | elated knowledge                    | 3.31                          | ±1.15                 | Fair                        |  |  |
| Disaster p                          | reparedness and readiness           | 4.16                          | ±0.78                 | Good                        |  |  |
| Disaster a                          | Disaster adaptation 3.63 ±0.93 Good |                               |                       |                             |  |  |
| Disaster a                          | Disaster awareness                  |                               | ±0.93                 | Good                        |  |  |
| Disaster risk perception 3.07 ±1.09 |                                     | Fair                          |                       |                             |  |  |
| <sup>a</sup> Legend:                | No Knowledge = 1.00 to 1.79         | Poor Knowledge= 1.80 to 2.59  |                       |                             |  |  |
|                                     | Fair Knowledge= 2.60 to 3.39        | Good Knowledge = 3.40 to 4.19 |                       |                             |  |  |
| Excellent Knowledge = 4.20 to 5.00  |                                     |                               |                       |                             |  |  |

Table 3 shows the influence of the demographic profile with disaster-risk reduction knowledge. It was revealed that the identified demographic profiles did significantly predict the disaster-risk reduction knowledge of the local people in the selected community.

**Table 3.** Univariate linear regression of Disaster-Risk Reduction Knowledge (n = 60)

|                            |           | Source          | В      | SE B  | β      | t      | р     | R<br>squared |
|----------------------------|-----------|-----------------|--------|-------|--------|--------|-------|--------------|
| Disaster-risk<br>knowledge |           | Age             | 0.012  | 0.008 | 0.208  | 1.616  | 0.112 | 0.043        |
|                            | reduction | Sex             | -0.125 | 0.212 | -0.077 | -0.586 | 0.560 | 0.006        |
|                            | reduction | Civil<br>Status | 0.179  | 0.166 | 0.140  | 1.078  | 0.286 | 0.020        |
|                            |           | Education       | -0.154 | 0.175 | -0.115 | -0.878 | 0.383 | 0.013        |

#### **Discussion**

The study aimed to determine the disaster risk reduction knowledge among the local people in the selected community in terms of disaster related knowledge, disaster preparedness and readiness, disaster adaptation and disaster risk perception. The findings revealed that local people in the selected community have a good knowledge in terms of disaster awareness. The result may be related to the experiences of Filipinos in several disasters that struck the country includes the Bohol earthquake and Typhoon Haiyan in 2013. Further, the Philippine government has made important changes in terms of managing disasters. According to UNISDR (2009), the Philippines collected comprehensive and updated risk information with the use of modern technologies and techniques.

Another possible reason is the involvement of the community in disaster preparedness and mitigation programs. Zubir & Amirrol (2011) highlighted that communities must be aware of the

importance of disaster reduction for their own well-being. Measures to develop essential skills that can translate risk awareness into concrete practices of sustained risk management becomes a necessity. Further, several studies have revealed that the approach to disaster mitigation is becoming more and more community-based (Begg, Haines & Hurlbert, 1996; Blaikie, Cannon, Davis, & Wisner, 1994; Twigg, 1999; Quarantellu, 1989; Mileti, 2001) and considerable amount of work effort has been done in order to incorporate aspects of disaster management into the holistic development of communities.

Community involvement in disaster preparedness and mitigation has also been shown to become an effective measure of reducing vulnerabilities (Victoria, 2003; Abinales, 2002; Hejimans & Victoria, 2001). It can be shown in the results that the local people in the selected community has a good level of knowledge in terms of disaster preparedness and readiness. However, according to Victoria (2003), local communities cannot reduce vulnerabilities on their own and a strong mitigation measures and collaborative action among multiple-stakeholders from various disciplines and levels of the disaster management and development planning system are necessary.

In 2010, the Philippines promulgated the Republic Act 10121 or the Philippine Disaster Risk Reduction Management Act, which strengthens the management of disaster risk through disaster risk governance. Under this law, the Philippine Disaster Risk Reduction Management Act has been created with the National Disaster Risk Reduction and Management Council (NDRRMC), as the highest decision-making body. It comprises of members from different departments, government agencies, LGUs, Civil Society Organizations and private sector. A vertical coordination consisting of multi-tiered bodies comprising of Disaster Risk Reduction and Management Office (DRRMO) in every province, city, municipality and down to the Barangay or community level with the Barangay Disaster Risk Reduction and Management Committee (BDRRMC).

Overall, the disaster risk reduction knowledge of the local people in the selected community was rated as good. This can be attributed to the continuous information dissemination campaign made by the government in partnership with school, universities and communities such as the conduct of earthquake and fire drill. Further, the DRRM is also integrated in the basic education framework and college curriculum.

Despite positive results, the major limitation of the study is the number of samples which limits its generalizability. However, the major contribution of this research is the significant measures taken by the government in order to integrate disaster preparedness and mitigation not only in the school curriculum but also in the community level.

#### Conclusion

The initiatives for disaster education in the Philippines are sufficient as evidenced by good level of disaster risk reduction knowledge among the local people in the selected community.

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**Gil P. Soriano, MHPEd, RN** earned his Bachelor of Science in Nursing degree from Pamantasan ng Lungsod ng Pasay and his Master of Health Profe ssions Education from the University of the Philippines Manila under a UP Presidential Scholarship Grant. Currently, he is the Level 3 Coordinator and Community Coordinator of San Beda University-College of Nursing. He has presented researches in various national and international research fora and has published a number of research articles in reputable/indexed journals focusing on Public Health, Caring Science, and Nursing Pedagogy.

RESEARCH ARTICLE

# Assessment of Perceived Healthcare Access in a Rural Community in Rizal: A Cross-sectional Study

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#### Abstract

**Background:** Access to health care is considered a basic right and integral to human life. However, this still remains a challenge especially in developing countries where the majority of the poor reside and suffer from a disproportionate amount of disease. The study determined the six key components of health care access: approachability, availability, accessibility, affordability, acceptability, and accommodation, as perceived by a rural community in Taytay, Rizal, Philippines.

