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Patubas



Patubas is an Ilonggo word for “product” or “fruit”. It is a fitting description for this multidisciplinary research journal which is indeed, a product or fruit of labors of researchers or the “seekers” of truth in its varied dimensions.

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 - c.3. Theoretical/Conceptual Framework and Hypotheses (if applicable)
 - c.4. Significance of the Study
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PREFACE

Research is an integral part of any academic institution. For one, it addresses a need of a university. Another, it gives extra credit to the faculty or staff and eventually the university once it reaches publication.

However, research does not stop once the institution or the proponents have reaped its fruits. What should be remembered here is the need to go beyond the results of the study. Let us look at an even larger scale --- the society --- and ensure that it, too, can be greatly benefited.

As CPU's contribution to the community, the university highly encourages her faculty and staff to go into research and to aim for publication whether in a local or international journal.

Patubas, CPU's multi-disciplinary journal, is helping researchers get the boost that they need to continue pursuing timely and relevant studies. In its recent release, Patubas is publishing five articles on various fields: Literature, Education, Communication, Theology and Science and Technology.

May this latest edition of Patubas open more opportunities to bridge knowledge gaps and to seek needs that should be met. May this also encourage and inspire many of us to pursue research. More importantly, may the researches that we want to pursue better CPU and the society.



TEODORO C. ROBLES, Ph.D.

President

ANTIOXIDANT ACTIVITY AND CITRAL CONTENT OF DIFFERENT TEA PREPARATIONS OF THE ABOVE-GROUND PARTS OF LEMONGRASS (*Cymbopogon citratus* Stapf.)

Mizpah C. Villalobos

ABSTRACT

Lemongrass (*Cymbopogon citratus* Stapf.) is a common herb used in cooking and recognized for its many health benefits. This study measured the antioxidant activity and citral content in extracts made from air-dried and fresh lemongrass tissues prepared by decoction and infusion. The plants were collected from three different areas in Iloilo (Pavia, Jaro and Lapaz) and two baranggays in Buenavista, Guimaras (Brgy. Daragan and Brgy. San Isidro). All plant extracts were found to exhibit antioxidant activity against the diphenylpicrylhydrazyl (DPPH) radical. Antioxidant activity was significantly ($p < 0.05$) higher in fresh plants than in dried plants. Fresh plants when prepared by decoction gave higher antioxidant activity than when prepared by infusion. On the other hand, antioxidant activity remained the same in dried plants, whether prepared by decoction or infusion. Citral was also found to be present in the plant extracts, but is not significantly ($p > 0.05$) affected by the kind of plant tissues used, whether fresh or dried. However, extraction by decoction gave a higher citral content than infusion. Thus, if one wanted to get the most of antioxidants and citral from lemongrass tea, fresh plants prepared by decoction must be used.

INTRODUCTION

Lemongrass (*Cymbopogon citratus* Stapf.), commonly known in the Visayan language as *tanglad*, has long been used in the Philippines for its many medicinal uses, such as for fever and as a diuretic. An infusion of the plant promotes digestion and stomach activity; it is carminative and tonic to the mucosal membranes of the intestine; it is useful for vomiting and diarrhea. An infusion made from the leaves serves as a refrigerant, and is also used as a remedy to high blood pressure, general weakness and debility. The plant, when used with ginger as a decoction, is used for stomachache, flatulence and indigestion (Quisumbing, 1978; Onaylos [1984]; Ticzon, 1996). Lemongrass tea or “infusion” is used in popular medicine in many countries. It is prepared with fresh or dried leaves and covers a wide range of indications (Negrelle & Gomes, 2007). With its versatility, ease of preparation, and ease of cultivation everywhere, lemongrass is a promising herb which can be used to help combat the harmful effects of carcinogens and free radicals, as well as promote health and wellness.

Ethanol extracts of lemongrass were found to possess antimutagenic activity (Vinitketkumnuen *et al.*, 1994) and inhibit colon carcinogenesis in rats to a significant extent (Suaeyun *et al.*, 1997). Aqueous extracts of lemongrass were also found to inhibit oxidative stress (Ojo *et al.*, 2006). The plant does not show any hypnotic effect and it is not toxic to test organisms (Negrelle & Gomes, 2007).

Lemongrass may contain some active compounds which may deactivate mutagens by directly trapping them or by involving liver enzymes, thus, lemongrass may serve as a source of chemo preventive agents. The mechanism for the protective effects of lemongrass against colon cancer is not clear but is suggested to be due in part to its antioxidant activity (Vinitketkumnuen *et al.*, 1994; Suaeyun *et al.*, 1997). It is also suggested that

lemongrass extracts inhibit lipid peroxidation by preventing free radical attacks on bio membranes (Ojo *et al.*, 2006).

Lemongrass, upon distillation, yields lemongrass oil which is one of the well-known essential oils in the world for many years. It is characterized by its yellow or amber color, and lemon-like odor. The major component of lemongrass oil is the aldehyde citral (about 70 %) which is responsible for the strong lemon-like odor of the oil. Other identified components of the oil are myrcene, geraniol, ethyl laurate, citronellol, terpineol, menthol, caryophyllene, linalool, citronellal, α -pinene, camphene and methyl heptenone (Torres & Ragadio, 1996).

Citral is chemically known as 3,7-dimethyl-2,6-octadienal. Citral (Fig. 1) derived from natural sources is a mixture of two geometric isomers, geranial (citral A) and neral (citral B). Both geranial and neral are light oily liquids. Geranial has a strong lemon odor while the lemon odor of neral is weaker but sweeter than that of geranial (Windholdz *et al.*, 1983).

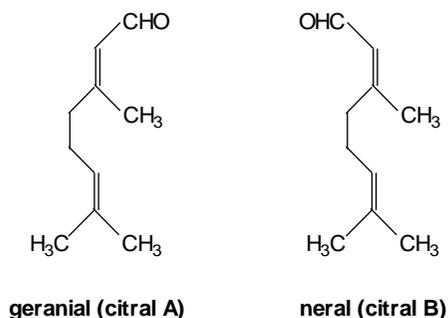


Figure 1. The two isomers of citral

Citral was found to possess anticancer property (Dubey *et al.*, 1997) and anti-mutagenic activity (Rabbani *et al.*, 2005). It is not mutagenic in itself but may prevent nuclear mutations by exerting anti-oxidant activity (Rabbani *et al.*, 2005). Furthermore, it exerts anti-cancer activity by causing apoptosis in human and mouse leukemic cell lines but not in normal mouse cells. Apoptosis is a major form of cell death which involves the activation of caspases from their inactive forms referred to as procaspases. It is associated with many diseases including certain cancers (Dudai *et al.*, 2005).

Lemongrass plants are often used by Filipinos in cooking, and the tea can be conveniently prepared by boiling the leaves (decoction) or by simply soaking them in hot water (infusion).

Objectives

This study determined how much of antioxidant activity and citral are present in the tea when lemongrass is prepared according to folk practices of decoction and infusion. Specifically, this study

1. measured antioxidant activity (in terms of percent diphenylpicrylhydrazyl or DPPH inhibition) and citral content (percent weight) on decoctions and infusions of fresh and air-dried above-ground parts of lemongrass;
2. compared antioxidant activity and citral content of lemongrass tea using fresh plants vs air-dried plants; and,
3. compared antioxidant activity and citral content of lemongrass tea using decoction vs infusion.

Scope and Limitation

This study measured citral content and antioxidant activity in lemongrass tea prepared in different ways. This involved the use of fresh and air-dried lemongrass plants at room temperature for seven days. Extraction procedures

made use of decoction by boiling the plant materials in water for three minutes, while infusion was done by steeping the plant materials in hot water for 30 minutes.

This study did not include using plants at different stages of growth. It did not determine the effect of extraction using other temperatures than what was indicated on citral content and antioxidant activity. It did not determine the effect of using other duration of extraction using decoction or infusion than what was indicated on citral content and antioxidant activity.

This study was conducted in April 2009 until March 2010 at Roblee Science Hall, Central Philippine University.

MATERIALS AND METHODS

Plant Collection, Preparation and Experimental Treatments

Mature, healthy and disease-free above-ground parts of lemongrass (*Cymbopogon citratus*) plants were collected from three different areas in Iloilo (Pavia municipality, and Districts of Jaro and Lapaz) and two baranggays in Buenavista, Guimaras (Brgy. Daragan and Brgy. San Isidro). Ten plants from each area were randomly chosen, and two stalks from each plant were taken as samples. A total of 20 stalks per area were collected. After collection, the 20 stalks from every field were randomly assigned to the four treatments with five stalks per treatment. Every treatment had a total of 25 stalks. Whole-plant specimen samples of *C. citratus* were submitted to the Department of Life Sciences, College of Arts and Sciences, Central Philippine University for identification and preservation.

Two treatments were employed in the study – treatment 1 (fresh vs air-dried) and treatment 2 (decoction and infusion). Thus the factorial experiment

was used, with four treatment combinations: (1) fresh decoction, (2) fresh infusion, (3) air-dried decoction, and (4) air-dried infusion. The completely randomized design (CRD) was used, with three replicates for each treatment combination.

The above-ground parts were used, that is, all plant parts except the roots. The wilted leaves were removed and the plants were then washed with water. The fresh plants were cut into small pieces, about one-half cm or smaller, then subjected to assays immediately. However, whole plants were stored in the refrigerator when not needed for assays. Fresh plants were used not more than three weeks after being collected and stored in the refrigerator.

Air-drying was carried out for seven days under the shade at room temperature, according to Torres and Ragadio (1996). The dried plant materials were stored in airtight containers and were used within three weeks after these were stored. The plant tissues were only cut on the day of extraction and antioxidant assay or citral content analysis. Minimal processing was applied to the plant samples to prevent the loss of citral (Barbosa *et al.*, 2008).

Moisture content was determined by drying the plant materials at a constant temperature of 105 ± 5 °C for nine hours according to the ASAE standards as quoted by Barbosa *et al.* (2008). Three replicates were employed for each determination.

Chemicals

All chemicals used were of analytical grade. Citral (95% pure) and barbituric acid were obtained from Sigma-Aldrich, while DPPH was obtained from Sigma. Absolute ethanol (Sharlau) was obtained from a local distributor.

Extraction of Antioxidants and Citral

The extracts were prepared in the usual way of preparing hot tea beverage. Two grams of plant material were used for antioxidant activity assay, while 10 g were used for assay of citral content. The decoction was prepared by placing the plant material in 100 mL boiling distilled water for three minutes, while the infusion was prepared by steeping the plant material in freshly boiled distilled water for 30 minutes. The extracts were cooled, filtered and the volume was brought up to 100 mL using distilled water.

Antioxidant Activity Assay

The antioxidant activity of the extracts was measured using the diphenylpicrylhydrazyl (DPPH) assay according to Zaeoung *et al.* (2005). Two milliliters of 100 μ M DPPH solution in absolute ethanol was added to two mL of extract and mixed. The samples were allowed to react with DPPH for 20 minutes and the absorbance was measured at 520 nm (Lab Spectronic) after reaction was complete. Ascorbic acid (1% in distilled water) was used as positive control while distilled water was used as blank for all the samples. Preliminary analysis involved optimization of absorbance with the instrument, and the effect of dilution on antioxidant activity was monitored. The extracts were diluted four-fold and ten-fold, and the antioxidant activity was measured based on the diluted extracts.

Antioxidant activity was expressed as percent inhibition of the DPPH radical, and observed by the decolorization of the DPPH reagent from dark violet to a lighter tone or colorless solution. It was computed as follows:

$$\% \text{ inhibition} = \frac{A_{\text{distilled water}} - A_{\text{extract}}}{A_{\text{distilled water}}} \times 100$$

where $A_{\text{distilled water}}$ = absorbance of the blank
 A_{extract} = absorbance of the sample

This is also referred to as “quenching” of the DPPH radical (Molyneux, 2004). To obtain the correct comparison between fresh and dried plants, antioxidant activity was expressed as % inhibition per gram dry weight of plant tissue.

Assay of Citral Content

The presence of citral in the extracts was quantified using the barbituric acid condensation method according to Levi and Laughton (1959) and Laughton *et al.* (1962) with modifications. The barbituric acid reagent (0.3% by weight in 80% ethanol) was prepared as follows: 0.3 g of barbituric acid (BA) was weighed in a 100-mL volumetric flask. Then 20 mL distilled water was added and the reagent was dissolved by warming the flask in a hotplate. When all the solid had been dissolved, absolute ethanol was added to the mark and the reagent was equilibrated at 25°C using a water bath. The volume was brought to the mark with absolute ethanol after equilibration, and the reagent was mixed thoroughly.

The standard curve was prepared as follows: 25, 50, 75 and 100 mg of citral was weighed accurately using an analytical balance (Mettler Toledo) into four 50-mL volumetric flasks. These were then diluted to the mark using the BA reagent.

For the samples, about 20 g of the extracts were weighed in 50-mL volumetric flasks and diluted with the BA reagent. The samples, along with the standards, were incubated in a 25°C water bath for 40 minutes to allow reaction of citral in the samples with barbituric acid. After the reaction time, 1-mL aliquots were withdrawn from each volumetric flask and diluted to 250 mL using 20% ethanol. The absorbance of the standards and samples were measured at 336 nm (Shimadzu UV-Vis), with 1 mL of the BA reagent diluted to 250 mL of 20% ethanol as blank. The standards were prepared in duplicate,

while the samples, in triplicate.

Citral content of the samples was computed based on the standard curve and expressed as g of citral per 100 g dry matter of plant sample used (percent by weight).

Statistical Analysis

Experimental data were analyzed using two-way analysis of variance (ANOVA) at 5% level of significance using SPSS 10 Package to see differences in means of citral content and antioxidant activity obtained from lemongrass plants using different methods of drying and extraction techniques.

RESULTS AND DISCUSSION

Antioxidant Activity

Preliminary analysis. It was observed that extracts of fresh and dried lemongrass plant samples possess antioxidant activity (data not shown) against ascorbic acid, which is a widely-used standard. Citral (95%, Sigma-Aldrich) also has antioxidant activity which is almost the same as that of ascorbic acid.

Effect of dilution. It is of interest to determine the effect of dilution on antioxidant activity of the extracts since both fresh and dried samples have antioxidant activities. Figure 2 shows the antioxidant activity values of 2 g dried plant samples extracted by decoction. The decoctions were diluted to 1:4 and 1:10 from the original concentration. The undiluted sample for decoction showed 73.8% activity which is slightly lower than those of the samples diluted at 1:4 and 1:10 which are 79% and 79.4%, respectively. The antioxidant activity of the infusions were almost the same, regardless of the extent of

dilution. Thus, subsequent assays for the antioxidant activity of the lemongrass extracts utilized 2 g of plant material extracted with 100 mL water. These extracts were further diluted ten-fold (1:10).

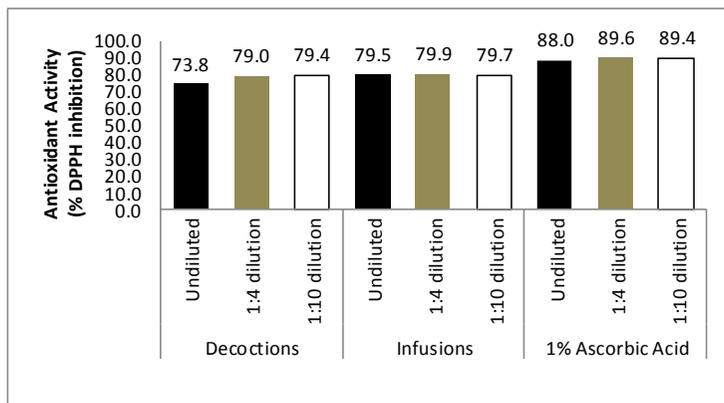


Figure 2. Antioxidant activity of air-dried lemongrass extracts at different dilutions

Antioxidant activity of dilute lemongrass extracts. As shown in Table 1 and Figure 3, the antioxidant activity of lemongrass extracts is higher in fresh plants ($\bar{x} = 63.3\%$) than in dried plants ($\bar{x} = 44.3\%$). Fresh plants extracted by decoction had higher antioxidant activity (68.8%) than those extracted by infusion (57.7%). On the other hand, antioxidant activity remained the same in air-dried plants, whether extracted by decoction or infusion.

These results show that the preparation of the plant materials did not significantly ($p > 0.05$) affect antioxidant activity, i.e., decoctions ($\bar{x} = 56.4\%$) had the same antioxidant activity as infusion ($\bar{x} = 51.1\%$). However, the antioxidant activity of decoctions is significantly ($p < 0.05$) higher in fresh plants than in dried plants. Similarly, the antioxidant activity of infusions is significantly ($p < 0.05$) higher in fresh plants than in dried plants. Thus, to get the optimal

benefit of antioxidants from lemongrass tea, fresh plants should be used and prepared by decoction. However, infusions of fresh plants are better than any of the tea preparations using dried plants.