**Methods:** This descriptive-cross sectional study included a convenience sample of 62 participants. The Perceived Access to Health Care Instrument was utilized. Frequency, percentage, mean, standard deviation, and univariate linear regression were used to analyze the data.

**Results:** The study revealed that health care access was rated as good in terms of approachability, availability, affordability and acceptability. On the other hand, accessibility and accommodation was rated as fair. It was also revealed that none of the demographic profiles significantly predicted the perceived access to health care

**Conclusion:** Assessment of health care access is an important measure of health care equity and despite several factors previously shown to affect health care access, the results of this study showed that the participants have good access to health care in their community.

**Keywords:** Healthcare services, perceived access, rural community

#### Introduction

he 1946 constitution of the World Health Organization (WHO) states that "the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition. The health of all people is fundamental to the attainment of peace and security and is dependent upon the fullest cooperation of individuals and states" (p. 1). These statements magnify the link between peace and health especially with the acceptance of peace as a social determinant of health in the 1980s and the connection can be interpreted as bidirectional and dynamic in nature (Canadian Nurses Association [CNA], 2009), one cannot exist without the other. Thus, the concept of "peace through health programs" coined by Santa Barbara and MacQueen (2000), refers to "any initiative that is intended to improve the health of a population and to simultaneously heighten that population's level of peace and security."

The Universal Declaration of Human Rights (UDHR) Article 25 states that "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services...." The declaration asserts that health is an important goal of human rights and integral to the right to life (Perry, Fernandez & Puyana, 2015). Thus, it is the responsibility of the state to provide basic health services to its citizenry without prejudice to their social status, race, religion, etc. This paved the way to the development and implementation of public health programs with the goal of improving the health of people and communities.

An individual's access to healthcare as defined by Levesque, Harris and Russell (2013) is the opportunity to identify healthcare services and to actually have a need for services fulfilled. Galama and van Kippersluis (2013) added that having access to effective healthcare is considered a fundamental component of human capital that ensures healthy living, general well-being and good quality of life. However, data from the World Health Organization (2017) revealed that at least half of the world's population cannot obtain essential health services. A report by Wan and Francisco (2009) on the access of basic services in the developing countries in Asia stated that health services fail to reach majority of the poor, who suffer from a disproportionate amount of disease. Further, Dalton and Peacock reported that poor households are five times more likely to become sick than richer households and are less likely to receive basic health services (Peters et al., 2008; Barat et al., 2004; Pillai et al., 2003). Yazbeck et al. (2005) and Wagstaff (2002) added that poor children are usually less likely to be fully immunized even in countries where national immunization programs are in place.

According to the Institute for Economics & Peace (2018), "peaceful countries tend to ensure equity in access to resources such as education, health..." (p. 8). However, literatures have revealed that marginalized and vulnerable groups are facing challenges with access to healthcare which in turn can affect one of the eight pillars of peace which is equitable distribution of resources and

ultimately the sustainable development goals.

In the Philippines, Filipinos suffer from dismal access to health services where eight out of ten people reported to have never undergone a medical examination (Van Gijsel, 2016). Further, the current doctor to patient ratio is 1:33, 000 which is significantly higher than the global average of 1:6, 600 (Pennington, 2019). These only highlights that the delivery of basic health services remains a challenge in developing countries like the Philippines. Thus, the study was conducted to determine the perceived access to healthcare among residents in a rural area in Rizal in terms of approachability, availability, accessibility, affordability, acceptability and accommodation of healthcare services.

#### Methods

#### Study Design and Sampling Technique

The study utilized a cross-sectional research design in order to determine the perceived access to healthcare among the participants in a rural area of Rizal, Philippines. The area is situated inside a subdivision owned by a renowned real estate developer in the Philippines and the lots were donated to the local people living in the community. The said area was selected since it is the adopted community of a College of Nursing in Manila. In order to select the participants, a convenience sampling design was used and a total of 62 participants were recruited. The data were collected from November 2019 to December 2019.

#### Participants of the Study

The participants included community members in a rural area in Taytay, Rizal, Philippines who are 18 years old and above, male or female, have been living in the community for more than a year and agreed to participate in the study.

#### **Measurement and Instrumentation**

The study utilized the Access to Health Care (AHC) Instrument developed by Zandam, Juni, Hayati and Anisah (2017) and was translated to Filipino following the World Health Organization guidelines (WHO, n.d. as cited by Soriano & Calong Calong, 2019). The forward translation was done by a bilingual healthcare professional while back-translation was done by another translator who is an English language teacher but has no knowledge of the instrument. Afterwards, a pretesting and cognitive debriefing was done among selected participants who met the inclusion criteria. No problems were encountered during the conduct of the interview and the intent of the questions.

The AHC instrument is a 25-item instrument consisting of six subscales pertaining to

approachability (6 items), availability (3 items), accessibility (3 items), affordability (3 items), acceptability (5 items) and accommodation (5 items) with Cronbach's alpha of 0.799, 0.782, 0.679, 0.751, 0.753 and 0.752 respectively which met the criteria set by Polit and Beck (2014 as cited by Soriano & Calong Calong, 2019). Further, the translated tool was shown to be content valid having an Item Content Validity Index (I-CVI) ranging from 0.90 to 1.0 and Scale Content Validity Index (S-CVI) of 0.94 which met the criteria set by Polit & Beck (2006 as cited by Soriano, 2019). The survey instrument also collected demographic data on the participants, including age, sex, marital status, educational attainment, employment status, family income, and family size.