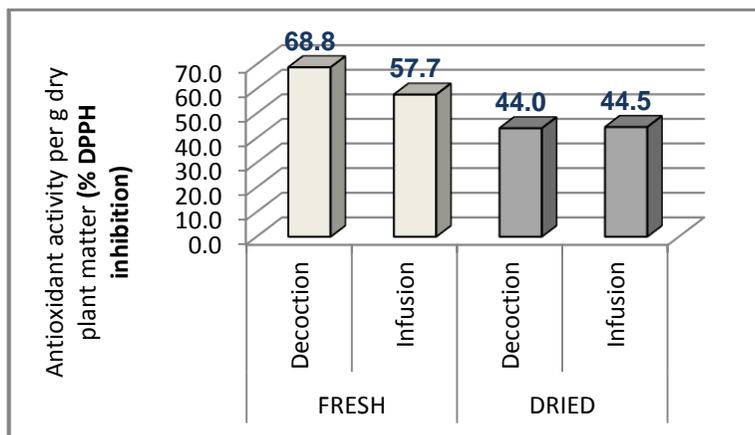


Figure 3. Antioxidant activity of fresh and dried lemongrass extracts prepared by decoction and infusion, and further diluted ten-fold

Table 1. Antioxidant Activity using Fresh and Dried Lemongrass Tissues Prepared by Decoction and Infusion

Type of tissue	Tea preparation		Mean
	Decoction	Infusion	
Dried	44.0 ^c	44.5 ^c	44.3
Fresh	68.8 ^a	57.7 ^b	63.3
Mean	56.4	51.1	

cv = 7.46%

abc Means followed by the same letter superscript are not significantly different at the 5% level of probability.

Comparison of these results with those reported by Cheel *et al.* (2005) on

dried lemongrass extracts suggests that antioxidant activity is not affected by the preparation of the plant material and the length of decoction or infusion. Their results on the antioxidant activity of the decoction (boiled for 2.5 h) and infusion (soaked for 15 min) of aerial powdered, air-dried lemongrass plants were 41.9% and 40.2% DPPH decolorization, respectively. In this study, decoctions and infusions of air-dried samples gave 44.0% and 44.5% DPPH decolorization, respectively, which are comparable with what Cheel *et al.* had reported.

Most antioxidant activity in leaves and fruits are due to the total phenolic content in these plants (Grzeszczuk *et. al.*; Roidaki *et.al.*, 2015). These phenolics are water-soluble and are conveniently extracted using hot water, which supports the findings that antioxidant activity is the same in infusions and decoctions. Degradation of phenolics due to exposure to heat and light takes place when the plant materials are dried, leading to loss in antioxidant activity. Thus decoctions of fresh plants materials provide better extraction of phenolics, which was reflected in the high antioxidant activity in the extracts of fresh lemongrass through decoction.

Citral Content

Figure 4 shows citral content in the extracts prepared from 10 g plant material. The kind of plant tissues used, whether fresh or dried, did not affect the citral content found in the extracts – dried plant samples, whether decocted or infused ($\bar{x} = 0.9265$), had the same citral content with the fresh samples ($\bar{x} = 1.0273$). However, the method of extraction affected citral content in the extracts. Extraction by decoction ($\bar{x} = 1.1174$) gave a higher citral content than infusion ($\bar{x} = 0.8364$). Table 2 indicates that both fresh and dried plants gave higher citral contents when prepared by decoction as compared to infusion. Thus, if one wanted to get the highest citral content from lemongrass plants, the tea must be prepared by decoction regardless of whether the plant used is fresh or dried.

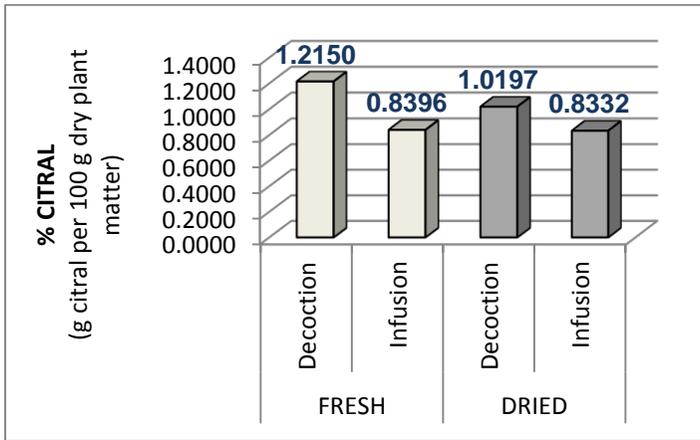


Figure 4. Citral content of fresh and dried lemongrass extracts prepared by decoction and infusion.

Table 2. Citral content of fresh and air-dried lemongrass tissues prepared as decoction and infusion

Type of Tissue	Tea Preparation		Mean
	Decoction	Infusion	
Dried	1.0197	0.8332	0.9265^{ns}
Fresh	1.2150	0.8396	1.0273
Mean	1.1174^a	0.8364^b	

cv = 7.79%

^{abc} Means followed by the same letter superscript are not significantly different at the 5% level of probability.

^{ns} Not significantly different at the 5% level of probability

Lemongrass oil, comprised mostly of citral, is extracted using steam distillation. This involves high temperature to break the oil glands in order to

release the oil (Schaneberg & Khan, 2002). Decoction involved placing plant materials in vigorously boiling water, which allows more extraction of essential oil through contact of the plant materials with the steam produced at the surface of the boiling water. This gave a greater yield of citral compared to simply soaking the plant materials in hot water. The essential oil of mint leaves are traditionally extracted by steam distillation and hydro distillation.

Hydro distillation extracts the oil faster and produces a greater yield since the leaves are in contact with boiling water, allows the leaves to move more freely as well as provides a greater surface area for heat to extract the oil from oil glands (Gavahian *et. al.*, 2015).

It has been reported that citral concentrations of 44.5 μM induced apoptosis in several hematopoietic cancer cell lines. The concentration of 44.5 μM is comparable to the amount of citral found in 1 cup (approximately 100 mL) of tea prepared from 1 g of lemongrass. Furthermore, a lesser concentration of 22.25 μM of citral was as effective as the standard staurosporine in activating caspase-3 enzymatic activity, which resulted in DNA fragmentation, and eventually cell death (Dudai *et al.*, 2005).

In this study, the amount of citral obtained by boiling 10 g of fresh plant samples in 100 mL of water was 1.2150 % by weight (or 1.2150 g citral per 100 g dry weight of plant material), while dried samples gave 1.0197 % by weight. Furthermore, the amount of citral present in 1 g of plant material was computed to be 0.012 g for fresh plants and 0.010 g for dried plants. Decoction using 1 g plant material in 100 mL water will give about 798 μM of citral using fresh plants, while it will be about 670 μM using dried plants. Figure 8 shows the comparison of citral content obtained by different preparations, and the extraction procedure used in this research gave a greater amount than what is needed to induce apoptosis for cancer cells according to Dudai *et al.*

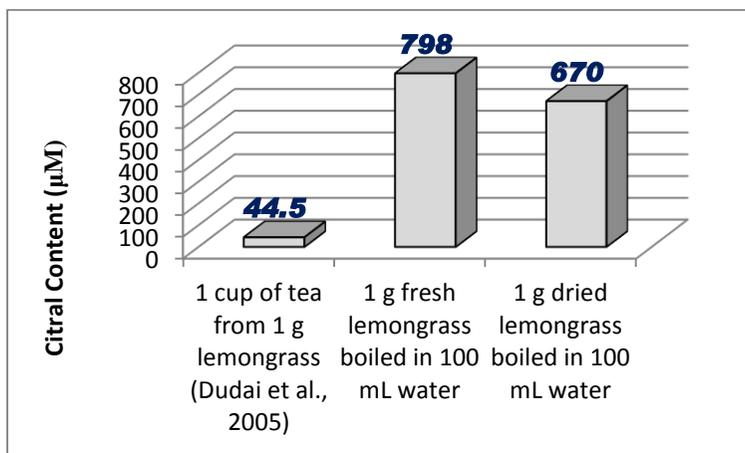


Figure 5. Citral content of lemongrass from different decoctions

Since citral content is shown to be high in the prepared extracts, a concern that may arise is whether or not citral may be toxic to an organism when taken in high amounts. Rabbani *et al.* (2005) tested the mutagenic potential of citral based on suggested reports that drugs administered above the therapeutic concentration might cause damage to the nucleus and result in mutagenicity in the organism. They found out from their results that citral has no mutagenic potential when tested in mice at a high dose of 50 mg citral per kg body weight. That is, citral in itself poses no harm, even when ingested in high doses.

CONCLUSIONS AND RECOMMENDATIONS

Antioxidant activity was present in decoctions and infusions of fresh and dried lemongrass plants, with decoctions of fresh plants having the highest value. On the other hand, citral was present in all extracts and the highest content was found in decoctions of the plants. The best way to prepare lemongrass tea is by boiling fresh plants.

It is recommended that a more detailed study should be conducted on the citral content of the water extracts of lemongrass using different parts of the plants, such as leaf sheath and leaf blade. The effect of soil and environmental conditions on antioxidant activity and citral content should be further studied.

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NORMS OF MORALITY AS REFLECTED IN THE 19TH CENTURY PHILIPPINE LITERATURE: A CONTENT ANALYSIS

Sharlene G. Gotico and Anna May Yap-Zerrudo

ABSTRACT

This study was conducted to identify the norms of morality as reflected in the 19th century Philippine literature. Content analysis was used in this study using the three approaches in literary analysis, namely Moral-Philosophical Approach, Feminism, and Historical-Biographical Approach. In moral-philosophical approach, the following are the norms of morality as depicted in Lopez-Jaena's *Between Kastila and Filipina*: Temperance and Patience. In Marcelo H. Del Pilar's *To Josefa Gatmaitan*, the following attributes can be seen: Courage, Fortitude, Simplicity and Virtue. Jose Rizal's *Letter to the Young Women of Malolos* exemplified the following: Piety, Fortitude/Courage, Prudence, and Resoluteness. Using the Feminist Approach, women at that time were regarded as "second class citizens" in a highly-patriarchal Philippine society, taking secondary roles in the home and in other aspects of their lives. Using the historical-biographical approach the Filipinos were repressed in their intellect and creativity because of the Spanish occupation of the Philippines. Their struggles and pains in being writers at a time of colonization are evident in their works.

Keywords: norms, morality, Philippine literature, Spanish Colonization, feminist approach, moral-philosophical approach, historical-biographical approach, 19th century literature

INTRODUCTION

Background and Rationale of the Study

Literature is a verbal art. It is an art whose medium is language used to affect the imagination. It results from the communication of thought and feeling through consciously organized language. It is a verbal art form that may be written or oral. Its oral form has transcended many generations through words of mouth, and its written form, through its permanence on the printed page. Literature, both oral and written, has affected the lives of many.

The Philippine history has been a picture of a colonized past. The Spanish colonial period, the longest in Philippine history marked a strong influence in the lives of many Filipinos. This colonization which started in 1521, the 16th century period and lasted until the 19th century has also produced significant contributions in the field of arts and literature, architecture, education, food, among others. Particularly, in the field of education, several ilustrados, or those Filipinos in the late 19th century were able to travel to Spain and other parts of Europe to study. They were the children of the middle class Filipinos who desired a high quality of education for their children. These children were educated in Spanish and exposed to Spanish liberal and European nationalist ideals. Having been educated in Spanish and exposed to Spanish and European nationalist ideas, the likes of Jose Rizal, Graciano Lopez Jaena, Marcelo del Pilar, and other ilustrados were able to write literary poems concerning issues faced by Filipinos in the Philippines.

Moreover, the role of women during the Spanish period was stereotyped in such a way that women were submissive and religious. This is the typical "Maria Clara", the ideal woman, diminished in societal role as compared during the pre-hispanic era. Before the Spanish colonization, history tells that pre-hispanic women can hold position in the society. The "babaylans", for example,

the female priestess held power as the source of spiritual gift that served as guidance to the people in the community.

Thus, The Philippines in the 19th century was understood more by going back to it through its literature. In order to do this, the Historical-Biographical Approach to analyzing literary text was appropriate. At the same time, the Moral-Philosophical Approach helped researchers understand and ascertain *what* is taught (Guerin, 1992). The Feminist Approach was used to read the chosen texts, in order to better understand the role and significance of women during the 19th century. Also, this approach helped identify whether or not women were given equal treatment as men in the text. These three approaches were used in this study in order to read, interpret theoretical understanding of the selected texts.

It is imperative to critically review the three selected texts because not so much have been written in order to fully understand these rare writings of the three great propagandists of the 19th century period. There have been few articles about the said literary works, but the articles available do not discuss in depth the ramifications of the selected texts.

General Objective of the Study

A content analysis was conducted to identify the norms of morality as reflected in the 19th century Philippine literature.

Specifically, this study aimed:

1. to identify 19th century Filipino norms of morality as reflected in the selected literary texts;
2. to document 19th century Filipino norms of morality identified in the selected literary texts.

3. to analyze critically the three selected literary texts such as *Between Kastila and a Filipina* (short story), *To Josefa Gatmaitan* (letter), and *To the Young Women of Malolos* (essay) from the 19th century Philippine literature;
4. to appraise the value of literature focusing on its “affective aspect.”

Theoretical Bases of the Study

This study employed the historical-biographical, moral-philosophical, and feminist approaches to texts.

The historical-biographical approach sees a literary work, chiefly, if not exclusively, as a reflection of its author’s life and times of the characters in the work (Guerin, 1992).

The moral-philosophical approach, as old as classical Greek and Roman critics, stresses that literature should be *dulceet utile* (delightful and instructive) (Guerin, 1992). It is concerned with content and values.

Feminist criticism examines the ways in which literature (and other cultural productions) reinforce or undermine the economic, social, and psychological oppression of women (Tyson, 1999).

Significance of the Study

On the international level, the findings of this study will provide readers around the world, particularly Filipinos who have lived abroad for a long time and those born and raised in a foreign country, a grasp of the Filipino culture and the ways of Filipinos in the past. As such, this will help them develop a sense of identity and pride for the Filipino culture.

On the national level, the findings of the study will also be beneficial to students of literature in other universities across the country. The findings can be used as an instructional material, being a record of tradition and artifacts, not only for literature subjects, but also for history, humanities, and sociology subjects.

On the regional level, the findings of this study will become an important resource to students and teachers of regional literature. Literature is viewed as an authentic medium for introducing students to the specific aspects of language and culture.

In CPU, in particular, where the course in Literature 200 (The Literatures of the Philippines) is required in most courses, as required by the Commission on Higher Education (CHED), the results of the study will provide teachers and students reference materials for instruction and further research. With the implementation of the K-12 curriculum in the Philippine Educational System, research outputs such as this would strengthen the resource materials in teaching literature.

Also, for the Religion and Ethics and Sociology subjects which are offered in Central Philippine University, the results of the study would be a good reference material in the discussion of Filipino ethics.

Moreover, CPU offers the subject Soc. Sci 19 (Rizal and his Social Ideals), thus, the research output in the same manner can be a good reference material.

This study will be beneficial to Filipinos in general, as they understand their own unique culture and the ways of their forefathers which gives them an identity of their own.

Scope and Limitation

This study was limited to the three chosen 19th century Filipino literary texts in the following genres: short story, letter and essay. Manuscripts included were in English, either originally in or translated to English. The study was limited to the identification of 19th century Filipino norms of morality as reflected in the three selected literary texts. Moreover, the three literary texts were analysed using the following elements: theme, setting and characterization. Further, it was limited to the documentation of these identified norms of morality.

METHODOLOGY

Research Design

This study utilized the descriptive research design.

The researchers looked for 19th century Filipino literature. To qualify, those that can be considered are works written by Filipinos during the 19th century, provided that the work is originally in English or an English translation is available.

In order to have an extensive search for manuscripts, the researchers went to big libraries in Manila, such as the National Library, Rizal Library of Ateneo de Manila University and the University of the Philippines Library where original manuscripts of 19th century Philippine literature are archived.

The researchers identified 19th century Filipino literature. The criteria for the selection of texts were the following: interestingness, rarity, accessibility, popularity of the literary texts, as well as the prominence of the writers or

authors. Also, the three selected texts represented three different literary genres namely short story, letter and essay.

In analyzing the texts, the researchers used three literary approaches such as, Moral-Philosophical, Historical-Biographical and Feminism.