#### **Operational Definitions**

Healthcare defined in terms of six components including access was approachability, availability, accessibility, affordability, acceptability, and accommodation. Approachability is when people facing health needs are aware of certain healthcare services at hand and have an impact on the health of the individual (Levesque et al., 2013) while availability is the extent to which the supply and services are made readily available in terms of the adequacy of facilities and healthcare professionals (Levesque et al., 2013; Penchasky & Thomas, 1981). Another aspect is accessibility which refers to the geographic location of patient to the location of facilities like perception on spatial distance and travel time to reach the facility (Obrist et al., 2007; Penchasky & Thomas, 1981). Affordability, in turn, refers to the perception costs associated with healthcare visits such as consultation fee, travel and medical costs which can have an impact on the overall access to healthcare (Levesque et al., 2013; Peters et al., 2008). Acceptability, on the other hand, is the provision of quality services and personal treatment by healthcare providers (Peters et al., 2008; Levesque et al., 2013). Lastly, accommodation refers to the relationship between the manner in which the supply resources are organized to accept clients (including building facilities, appointment systems, hours of operation, walk-in facilities, telephone services), clients' ability to accommodate to these factors, and clients' perceptions of their appropriateness (Levesque et al., 2013; Obrist et al., 2007).

#### **Data Analysis**

The data were analyzed using frequency, percentage, mean, standard deviation. Univariate linear regression was used to determine the influence of the demographic profile on the perceived access to healthcare.

#### Result

The demographic profile of the participants (Table 1), revealed that the mean age was 33.4 (±13.27), the majority were female (n=39 or 65%), married (n=34 or 56.7%) and with a high school education (n=35 or 58.3%). Further, most were employed (n=35 or 56.5%) with family income of <Php19, 999 (n=56 or 90.3%) and family size of 4 to 6 members (n=32 or 51.6%).

**Table 1.** Demographic Profile of the Participants (n = 62)

| Characteristics  | Frequency (f) | Percentage (%) | Mean (SD)     |
|--|---------------|----------------|---------------|
| Age (Years)  |               |                | 33.4 (±13.27) |
| Sex  |               |                |               |
| Male   | 22            | 35.48%         |               |
| Female   | 40            | 64.52%         |               |
| Marital Status   |               |                |               |
| Single   | 27            | 43.55%         |               |
| Married  | 35            | 56.45%         |               |
| Education  |               |                |               |
| Elementary Graduate  | 26            | 41.9%          |               |
| High School Graduate   | 36            | 58.1%          |               |
| Employment   |               |                |               |
| Employed   | 35            | 56.50%         |               |
| Unemployed   | 27            | 43.50%         |               |
| Income   |               |                |               |
| <php19, 999<="" td=""><td>56</td><td>90.30%</td><td></td></php19,> | 56            | 90.30%         |               |
| >Php20, 000  | 6             | 9.70%          |               |
| Family Size  |               |                |               |
| 1 to 3 individuals   | 23            | 37.10%         |               |
| 4 to 6 indiivuduals  | 39            | 62.90%         |               |

Table 2 shows the descriptive statistics of perceived access to healthcare among the participants. The results revealed that overall, the participants had fair access to healthcare (M= 3.57; SD=  $\pm 0.35$ ). In terms of approachability, the mean score was 3.81 which can be interpreted as good, whereas the mean score for availability was 3.47 which can be interpreted as good. The accessibility was rated as fair (M=3.48) and the affordability was rated as good (M=3.75), Furthermore, the mean score of acceptability was 3.45 which can be interpreted as good while accommodation was rated as fair (M=3.35).

**Table 2.** Descriptive Statistics of Perceived Access to Health Care (n = 62)

|                                 | Mean | Standard Deviation | Interpretationa |
|---------------------------------|------|--------------------|-----------------|
| Perceived Access to Health Care | 3.57 | ±0.35              | Good            |
| Approachability                 | 3.81 | ±0.54              | Good            |
| Availability                    | 3.47 | ±0.57              | Good            |
| Accessibility                   | 3.48 | ±0.68              | Fair            |
| Affordability                   | 3.75 | ±0.58              | Good            |

|                          |                          | Mean | Standard Deviation      | Interpretationa |
|--------------------------|--------------------------|------|-------------------------|-----------------|
| Acceptabili              | <sup>*</sup> ty          | 3.45 | ±0.47                   | Good            |
| Accommod                 | lation                   | 3.35 | ±0.56                   | Fair            |
| <sup>a</sup> Legend:     | Very Poor = 1.00 to 1.79 |      | Poor = 1.80 to 2.59     |                 |
|                          | Fair = 2.60 to 3.39      |      | Good = $3.40$ to $4.19$ |                 |
| Excellent = 4.20 to 5.00 |                          |      |                         |                 |

The results of the univariate linear regression analysis of the influence of the demographic characteristics on perceived access to healthcare of the participants is depicted in Table 3. None of the demographic characteristics significantly predicted perceived access to healthcare.

**Table 3.** Univariate linear regression of perceive access to healthcare (n=62)

|                                    | Source       | Regression<br>Coefficient | SE B          | p value  | R squared |
|------------------------------------|--------------|---------------------------|---------------|----------|-----------|
| Perceived Access to<br>Health Care | Age          | 0.004                     | 0.169         | 0.581    | 0.016     |
|                                    | Sex          | -0.004                    | 0.136         | 0.975    | 0.000     |
|                                    | Civil Status | 0.040                     | 0.120         | 0.740    | 0.002     |
|                                    | Education    | -0.169                    | 0.132         | 0.207    | 0.026     |
|                                    | Employment   | 0.030                     | 0.135         | 0.219    | 0.001     |
|                                    | Income       | 0.060                     | 0.227         | 0.794    | 0.001     |
|                                    | Family Size  | -0.201                    | 0.136         | 0.146    | 0.035     |
| Regression equation:               | Y'=4.30+0.00 | 4-0.004+0.040-0.          | 169_0.030+0.0 | 60-0.201 |           |

#### **Discussion**

The study was conducted in order to assess perceived access in healthcare among residents of a rural area in Rizal, Philippines. The findings revealed that there was a good approachability of healthcare access; meaning that the participants are well aware of the healthcare services in the community. This is likely attributed to the community being one of the adopted communities of a university in Manila. As an adopted community, they received healthcare services and outreach programs as well as information drives which is conducted in partnership with the local government. This may also be the reason why the participants rated availability of healthcare as good. Asasira and Ahimbisibwe (2018) stated that partnership arrangement between public and private organizations will enable adequate delivery of healthcare services to the clients.