Historical-Biographical Approach

According to Meyer (2003), knowledge of an author's life can help readers understand his or her work more fully. Events in a literary work might follow actual events in a writer's life just as characters might be based on people known by the author. Ernest Hemingway in "Soldier's Home" has clearly depicted this approach. In the story, the difficulties of a World War I veteran named Krebs returning to his small hometown in Oklahoma portrayed Hemingway's personal experience. Krebs has a hard time accepting the fact that his neighbors are not at all concerned about his personal encounter of the dreadful events in the war. These biographical evidences that show Krebs's hesitancy to keep to himself his war experiences shows Hemingway's own reactions on his return to Oak Park, Illinois in 1919.

Charters (2004), states that biographical criticism starts with the premise that stories, poems, and plays are written by human beings, and that important facts about the life of an author can shed light on literary texts.

Moral-Philosophical Approach

The approach is as old as literature itself, for literature is a traditional mode of imparting morality (Yap-Patron, 2002). This approach means examining the work's ideas and values in relation to a particular ethical system.

Clausen (1986) said that literary works usually embody moral problems and reflect moral attitudes, sometimes even moral theories.

According to Irmischer (1975) in Altick (1993), through the characters in a literary work, literature reveals the human motives; it invites identification and reactions. Moreover, in the study of Nawaz, it explains that moral-philosophical approach emphasizes the moral values and lessons and their philosophical impact on the life of an individual. Also, moral-philosophical critics believe that the larger purpose of literature is to teach morality and to probe philosophical issues.

Feminist Criticism

In Schilb and Clifford (2003), feminist criticism developed during the 1970s as an outgrowth of a resurgent women's movement. The goals of the feminist critic and the feminist political activist are similar to contest the patriarchal point of view as the standard for all moral, aesthetic, political, and intellectual judgments and to assert that gender roles are primarily learned, not universal. They hope to uncover and challenge essentialist attitudes that hold it is normal for women to be kept domestic, have secondary and subservient roles, and they affirm the value of a woman's experiences and perspectives in understanding the world.

DISCUSSION AND INTERPRETATION OF LITERARY MEANINGS

BETWEEN KASTILA AND FILIPINA (Graciano Lopez Jaena)

The story is a very short narrative that depicts life in the Philippines, a Spanish colony in the nineteenth century period. Although he specifically mentioned that he was not alluding to anyone in the narrative, anyone who is aware of the events during the Spanish period can say that the story may be possibly true. The two main characters in the story are Pepay, a mestiza, that is to say, a child born of a Spanish friar, and a Filipina, called as an India/Indio during the Spanish colonial period, and Ricardo, an old Spaniard who works in the colony as Inspector of the Provincial Administration.

Using the moral-philosophical approach, the following are the norms and standards of morality depicted in the text: gentleness, temperance, and patience.

The father of Pepay, although not described in detail in the story would be a picture of a Spanish friar as portrayed or depicted by Jose Rizal in his novels such as *Noli Me Tangere* and *El Filibusterismo*. Also, in the satirical sketch "Fray Botod" literally "Friar Big Belly" Lopez Jaena vividly portrays a Spanish cleric so utterly dissipated and depraved that he exists solely to satisfy his carnal appetites.

Pepay may have inherited some of the traits of the Spanish father, but the traits of the mother being sweet and gentle are those that prevailed in the character of Pepay. This is evidenced by Pepay's demeanor to what life brought her forth as a consequence of her marriage to Ricardo, as read in the story, "*...without foreseeing the future happenings that would embitter her life, gladly agreed to accompany him being anxious to see Spain and the marvels of Europe.*"

Moreover, these are the lines showing gentleness in the character of Pepay, "*...Pepay suffered silently, she was resigned to the unexpected change in the character of her husband, believing it to be the due influence of atmospheric variations and hoping that such tenseness would not last long.*"

"Pepay, always a charming and affectionate wife, trying to persuade her Ricardo to follow the right path, responded with ineffable sweetness to the pricks and impertinence of her unfaithful husband."

Using the Feminist Approach, one can find characteristics, attitudes, and behaviors that both work for and against the females in nineteenth century Philippine society.

To society's standards at that time, Pepay posed as beautiful – with the *alabaster skin of the father, with fascinating dreamy eyes, and a graceful gait*. It was for this reason that Ricardo fell desperately in love with her. In this context, the woman is seen and is loved not because of her intellectual gifts or pleasing personality but because of her physical features and nothing more.

On the other hand, quite a domineering woman, Solea, Ricardo's other woman, is a typical example of a "bad" girl (aggressive and wordy), (Tyson, 1999), for she *had sucked his brains*, causing Ricardo to become indifferent to his wife. Solea's sexual recklessness is illustrated by her alliance with a married man, and in the nineteenth century, her behavior merits her the label of a "sinful woman" whose unconstrained approach to love *destroyed her honor (puri)*, (Reyes, 2008).

By Ricardo's illicit affair with Solea, and Pepay's knowledge about it, she (Pepay), suffered silently – a typical female reaction. She is supposed to be demure, by society's standards, and that she should keep her misery to herself, all the more reinforcing the standard that between husbands and wives, the authority of the household rests on the former.

Domestication is further seen in Ricardo's wish *to dominate Pepay to the point of humiliation* (p.163). Feminism is grounded on the belief that women are oppressed or disadvantaged by comparison with men, and Ricardo's wish to dominate his wife Pepay is an example of such oppression.

In the historical-biographical aspect, the life of Graciano Lopez Jaena, his interests, and the things or subjects that he abhors are best seen in his writings, particularly *Between Kastila and Filipino*. The narrative is a satire of the real events in the Philippines during the Spanish colonial period in the nineteenth century.

Graciano Lopez Jaena made a clear portrayal of the characteristics of Spaniards in the Philippines through the description of the father of Pepay.

TO JOSEFA GATMAITAN (Marcelo H. del Pilar)

To Josefa Gatmaitan is Marcelo del Pilar's personal letter to his niece, Josefa Gatmaitan, dated March 13, 1889 when he was based in Barcelona in Spain. It is originally written in Spanish. It tells about his life in Spain, his experiences and the people that he had associations with. Most important of all, Del Pilar, in his letter, gives pieces of advice to his niece on issues about being a woman.

Using the Moral-Philosophical Approach, the following values may be seen in the text: courage, fortitude, simplicity and virtue. In the Feminist Approach, through his words, Del Pilar acknowledges the important role of the woman, as she wears many hats as a daughter, a sister, a wife, or a mother. In all her endeavors, the woman manages to do all her responsibilities, and at times, she does many things at the same time, the idea of multi-tasking. Del Pilar exalts women further by saying that in the many countries that he has visited, he has seen how virtuous women are: no vices and popular customs are predominantly dignified. He adds that for the woman to at least equal the man, if not surpass him, she must have the ambition to be educated.

From the historical-biographical perspective, Marcelo H. del Pilar and Jose P. Rizal, prime movers of the Propaganda Movement, both educated abroad realized the importance of education, more particularly in the expression of speech and ideals. Marcelo del Pilar, went to a school in Bulacan for his early years of studies, then his college in Manila for his Bachelor of Arts degree and University of Santo Tomas for his Bachelor of Laws. Jose P. Rizal finished his education at Ateneo de Municipal and went to Madrid, and Barcelona to pursue higher studies.

Rizal and del Pilar's love for education and thirst for knowledge led them both to compliment and congratulate Josefa Gatmaitan, niece of del Pilar, and the rest of the young women of Malolos when they took courage to write the petition to the Spanish governor-general to give them proper education.

LETTER TO THE YOUNG WOMEN OF MALOLOS (Jose P. Rizal)

Written in 1889, *Letter to the Young Women of Malolos* is an essay that addresses all kinds of women- mothers, wives, and the unmarried. It was written by Jose Rizal while he was in London, and the original text was written in Tagalog.

From the Moral-Philosophical realm, the following virtues are portrayed in Rizal's *Letter to the Young Women of Malolos*: piety, fortitude/courage, prudence and resoluteness.

Letter to the Young Women of Malolos is Rizal's letter to "his countrywomen" – to the young women of Malolos. Rizal, in this text, described women as *endowed with sweet disposition, beautiful habits, gentle manners, and modesty*. In the feminist approach, these are often the descriptions given to women, as if women, even in the nineteenth century, have always been depicted in a formulaic way: sweet, angelic, gentle, incapable of anger. While these descriptions are positive, and women will be happy to be described with such endearing adjectives and characteristics, Rizal continued to write that the women rendered complete deference and obedience to every word and request of the so-called *fathers of the soul* – the men.

CONCLUSIONS AND RECOMMENDATIONS

For the study with the title, *Norms of Morality as Reflected in 19th Century Philippine Literature*, the following are the findings:

1. The literary pieces produced in the Philippines during the 19th Century tell about the lives of Filipinos at that time. Topics range from relationships between and among people, including love, rebellion, and faith.

2. The following are the norms of morality depicted in Lopez-Jaena's *Between Kastila and Filipina*:

- a. Temperance
- b. Patience

3. In Marcelo H. Del Pilar's *To Josefa Gatmaitan*, the following attributes can be seen:

- a. Courage
- b. Fortitude
- c. Simplicity
- d. Virtue

4. Jose Rizal's *Letter to the Young Women of Malolos* exemplified the following:

- a. Piety
- b. Fortitude/Courage
- c. Prudence
- d. Resoluteness

5. Extrapolating further, using the Feminist Approach, it was seen from the three texts that women at that time were regarded as "second class citizens" in a highly-patriarchal Philippine society, taking secondary roles in the home and in other aspects of their lives, yet the three texts have also shown that women could be vengeful and daring if the situation called for it.

6. Reading the texts using the historical-biographical approach, much can be said about the difficulty of the writers' lives in Philippine society during the 19th Century. They were repressed in their intellect and creativity because of

the Spanish occupation of the Philippines. Their struggles and pains in being writers at a time of colonization are evident in their works.

7. In terms of courage, Filipinos were characterized as people who would rise when oppressed, as they would not allow themselves and their rights to be trampled upon. The same is happening in present-day Philippine society. Today's Filipinos are willing to fight for their rights and for their freedom.

8. Filipinos in the 19th Century were even-tempered and patient. They were willing to wait, to bide their time, and hope for good things to come. Present-day Filipinos are similar. In the face of difficulties, they are willing to wait, not get angry, and hope for better tomorrows.

9. Nineteenth century Filipinos were simple and led simple lives, wanting only what was rightfully theirs. While the world today has gone global, the simplicity of the Filipinos are still evident in their love for the simple joys of life – a complete family, a stable job to support this family, and the security of a roof above their heads. They may have dreams and aspirations for a grander life, yet the simple life is all right.

10. The Filipinos' love and faith for God was evident in the inclusion of prayer and church in the literary texts. When the tasks were daunting and life was difficult, 19th century Filipinos turned to God for supplication, a character that is apparent even in today's Philippine society.

11. Literary texts, in general, are produced and appreciated not only for their aesthetic value but also for their emotional appeal. It is from reading these texts that we become attuned to our own personal feelings and emotions. The situations and events depicted in the text, regardless of its genre, make us reflect on our own struggles in our personal lives.

RECOMMENDATIONS

The following are the recommendations of the study:

1. Literary texts produced by Filipino writers during the 19th century can be further studied using other literary approaches such as Marxist-Communist, Deconstruction, etc.

2. Studies about norms of morality depicted in Philippine Literature in the 21st century can be studied.

3. A handbook on Filipino norms of morality can be produced to be used by students taking courses on Personality Development and Humanities.

4. In as much as the results of this study can be a useful enrichment material for students taking a course on *The Literatures of the Philippines*, it can also be a beneficial discussion tool for courses such as *Rizal and His Social Ideals* and *Philippine History*. Also, it can be a good enrichment material in the teaching and learning of Religion and Ethics subjects, specifically *RE2: Christian Ethics in a Changing World*.

5. Filipinos who have been living abroad for a long time can use the results of the study to strengthen their ties with the Philippines and make them understand and appreciate the Filipino culture better.

6. With the introduction of the K-12 curriculum in the Philippine Educational System, the results of this study can serve as an additional teaching and learning resource in the study of Philippine literature.

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CHRISTIANITY AND ISLAM IN THE SEARCH FOR PEACE IN THE SOUTHERN PHILIPPINES

Jerson B. Narciso

ABSTRACT

This study attempted to critically analyze the role that Christianity and Islam have played in the search for peace in Mindanao as represented by various Christian and Islamic religious organizations which have been deeply involved in the Mindanao peace process since post-colonial era up to the present. The identified common values and principles of peace and justice inherent to Christianity and Islam could be harnessed toward the establishment of a shared theological and political agenda, upon which, cooperation and collaborative works for peace and development in Mindanao should be anchored. Analysis of the socio-economic, political, religious, and cultural context reigning in Mindanao as well as the role that Christianity and Islam has played in the peace process was made from the perspective of a Christian and Islamic theology of liberation. The study employed a dialogical model of interpretation which took into account specific themes and texts that are central to the teachings of the Bible and the Qu'ran. Likewise, the novel was used in the understanding of Christian and Islamic concepts of peace and justice as well as in identifying common theological and political agenda for peace in Mindanao. The study identified at least five areas of theological and political convergence between Christianity and Islam. These areas can be harnessed toward the formulation and establishment of a peace project in Mindanao that is historically and contextually relevant. The study showed that the roots and causes of conflict in Mindanao are rather complex than simple. Thus, there is no single explanation or solution to the problem. Not discounting the significant contributions that the previous peace initiatives have made in the peace process, the study suggested three political programs for lasting and genuine peace in Mindanao, namely: Economic, Cultural, and Political restructuring and transformation.

INTRODUCTION

Background and Rationale of the Study

The primary purpose of this study was to critically analyze the role that different religious organizations in the Philippines have played in the Mindanao peace process since the start of post-colonial era up to the present, in order to determine how far each of these organizations has addressed vital issues and problems that contribute to the Mindanao conflict and how religion could be harnessed positively towards the establishment of lasting peace in Mindanao.

The armed conflict in Southern Philippines has continued for more than four centuries and is considered one of the world's "longest" and "bloodiest" running armed conflicts (Philippine Free Press, May 27, 2000 issue). It is also known as the "largest and most persistent armed conflict in Southeast Asia" (Tan, 2003). It affects not only the people in Mindanao but also the entire Philippine society. It also contributes tremendously to the political, social and economic instability of the country.

Since the outbreak of war between the Philippine government and the Moro National Liberation Front in the early 1960s, various religious and civic organizations have intervened and explored peaceful means of resolving the conflict. Unfortunately, peace initiatives have not gained popular support among the general populace and their impact had been very minimal.

Historically, religion with its own ambiguities has suffered some negative setbacks having been identified with imperialism and colonization and the state's instrument of pacification and subjugation. The relationship of Islam and Christianity in the Philippines has also been described in polemical terms and therefore viewed as "enemies" and "rivals" rather than partners in the pursuit of peace for Mindanao.

This raises moral and political questions about the credibility and legitimacy of religion, and whether or not, religion could become a positive force in conflict mediation and in the pursuit of peace in Mindanao.

However, despite the prevailing negative perceptions about the role of religion in the Mindanao peace process, some sectors have expressed confidence that religion, if given a chance could become a potent force towards change and in the attainment of peace in Mindanao. This optimism is based on the conviction that peace is founded on the greatest values and traditions of every religion and that there are common values and principles inherent to Christianity and Islam which could be harnessed toward the establishment of a unified theological and political agenda for peace in Mindanao.

For example, the Bishop-Ulama Conference of the Philippines (BUC) in one of its recent national gatherings expressed the need to find a common and “unifying ground” and to locate the spiritual bases for peace from different religious traditions. They were also one in their observation that the “missing component in many failed peace efforts is the affirmation of the CONVERGENT SPIRITUAL AND CULTURAL BASES for peace. They believe that, for the peace process to succeed, it should be anchored not on a vague and undefined desire for peace but on a clear theological and contextual foundation. Thus, there is a need to come up with a well-defined and comprehensive theological and political bases (both Islamic and Christian) that is informed and validated both by the precepts and teachings of the scriptures (Bible and Qur’an), and the prevailing social, cultural, economic and political conditions in Mindanao if genuine cooperation and solidarity among different religious communities and the suffering masses of Mindanao is to be achieved.

This research was geared towards that direction. On a theoretical level, it raised the question whether or not it is possible for Christians and Muslims to identify and establish a common theological and political agenda that could

bring about peace in Southern Philippines. On a practical level, this research explored whether or not it is possible for Christians and Muslims to create structures and functional programs of cooperation and collaboration in the pursuit of peace and development in Mindanao.