The influence of geography has been shown to affect access to healthcare (Arcury et al., 2005); healthcare facilities that are 30 minutes within the community are considered as accessible (Famorca, Nies, & McEwen, 2013). It can be noted that the accessibility of healthcare was rated by the participants as fair. This means that distance from the health facility did not pose a problem and

that the health facility was within a reasonable distance from the catchment population it was intended to serve.

In terms of affordability, the literature has revealed that poor people with lower level of education would perceive access to healthcare to be more challenging than those with higher education and higher income (Borders, Aday & Xu, 2004; Moss, 2000). However, this was not the case in this study; since monthly income and education were not shown to be predictors of perceived access. It was interesting to note that the affordability of healthcare services was rated by the community as good, since ensuring the affordability of healthcare remains an important factor in achieving access to high-quality healthcare (Agency for Healthcare Research and Quality, 2017).

The participants of the study rated acceptability of healthcare services as good. Acceptability is essential since it encompasses patient satisfaction with the care received. Studies have shown that patients who are satisfied with quality of care are more likely to continue with care, adhere to medical instructions, and are also unlikely to patronize non-professional medical practitioners (Pascoe, 1983; Vuori, 1987).

Accommodation, on the other hand was rated by the participants as fair, suggesting that the structures and facilities present in the healthcare facilities were successfully accommodating the number of people in the community.

Overall, the participants have revealed a good access in healthcare services. This finding can be attributed to the implementation of Universal Health Care Program by the Aquino government in 2016. This program was developed with the goal of providing equitable access to affordable and quality health services thereby addressing inequity in healthcare system.

The study had the following limitations: (1) although there are supply-side features of the health system and organization and demand side features of populations (Levesque et al., 2013), the study only explored the supply side without attempting to assess the demand side of the population, (2) a convenience sample was used, hence, generalizability of the results is limited, (3) lastly, the study only focuses on the perception of healthcare access without attempting to measure the healthcare seeking behaviors and healthcare utilization of the participants.

#### Conclusion

Assessment of health care access is an important measure of health care equity and despite several factors previously shown to affect health care access. Results of this study showed that the participants have a good access to health care in their community.

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RESEARCH NOTE

# Reflections of Positive Experiences in Midwifery and Nursing of Maternal-Newborn Education in Thailand: Lessons Learned from Naresuan University

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#### Abstract

The success of maternal and child health practices emphasizes on health policies, building effective partnerships, advocating for investments in maternal and newborn health, and coordinating research that focuses on improving maternal health in pregnancy and during and after childbirth. In these situations, nurses and midwives are the key resources who comprise the greater part of the health-care workforce. Nurses and midwives make substantial contributions to healthcare delivery systems especially in primary care, acute care, and community care setting. Thailand has an excellent production of nurses since they can perform duties as a nurse and as a midwife. This is what we think nurses from other countries should apply in their countries to improve health services. We can also show that our country has a low gender gap in employment not just in nursing. This paper would like to present the lessons learned from Thailand Nursing Education purposed in midwifery, maternal and newborn nursing at Naresuan University. Specifically, the purpose of this article was to discuss the midwife and maternal and newborn education standards in Thailand and describe the experiences using reflective knowledge in order to inform current and future midwifery and maternal and newborn nursing practices in Thailand.

Keywords: Maternal and newborn education, midwifery education, positive consequences, Thailand

#### Introduction

Presently, more than 300,000 women around the world die during pregnancy and childbirth, some 3 million babies do not survive the first month of life, and another two and a half million babies are stillborn. Most of them could have been saved by the care of well-trained midwives within the framework of strong health systems (United Nations Population Fund [UNFPD], 2017). In Thailand, according to the RNs competencies, the modern midwife and nurse can now assist women who may have died in the past during pregnancy and childbirth. High percentages of laboring women (97%) are attended by skilled health personnel, much higher than the regional average (49%). In addition, Thailand is a successful country as presented by the MMR rate as compared with other countries in ASEAN and the rest of the world. Thailand has the lowest MMR rate in ASEAN which makes it a good destination for nurses from other countries to learn how Thai nurses manage this situation. We would like Thailand to be the leader in ASEAN in tackling MMR since the cases are consistently low as compared to other countries. They can learn from our educational system as well as from the health care delivery system by making nurses equipped with midwifery skills in order to provide the best services to pregnant women and their families.

Nursing was the first education-based occupational field for women in Thailand which started more than 100 years beginning with hospital bedside care (Muecke & Srisuphan, 1989). In 1896 the first nursing school in Thailand, School of Medicine-Midwifery and Female Nurses, was opened and developed by Queen Sripatcharintra. In 1925-1936, when Prince Mahidol returned to Thailand after studying as a physician in the USA, the Rockefeller Foundation collaborated with the Ministry of Public Health – by sending nurses to study abroad and for USA nurses to consult in Thailand. In 1970, the Ministry of University Affairs in Thailand confirmed that university-educated nurses are prepared to function as teachers, planners, implementers, and evaluators in public health. Then, Thai universities began to see the establishment of nursing in academia as an independent professional discipline in 1971 (Brandt et al., (n.d).

The midwifery education in Thailand is absolutely different from developed countries such as Canada, the United State of America, United Kingdom, and Australia. They are separate from nursing at undergraduate programs (Bourgeault, Neiterman & LeBrun, 2011). Our midwifery program is also different from other developing countries such as in Indonesia, Laos, and the Philippines in which they separated the midwifery program from nursing. This paper would like to describe maternal and newborn education standards by reflecting on experiences in order to inform current and future midwifery and maternal and newborn nursing in Thailand. Our neighboring ASEAN countries could apply the experiences they got from Thailand to their services in their countries. This paper will also encourage them to open their minds to apply this information in order to get opportunities in the future. They also learn from their experiences in other countries and by meeting other people.

#### Successful Women's Health Issue in Thailand

Since 2002, Thailand has been successful in implementing universal health coverage for its people. This program presented social protection and equity from birth to end of life care. The scheme is financed through taxation in such a way that those on higher incomes pay more than those on lower incomes. Ambulatory and hospital care are available to the poor through a geographically widespread network of district-level government health facilities (Prakongsai, Tangcharoensathien & Limwattananon, 2008).