Objectives of the Study

This study specifically aimed:

1. to briefly describe and analyze the history and roots of conflict in Southern Philippines.
2. to identify and critically analyze the roles that religious leaders and their respective organizations have played in the Mindanao peace process.
3. to study and analyze the theological and political implications of Christian and Islamic concepts and visions of peace on specific economic, cultural, and political conditions that contribute and perpetuate conflict in Mindanao, and to the role that religious leaders and organizations have played in the Mindanao peace process.
4. to identify and establish a shared and common theological and political agenda that could serve as foundational basis upon which all collaborative works for peace between Christians and Muslims in Mindanao could be anchored.

Significance of the Study

This research will contribute to the studies already made on the issue of conflict and struggle for peace in Mindanao. The findings of this research will provide a much broader and deeper understanding of the source and nature of the conflict. It will also help to define the significant role that Christians and Muslims play in the peace process and the attainment of peace for Mindanao. This research will also suggest new ways of dealing with the problem and a

kind of dialogical model or approach that could be developed in resolving the conflict. Moreover, research will also serve as a springboard for further studies towards the development of a Christian and Islamic theology of religions that is historically, theologically, and contextually relevant.

Scope and Limits of the Study

The main focus of this study was to identify and establish a common Christian and Islamic theological and political agenda that could serve as foundational basis for a practical and collaborative peace program for Mindanao. Thus, basically, its main consideration was to discuss a theological conception that addresses the texts and the major convictions of at least one interpretation of Christianity and Islam as well as the construction of a theology that addresses concrete social, cultural, and political realities reigning in Mindanao.

Assessment and analysis in this research were focused on the “praxis” of five (5) widely known Christian and Islamic organizations in the Philippines namely: (1) The Catholic Bishops Council of the Philippines (CBCP); (2) the National Council of Churches in the Philippines (NCCP); (3) the Philippine Council for Islam and Democracy (PCID); (4) the Ulama League of the Philippines (ULP); and (5) the Bishop-Ulama Conference (BUC).

These religious groups were chosen because they are known to be the only religious organizations in the Philippines that have established and have continuing programs for peace in Mindanao and consistently overtime participated in the Mindanao peace process. These groups are national organizations composed of members representing smaller local groups that have played a very crucial and significant role in the peace process for quite a number of years now.

The study described and analyzed critically the role that these five religious organizations have played in the Mindanao peace process since post-colonial times up to the present, to see how far each of these organizations has addressed vital issues and problems of historical and political domination, social injustice and discrimination, and cultural and economic deprivation which are prevalent in Mindanao. A critical analysis and evaluation was made on their visions and mission, methods and approaches, programs and actions, theological assumptions, and their over- all impact in the Mindanao peace process based on their documents and other written sources that were available in published or unpublished articles and documents.

METHODOLOGY

To provide answers brought to the theological problem that this research sought to address, and to meet the requirements set in its objectives, the researcher chose to analyze and give a theological perspective on the problem of conflict in Mindanao from the vantage point of a Christian and Islamic liberation theology which takes into serious account the voices and perspectives of the poor and the oppressed. Hence, the method for analyzing the conflict in Mindanao is from “below”, that is, from the perspective of the marginalized, not from the macro dominant and prevailing narratives of the government and the powerful sectors of Philippine society. In this respect, much of the accounts reflected in the narrative of the roots and causes of conflict in Mindanao were deliberately taken from the side of the marginalized. This is not to deny however, that there are other valid views and perspectives from other sides which are maybe useful in analyzing the problem of armed conflict in Mindanao, nor to imply that all the faults belong to the government and the powerful.

As a scholar using a liberationist approach, the researcher is interested both with Christian and Islamic theologians who share the same perspective, thus, selectively choosing two widely known Christian and Islamic theologians, namely, Gustavo Gutierrez and Farid Esack, in concurrence with some other well-known Christian and Islamic scholars whose theological perspectives and emphasis on a contextual reading of the texts and preferential option for the poor and the oppressed, are found very relevant in addressing prevailing issues of socio-economic, cultural, and political deprivation and injustice in Mindanao. A combination of Gutierrez's and Esack's theological perspectives are deemed necessary, to provide a more comprehensive and balanced view of a Christian and Islamic theology of liberation that is meaningful and relevant in a heterogeneous context like Mindanao.

This study employed liberation theology perspective in selectively identifying and analyzing Christian and Islamic themes and texts in the Bible and the Qur'an which are found meaningful and relevant to the issues of economic, cultural and political marginalization and injustice in Mindanao and in the construction of a common theo-political agenda that is informed both by the Biblical and Qur'anic visions of peace and the existing realities in Mindanao.

The study gathered data and information from written documents such as: books, theses, dissertations, articles, position papers, circulars and unpublished documents dealing with the issue of conflict and the search for peace in Southern Philippines. Other main sources are the works of Gustavo Gutierrez and Farid Esack who seem to be the most representatives of Liberation Theology (Christian and Islamic perspective) and whose thoughts are most valuable and significant in providing a theoretical and theological framework by which available data and information on the subject are analyzed. The research also relied heavily on hermeneutical works of some well known Christian and Islamic scholars on peace which are utilized in the

formulation of a common theological and political agenda towards the attainment of peace in the Southern Philippines.

Personal interviews with key informants representing various smaller religious groups and organizations in the Philippines were conducted to provide space for “smaller voices” to be heard and analyzed in the light of prevailing views on the peace process. Oral accounts gained from personal interviews are considered vital sources of information as they reflect experiences from the grassroots. They also provide information and data which are not made available in written documents.

RESEARCH FINDINGS

Results of the study showed that the nature of the Mindanao armed conflict is quite complex and much more complicated. No single description can provide accurate explanation of its roots and causes. As a whole, the study revealed that the Moro struggle in Mindanao has historical, political, economic, ethno-cultural and religious causes. It started with the Moro people’s struggle against Spanish and American rules and is fed by their continuing experiences of political, cultural and economic injustice and marginalization, the failure of the state to address their grievances, and the large-scale military operations in Mindanao which threatens their existence and identity as a people. This situation has given rise to popular discontent which led to persistent armed conflict.

The dominance of the rich and the powerful and the subjugation and marginalization of the weak and the poor have been the pattern of relationship that characterizes Philippine society. It can be said that the conflict is not between Muslims and Christians but between the dominance of the rich and the powerful and the powerlessness of the weak and the poor. The Moro struggle in that sense, must be understood from below (the underside of Moro

history), from the very core of the poor and struggling Muslim and other indigenous communities, not from the macro perceptions of the Philippine Government's national interests and the macro liberationists' political agenda.

The study and analysis of the role of Christian and Muslim leaders and their respective organizations in the Mindanao peace process revealed both positive and negative findings. No doubt, interfaith dialogues and other collaborative works undertaken by different religious groups and organizations have in one way or the other contributed to efforts towards the attainment of peace in Mindanao. Small scale livelihood projects, financial assistance to displaced families in times of war, "peace zones", "peace sanctuaries", peace-building programs, interfaith dialogues, position papers and calls for a negotiated peace agreement between disputing parties are important and have served their purpose. However, in as far as how these programs have addressed vital issues of equitable distribution of land and other resources, wider participation of the marginalized masses in the political processes, and the establishment of a just social order in Mindanao, remains uncertain.

As observed, elements of division, competition, doubts, mistrust and conflict brought about by sectarianism, absolutism, and narrow sectoral interests, are still present within and among different religious organizations. Moreover, as the study shows, there is a lack of a clear common theological and political agenda upon which all peace efforts and collaborative works between Christians and Muslims in Mindanao could be anchored.

In spite of negative perceptions that pits Islam and Christianity as "natural enemies", the study showed that the identification of a common theological and political agenda for peace in Mindanao that is informed both by Islamic and Christian faiths is a viable project. However nuanced, Christianity and Islam share common values and principles such as, the universality of God, interrelatedness and interdependence of all reality, love, righteousness, justice,

equality, and peace. These can be harnessed to serve as foundational basis in the formation of a unified theological and political agenda that could bring about genuine and lasting peace in political injustice reigning in Mindanao. This study, therefore, recommends a three-pronged peace agenda (based on Christian and Islamic visions of peace) namely: 1.) Economic transformation; 2.) Cultural transformation, and 3.) Political transformation.