According to the World Health Organization (WHO), Maternal and Child Health (MCH) indicators were used as measures of health outcomes and coverage of health care interventions. The coverage of maternal health indicators was family planning, prenatal care and delivery by a skilled health worker and delivery in a health facility, and postpartum care. Child health indicators were improving the quality of services such as low birth weight, child malnourishment, child illnesses, and basic vaccinations such as bacille Calmette–Guérin (BCG) vaccine, vaccine against measles, mumps and rubella (MMR); three doses of oral polio vaccine (OPV) and vaccine against diphtheria, pertussis (whooping cough) and tetanus (DPT); and one dose of hepatitis B vaccine.

Among 30 low and middle-income countries, Thailand has been one of the most effective countries in reducing mortality in children under five years old (Rohde et al., 2008). For example, the mortality rate fell from 58 in 1980 to 30 in 1990, and to 23 in 2000 per 1000 live births (Hill, Vapattanawong, Prasartkul, Porapakkham, Lim, & Lopez, 2007). The improvement in child survival has been accompanied by a remarkably small disparity between the rich and the poor (Vapattanawong et al., 2007).

When comparing updated MMR data among ASEAN countries as shown in Table 1, Thailand has done the wonderful intervention to reduce MMR in this country impressively.

| Table 1. Maternal mortalit | y rate | (deaths/100,000 live births) |
|----------------------------|--------|------------------------------|
|----------------------------|--------|------------------------------|

| Country     | 2010 | 2015 |
|-------------|------|------|
| Laos        | 470  | 197  |
| Cambodia    | 250  | 161  |
| Indonesia   | 220  | 126  |
| Philippines | 99   | 114  |
| Vietnam     | 59   | 54   |
| Malaysia    | 29   | 40   |
| Thailand    | 48   | 20   |

According to the global standards for the initial education of professional nurses and midwives by World Health Organization (2012), an initial nursing or midwifery education aims to

prepare individuals to fill a role in the professional workforce where they will be called upon to strengthen health systems to meet population needs and protect the public. High-quality education programs that meet a global standard are therefore imperative. The global standards may furthermore: 1) act as a catalyst in advocating for education change, reform and quality improvement; 2) serve as leverage in building capacity for adequate numbers of nurses and midwives and a competent workforce for strengthening health systems; and 3) serve as a basis for the development of global standards for advanced nursing and/or midwifery education. Furthermore, nursing or midwifery schools should have accessible, current and relevant physical facilities including, but not limited to, classrooms, clinical practice sites, information and communications technology, clinical simulation laboratories, and libraries. This is one of the infrastructures to develop nurses and midwives' standard that the education system should provide for nursing students.

Therefore, the education institution development was also described as having contributed to the development of midwifery education. This included the strengthening of courses and the enhancement of teaching and staffs' motivation that had led to increasing international relationships (Uys & Middleton, 2011). The notion of university education in nursing itself still remains problematic such as there are many disparities in the programs currently being offered in different parts of the world. For instance, the length of the courses offered varies from two to five years; some countries offer nursing programs but not midwifery programs in the higher education sector; some countries offer comprehensive programs that combine nursing and midwifery while others see the two as separate professions and maintain separate education programs; some countries offer midwifery only as an option for qualified nurses, while others recognize midwifery as a profession distinct from nursing (WHO, 2012).

In Thailand, all institutions offering nursing education for four years for the bachelor of nursing science programs combines professional nursing and midwifery. All the nursing students will complete their professional nursing and midwifery license from the Thailand Nursing Council according to the professional practice of midwifery. This means that the practice of midwifery to pregnant women, post-delivery women, their newborns, and families are in the following actions: 1) to provide education, advice, counseling, as well as solving health problems; 2) to act and assist pregnant women, post-delivery women, and their newborns' physical and mental health in order to prevent complications during pregnancy, delivery, and post-delivery; 3) to provide treatment, as mentioned in primary medical care and immunization; 4) to provide physical examinations, delivery of the baby and family planning services; and 5) to assist physicians to perform treatment. These actions shall be based on scientific principles and the art of midwifery in performing health assessment, nursing diagnosis, planning, intervention and evaluation (Government, 1997).

The Thai midwives performances reach to the international midwives capacities perfectly. The international definition of a midwife states that: "The midwife is recognized as a responsible and accountable professional who works in partnership with women to give the necessary support, care and advice during pregnancy, labor and the postpartum period, to conduct births on the

midwife's own responsibility, and to provide care for the newborn and the infant. This care includes preventive measures, the promotion of normal birth, the detection of complications in mother and child, the accessing of medical care or other appropriate assistance, and the carrying out of emergency measures." (International Confederation of Midwives, 2005)

Also in Thailand, compared with other countries in Asia, we include 12 credits of Maternal and Child and Midwifery courses so graduates of BNS programs can practice both nursing and midwifery. The midwifery courses are integrated into Thai nursing programs, therefore, they can be both Nurses and Midwives at the same time. These credits comprise theories and practicum to prepare the nurses for real-life scenarios. Consequently, after graduation, they can apply their knowledge to other women in remote areas or every community in this country to support poor people.

Several key themes made Thailand successful for women's health services. Nursing education programs which combine midwifery and maternal and newborn nursing is the most important key. Emerging from the authors' reflections as Gynecology, midwifery, and maternal-newborn instructors came from experiences including educational accreditation, curriculum, student recruitment, programs, practicum, faculty role, and preceptor as presented in Table 2.

Table 2. Maternal and Newborn and Midwifery Details at Naresuan University

| Topics                                     | Naresuan University  |
|--|--|
| Nursing and Midwifery Educational standard | One Nursing and midwifery standard from Thailand Nursing Council, required 12 credits of MCH and midwifery   |
| Educational accreditation                  | Accreditation from several organization such as Thailand Nursing Council, The Office for Education Standards and Quality Assessment (Public organization), Office of the Higher Education Commission |
| Curriculum                                 | Combined Nursing and Midwifery   |
| Midwifery educational program              | Theoretical curriculum, clinical training, and research  |
| Student recruitment                        | Students who studied from a science program in high school   |
| Programs                                   | Maternal and Newborn, Women's Health Nursing, and Midwifery  |
| Midwifery course                           | Set in relation to special areas of midwifery such as professional aspects of Midwifery; Anatomy, Physiology, Pathology; basic and advanced principles of maternity, and Pharmacology                |
| MCH and Midwifery Clinical Training        | Labor department (at least 5 cases of normal delivery practice), post-partum department, ante-natal care, family planning  |
| Faculty's Role during training             | Trainer, nurse, coach and advocator  |
| Faculty's Responsibility                   | 8 students per trainer/faculty   |
| Preceptor                                  | 25% of courses when training the students -They were trained in a preceptor program from Faculty of Nursing, Naresuan University.  |
| Assisted technology                        | Simulated pregnancies, Computer Assisted Instruction (CAI), and other technologies such as website and video clips were the main instruction of nursing practices                                    |

#### **Reflection from Experiences**

Thailand has had "a long and successful history of health development". World Health Organization (2014) addressed nurses and midwives who make up the greater part of the global health-care workforce of the successful Millennium Development Goals 5 (MDG5). They make a substantial contribution to health-delivery systems in primary care, acute care, and community care settings. In Thailand, according to the RNs competencies, the modern midwife and nurse can now assist women who may have died in the past during pregnancy and childbirth. High percentages of laboring women (97%) are attended by skilled health personnel, much higher than the regional average (49%). Women in Thailand are also much more likely to attend four or more antenatal visits (74%) compared to women in other countries in Southeast Asia (43%) and more women use contraception (81%) compared to (58%) (Central Intelligence Agency, 2015). The under-5 mortality rate (per 1000 live births) has decreased to 14 (2008) from 28 (2002). Infant mortality has also decreased from 20 (2002) to 16.39 deaths per 1000 live births (2011) (World Health Organization Regional Office for South-East Asia, 2014).

Training midwife and nursing students are in high demand. The supply of nursing professionals in Thailand is decreasing, the numbers remain woefully insufficient to meet the health needs and well-being of populations. There is a shortage of young people wanting to study nursing in the university level since the salary as a nurse is not at par with the workload and they want to work on their own and be less supervised. As a result, there are fewer enrollments in the nursing program at the university. Furthermore, in this time of nursing shortages and higher acuities, with evidence-based practice at the forefront of nursing, it has been shown that one-to-one labor support needs to necessitate the work of a high quality registered nurse. Thai nurses and midwives make a substantial contribution to health-delivery systems in primary care, acute care, and community care settings.

Therefore, Thailand Nursing and Midwifery Council should invest in effective clinical and research skill building, the development of tailored educational programs, and the establishment of structures and systems to enhance the midwifery workforce and ultimately, improve maternally and child health. Capacity building is critical and is up to the midwifery workforce to improve maternal and child care to support the global policy. The strategies to enhance nursing students include enhancing practice and experiences of midwifery by giving workshops, sharing expertise, knowledge and resources, outline evidence-based practice and lessons learned, sharing through simultaneous electronic discussions to name a few. As Thailand Nursing and Midwifery Council (2015) mentioned, "The midwife is recognized as a responsible and accountable professional who works in partnership with women to give the necessary support, care and advice during pregnancy, labor and the postpartum period, to conduct births on the midwife's own responsibility and to provide care for the newborn and the infant". This care includes preventive measures, the promotion of normal birth, the detection of complications in the mother and child, the accessing of medical care or other appropriate assistance, and the carrying out of emergency measures. In conclusion, training midwifery which is

combined in a BNS curriculum is appropriate in Thailand. In addition, we should apply high technology and advanced educational interventions from developed countries to enhance nursing students' competencies who are going to be future nurses. Furthermore, midwifery and nursing in Thailand should be the center for the transfer of outstanding experiences to ASEAN nurses which could be done by inviting more students, lecturers, and administrators as part of educational exchange programs.

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RESEARCH NOTE

## "Hulas at Hiya": Reflections on Filipino Context of Human-Connectedness and the Nature of Nursing

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#### **Abstract**

This paper, through the lens of ethnography, explores and analyze the Filipino concept of *hulas* and *hiya* as the context of human-connectedness and its implication to the contemporary understanding of the nature of nursing and the process of knowing persons as persons. It is argued that the concepts of *hiya* and *hulas* are social constructs deeply ingrained in the Filipino psyche and society. Both markedly influence how Filipino persons present themselves and act in accordance with their unique and complex social dynamics. As such, this paper supports the idea that between the dichotomy of social and medical sciences, the discipline of Nursing shares the paradigmatic orientation and values of the former more than the latter. It is implied that education in nursing at the undergraduate and postgraduate levels must include scholarship, research, and studies on the prevailing local cultural knowledge to shed a deeper appreciation of unique practices and concepts affecting the understanding of nursing science and its expression as a discipline.

Keywords: Hiya, Hulas, Knowing, Knowledge, Nursing

#### Introduction

n this paper, the cultural concept of *hiya* and *hulas* are viewed through the ethnographic lens and prevailing philosophy (Laughame, 1995). The perspective and facets of culture, naturalism, and holism is utilized to gain a deeper understanding of these two concepts and situate the implications of this analysis to the contemporary understanding of the nature of nursing and the process of knowing persons as persons.

The following propositions provide the grounds for this paper analysis, that: (1) Human-connectedness in nursing is caring, (2) the Intent of the process of knowing persons is human-connectedness (3) the context of human-connectedness is socially constructed. Human-connectedness occurs when persons are actively engaged resulting in a sense of well-being, comfort and meaning (Hagerty, Lynch-Sauer, Patusky, & Bouwsema,1993; Latimer, 2013; Martinez, 2019). Once it occurs within a nursing situation, human-connectedness becomes an expression of caring in Nursing.

One of the fundamental roles of a nurse within these nursing situations is the promotion and maintenance of human-connectedness as person transition along the human-health continuum. Creating moments of human-connectedness and facilitating its expressions as person is transitioning, is one of the unique disciplinary hallmarks of Nursing.

The process how people expressed human-connectedness is heavily influenced by their personal experience, professional training, and cultural milieu. Since human-connectedness is essentially dependent on the continuous, deliberate and mutual engagement of persons in the process of knowing, the manner how persons relate, communicate and connect with one another grounds the content how human-connectedness is created. These patterns of human-connectedness and the context where they occur therefore are socially-constructed, largely determined by the people's communal cultural context.

#### **Discussion**

The Filipino culture, often described as being person-centered (Pe-Pua & Protacio-Marcelino, 2000) provides a unique perspective of the context and nature how human-connectedness is created within the nursing situation. Distinct Filipino concepts such as *hulas*, *hiya* and *hiyang* provide a glimpse on the meaning-making of Filipinos on human-connectedness. These three concepts and their relationship on the contemporary understanding of the nature of nursing are explored in this paper.

#### Hulas

Hulas is a unique concept among Filipinos, which may connote two things: defervescence of a fever (paghupa ng sakit) or melting of a candle (pagkalusaw). Both meanings point out to the notion of withering of things, the former meaning attributed mostly to persons being nursed and the latter towards the nurse. The notion that a "hulas" nurse is akin to a melting candle is closely related to the Filipino concept of compassion fatigue. Compassion fatigue, described as a work-related stress among health care providers (Sinclair, 2017) is seen as progressively chronic and enduring in character. The nature and setting of the nurse's workprovides a ground for "toxic environment" to happen. This constant and repeated exposure to these "toxic environment" can bring about hulas and compassion fatigue to nurses. What set the

notion of hulas different from compassion fatigue is the element of impermanence. Although Hulas and compassion fatigue will both have physical manifestations, compassion fatigue tend to be more lingering than the transitory hulas. A nurse that looks tired on a given duty day may be labelled as hulas by others but if this becomes perennial, that nurse maybe seen as having compassion fatigue.

Another interesting characteristic of the concept of *hulas* is that it is always viewed from the others' perspective. A Filipino nurse will often describe themselves as *pagod* (tired) rather than say that they are *hulas*. It is the other person, a fellow health care provider, the patient or their family, that will see that same nurse as *hulas*. Since the process of knowing persons is built upon trust and intimacy developed through rapport, the manner how persons present themselves and how their comportment is appreciated by the other becomes critical.

The concept of *hulas* takes into account the almost extreme sensitivity of Filipinos to appreciate minuscule sensory-based aspects of persons and attribute it to that person's wellness or lack of it. Filipinos high affinity to see fine details and feel context clues such as the other person's tone of voice, choice of words, posture, distance, body movement, and non-verbal actions, are taken into account to appreciate the other persons at-the-moment being. The notion of the personal "gut-feel" is sometimes given more emphasis than what the other person claims themselves to be.

These bring us to one of central principles of *hulas*, the deep understanding of the impermanence of things. May it be the transitory nature of stress and fatigue or the moment to moment reality of knowing persons, *hulas* emphasize that knowing persons is an unending journey and never an absolute process. The nurse perceived to be *hulas* today may not be seen as *hulas* tomorrow. The momentarily appreciation of persons only hold its truth within that situation. Reality is context sensitive. What we think we know as real and truth at the moment, is only true at that instance. *Hulas* emphasize that it is the sense of unknowingness that opens possibilities of knowing persons fully as persons. The deliberate establishment of the nursing situations between the nurse and the nursed always begin with knowing persons fully as persons. The intent of knowing persons, human-connectedness, can only be appreciated moment to moment as it is always perpetually never complete.

Hiya

*Hiya* is a concept often translated as a sense of propriety (Pe-Pua, & Protacio-Marcelino, 2000). It is defined as a "painful emotion arising from a relationship with an authority figure or with society, inhibiting self-assertion in a situation which is perceived as dangerous to one's ego" (Bulatao, 1964 p. 428). More than a value, it is a Filipino virtue which emphasizes an active, conscious and sacrificial effort of self-control for the sake and welfare of the other person. *Hiya* prevents the other persons from suffering from being hurt, slighted, or embarrassed (Lasquety-

Reyes, 2016) and thrives in a culture where social approval and control is highly operative (Ligo-Ralph, 1990). It is a potent social control of Filipino's actions (Watkins & Gutierrez 1989).

The essence of Filipino relationality is centered on this concept of hiya. The concern for the welfare of the other person is an essential element of the Filipino interpersonal relationship. Hiya exists to protect the fragile ego that is the individual self. Since this sense of self among Filipino is always projected toward the other person (the kapwa), these persons are indirectly seen as having a fragile ego as well. Hiya is a mechanism by which Filipinos actively control and refine their actions and words to protect the perceived fragile self of the other person and in the process prevent their embarrassment. With hiya, information from the person is purposefully filtered depending on how the other person's authority and position is compared to themselves. A Filipino patient may complain of pain more to a nurse than to a consultant physician for the latter is seen as more of an authoritative figure than the former. With hiya, respect for persons in authority is instinctively magnified to the point that the person's choice of words, voice tone, and expressive gestures are filtered to avoid offending the authoritative figure's feeling and appear to assume a non-threatening stance to avoid challenging their other person's expertise and authority. Even with the nurse, some Filipino patients suffering from pain may not readily divulge their concern unless directly asked of it because of hiya. The sense of being an added burden to the nurse because of the patient's personal concern seems to be more potent than their actual pain that for some, they would rather endure than disclose it and add to the difficulty of the nurses responsibilities.

A Filipino nurse on the other hand, may find it difficult to ask questions deemed as inappropriate (such as sexual history) especially if the patient is person of authority or someone that they have had intimate relationship with. The sense of awkwardness brought about by *hiya* for the person being asked of the question maybe so compelling that the nurse may wilfully skip those even if it maybe essential to the patient's current health concern. Indirect inquiry via the use of euphemisms instead of direct questioning may be utilized by the Filipino nurse to circumvent this feeling of *hiya* but in the process vital information maybe loss in translation. This situation may become more problematic if the person being nursed is not accustomed to the Filipino's indirect pattern communication. These indirect patterns of communication because of *hiya* may hinder open and truthful communication which is a core element of rapport building within the nursing situation.

An essential element of the concept of *hiya* is the existence of a perceived imbalance relationship of power and authority between the nurse and the nursed on the onset of the process of knowing persons. Since the process of knowing persons is dialogical, evolving, changing and perpetually incomplete, this sense of power imbalance may be altered as the nurse assumes varied role within nursing situations as it continuously unfolds. For the intent of the process of knowing persons, human-connectedness, to be momentarily realized, this perceived disproportional power and authority among the nurse and the nursed must be transformed. As with the concept of *hulas*, the stance of unknowingness and openness facilitate the realignment of these imbalances. Certain information such as the personal account and human-health

experiences of the one being nursed are unknown to others. The nursing knowledge only accessible and privy to nurses is unknown to the one being nursed as well. Within nursing situations, therefore, the nurse and the nursed are both knowledgeable and unknowledgeable at the same time. There must exist a deliberate effort from the nurse to assume varied roles within the nursing situation as moments dictate, coupled with the attitude of unknowingness and the posture of openness to bring balance of authority and power at its optimum. These affirm that the nursing situation is a transactional space where identities of persons are fluid and the balance of power and authority is dynamic.

The concept of *hiya* emphasizes that communication between persons always occur thru a cultural sieve. *Hiya* is one example of a social filter. The dialogical nature of knowing persons within a nursing situation invariably happens within a cultural context. Being consciously aware of the cultural context where knowing persons occurs within the nursing situation is imperative if the goal is to know the other person fully as person moment to moment. The intent of knowing persons is the creation and maintenance of human-connectedness.

#### **Synthesis and Implications**

The concepts of *Hiya* and *Hulas* are social construct deeply ingrained in the Filipino psyche and society. Both markedly influence how Filipino persons present themselves and act in accordance with their unique and complex social dynamics. These allow Filipinos to navigate the intricacies of their social network and maintain a sense of personal peace and community equilibrium. *Hulas* and *hiya* provide the context of human-connectedness among Filipinos which is essential in the formation of rapport and the process of knowing persons fully as persons. These two processes among others allow nursing situation to occur where caring moments can be expressed.

Insights from this paper support the assertion that between the dichotomy of social and medical sciences, the discipline of nursing shares the paradigmatic orientation and values of the former more than the latter. The assumption that persons are unpredictable, holistic and intrinsically sentient on their sense of well-being and that persons are more knowledgeable of their personal experiences and meaning making processes, is essentially similarly shared with the prevailing paradigm of the social sciences. Cody (1995) termed this paradigm as simultaneity, whose core application to nursing is the assumption that the unpredictability of persons makes each nursing situation even with the same person, unique and continually evolving. Knowing the history of the person is not the same as knowing the person fully as person. Each nursing-nursed encounter is different making the process of knowing persons perpetually unfolding and never complete. There always exist a sense of awe and wonder in every nursing situations and encounters.

Studies exploring the unique social and cultural context of human-connectedness and its effect on the contemporary understanding of nursing as practiced within each locality and its changing nature is needed to provide a more holistic appreciation of Nursing as a universal

discipline. Education in nursing at the undergraduate and post-graduate level must includescholarship, research and studies on the prevailing local cultural knowledge to shed a deeper appreciation of unique practices and concepts affecting the understanding of nursing science and its expression as a discipline. Knowledge of the social science and humanities should not be over shadowed in the education of future nursing professionals.

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LETTER TO THE EDITOR

### Teacher Support and other Associated Factors as Perceived by Nursing Students

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#### Dear Editor:

The research article by Tejada (2019) entitled *Health Promoting Lifestyle and Perceived Social Support Measure of Nursing Students in a College of Nursing* focused and highlighted the "least suitable" lifestyles of students. Among these lifestyles, nutrition habits had the worst mean scores which means that students are not employing healthy eating practices. These unhealthy practices are multifactorial in nature which includes individual, social, and university environmental factors (Sogari, Velez-Argumedo, Gomez, & Mora, 2018). Thus, I share the concern of the author on this matter.

Certain socio-demographic variables like family income, history of abuse, mental health, religion, etc., have been found to be associated with malnutrition, particularly obesity in countries like the Philippines (Peltzer, et al, 2014). Therefore, the inclusion of these factors in future studies could potentially give a clearer understanding of the nutrition lifestyle and habits of students. The published article only included age, gender, and the year level as socio-demographic variables.

Noteworthy in the article is how the Perceived Social Support was measured. Perceived support from friends and relatives, and other support groups were measured; but strikingly, the support acquired from teachers was discounted. Measuring this support drawn from teachers is essential in understanding how much of this is actually perceived by the students. There is evidence that teacher support is related to a student's positive or negative academic emotions (Lei, Cui, & Chiu, 2017).

If educators do indeed affect the students' perceived support, then administrators can capitalize on that knowledge by generating precise school policies and interventions. Subsequently, administrators can avoid a trial and error approach when implementing the said policies and interventions. Demir, Burton, and Dunbar (2018) found out in their study that rapport and support from professors are related to student outcomes, but is dependent on the effectiveness of the teachers. This further fuels the need to include the teacher role in future studies. In simple terms, the teacher's role in influencing a student's perceived support cannot be disregarded.

Future researchers may want to explore the relationship between health promoting lifestyle

and perceived social support. The main reason for this is the dearth of literature studying the direct relationship between those two variables. In fact, the article itself fell short of analyzing their relationship.

In summary, the article can be utilized by school administrators as a basis for developing programs aimed at improving health promoting lifestyle of students especially with regard to nutritional habits. Future researchers can capitalize on the need to explore other factors that may influence the students' perceived social support, with extra emphasis on studying the impact of teachers.

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