As shown in the study, the economic marginalization of the Muslim masses is at the center of the peace challenge in Mindanao, thus, peace-building in Mindanao would mean, inclusion of key issues of reparations, economic redistribution, and land reform. To address the issue of landlessness which significantly contributes to poverty among the Muslim masses, the Philippine government needs to legislate laws to regulate and limit the size of the family holding of land and in the process implement land redistribution program to cater the needs of the landless masses in Mindanao. Peace-building in Mindanao would also mean exploring and pursuing a fair and inclusive economic policy that serves the best interests of the poor and the marginalized.

Social and cultural reforms are also one of the key ingredients of lasting peace and development in Mindanao. To address the problem of conflict in Mindanao, a culture of peace and mutual recognition of both Islamic and Christian values and culture, has to sink deep into the social fabric where cultural openness, social unity and pursuit of peaceful means to resolve conflict is appreciated and practiced by all. The solution to the Mindanao problem is anchored on the creation of a national consciousness sensitive to cultural diversity. This means, the government and the majority Filipino populace should recognize the value and distinctiveness of Moro cultures and identities. Consequently, it also means that the government needs to adopt culturally-sensitive policies that seek to honor and preserve Islamic cultural heritage.

The Mindanao problem is also a political and structural problem. Thus, it requires a political and structural solution as key dimension. No significant changes in so far as addressing the problem of conflict in Mindanao can take place unless policies change; and for these change to happen, the country's politics needs to change toward more participation, involving especially the marginalized sectors in making decisions that affect them.

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PERSPECTIVES TOWARDS SCHOOLING OPPORTUNITIES OF A MOST AT-RISK POPULATION OF ILOILO CITY

Marie Melanie J. Javier

ABSTRACT

This study investigated several demographic features of a Most At-Risk Population (MARP) of Iloilo City, specifically, Commercial Sex Workers (CSWS). It also investigated their residency status, vocational training history and views regarding the opportunity for schooling for an alternative livelihood. It also aimed to determine the selection criteria for those who would participate in this schooling. A take-all sample of all registered 131 CSWs who worked as masseuses/masseurs, Guest Relations Officers(GRO) and dancers in the city was taken. Data was gathered through a one-shot questionnaire. Frequency distribution was used to describe data, while Chi-square was used to determine relationship between nominal variables. Regression analysis was used to predict the length of time the respondents were willing to commit given two interlaying variables. The survey showed that the registered CSWs of Iloilo City were mostly females, single and in their prime years (21-29 years old). They were sufficiently educated, mostly being high school undergraduates to college undergraduates. Many of them had one child. They were mostly transients coming from different parts of the Philippines but most were from Negros Occidental, Cebu and Manila. Their main work areas were in JM Basa St. while majority had not undergone vocational training, a close number of them had undergone training mostly in massage therapy at TESDA. The CSWS welcomed the opportunity for a different livelihood to better help their families and gain community respectability. Many were willing to accept a scholarship and study Culinary Arts for a short time but most were willing to complete a four-year college degree. They planned to stop schooling if they would encounter financial difficulties. Others did not like to study due to loss of income as bread winners. The critical selection criteria for potential scholarship grantees are age, civil status, number of children, and educational level.

INTRODUCTION

Background of Study

A 2013 Global Report on human trafficking by the United Nations Office on Drugs and Crime (UNODC) provides new information on a crime that shames humanity. According to the report, the most common form of human trafficking (79%) is sexual exploitation where the victims are predominantly women and girls. In the Philippines, the state of sexual exploitation and trafficking has an appalling history. A 2010 compilation of researches by Rhode Island University on trafficking of Filipinos to foreign countries reveals the magnitude of abuse against the females of this country. In 1991, Filipinas were being sold in Japan, often to the Yakuza, at \$2,400 to \$18,000 each. According to a press statement of the Bangladesh National Women Lawyers (1998), in Japan, 150,000 Filipina women have been trafficked into prostitution (<http://www.unodc.org/unodc/en/human-trafficking/global-report-on-trafficking-in-persons.html>).

In African countries, particularly Nigeria, one hundred-fifty Filipinas were sold into prostitution to night club operators (Dalagin, 1995).

In 2001, statistics claim that around 500,000 Filipinos of mixed gender are into prostitution, most of them are young girls. In the Philippines, 75,000 children are being prostituted. The Philippines ranks 4th in the world for child prostitution and 3,366 children annually are forced into prostitution (from <http://www.slideshare.net/andrea1129/child>).

In 2010, the Philippines was in the US Trafficking Tier 2 Watch List for two years in a row. Trafficked women related that they left farming activities in Mindanao in September 2010 hopeful of promised high paying domestic jobs in the Middle East and a good life for them and their families (from trafficking.org.ph/v5/index.php?option=com_content&task=view&id=3496&Itemid=56).

For neighboring Singapore, Filipino trafficking is considered an all time high in 2008. The modus operandi essentially has illegal recruiters promise young women non-existent jobs as waitresses or guest relations officers in restaurants and hotels in Singapore. Expecting to work in legitimate jobs, Filipinas end up working as prostitutes. They are forced to provide sexual services to customers and earn commissions from alcoholic drinks to enable them to pay the S\$1,000 to S\$4,000 they allegedly owe their handlers (Uy, 2008).

In the Philippines, Angeles City is considered to be the hub where 75% of child prostitution is happening (from <http://www.slideshare.net/andrea1129/child>). In the Visayas, Cebu has become a hub for trafficking child prostitutes. It is estimated that there are 10,000 young girls trafficked into sex slavery as the market is growing according to Father Heinz, a Catholic priest who has been involved for more than a decade in initiatives to beat the pimps and child-traffickers. Cebu remains a destination, source and transit area for human trafficking, where women and children victims are brought to be “processed” (Uy, 2008).

The scenario in Western Visayas is no different. Boracay is the hub as it has drawn transient visitors to the island and surrounding areas for the past years. The End Child Labor Prostitution, Child Pornography and Trafficking of Children for Sexual Purposes (ECPAT), an NGO that combats child prostitution, presented a report on the extent of child prostitution in Boracay. It reported that there are six bars that tolerate child prostitution. Another study on commercial sexual exploitation of children (CSEC) in Boracay cited by the Department of Social Welfare and Development (DSWD) identified 11 young women and three boys most of whom were actively involved in the sex trade (Angelo, 2009).

Iloilo City, as a growing metropolis faces the same situation. A news article in the Daily Guardian dated November 25, 2012, states that the Iloilo City government and national government agencies plan to meet to plot solutions to the rising prostitution of minors in the metropolis. The article mentions that public high school students are being pimped particularly in the Smallville area (Angelo, 2012).

In the context of this research the role of education is premised to bring about a better life for people and therefore the uplift of society. This research focused on the schooling perspectives of people caught in the sex trade or generally known as the Most-At-Risk Populations (MARPS). Most At-Risk Populations (MARPS) are individuals who are at high risk of acquiring and transmitting HIV (Human immunodeficiency virus) and AIDS (Acquired Immune Deficiency Syndrome) because they engage in behaviors that predispose them to acquiring HIV (from <http://nascop.or.ke/marps/>). Of this general population, this research focused on the commercial sex workers (CSWS). They are men and women peddling sexual services, not out of a social or psychological need, but as an income-generating activity or form of employment (from <http://prostitution.procon.org/view.answers.php?questionID=000849>). Considering their high-risk livelihood, this research aimed to survey their perspectives for an alternative livelihood through a free educational opportunity.

According to Margie Cook, author of the UNICEF/Australian Aid Report for the Philippines (1998), there are three common causes of their vulnerability to this trade: (from <http://www.usaid.gov/pressroom/record.cfm?id=10444>).

1. Impoverished living conditions in semi-rural or urban areas
2. Jobless parents
3. Experiences of sexual abuse

A review of related studies shows that tangential studies have been made on education and MARPS. A study by Jacobi (2008) investigated the use of alternative literacy education to juvenile recidivists who found little or no success in traditional schooling. Alternative practices such as writing workshops and local and national publishing opportunities offer incarcerated juveniles vital opportunities for achieving meaningful literacy skills which can contribute significantly to youth offenders' positive self-esteem and self-image.

An article by Arnold, Stewart and McNeece (2000), focused on the need of a variety of intervention for street walking prostitutes. It asserts that few community-based programs exist to provide outreach services to help these individuals get off the street and into treatment. It also suggests that intervention is needed regarding substance abuse, mental health problems, child custody, victimization, glamorization of prostitutions and describes the need for community collaboration.

A case study of a former female sex worker testifies to the role of a holistic intervention to leave the sex industry. Beverly Carter was a FSW for 30 years but today, aged 47, Carter is free from alcohol, drugs and prostitution, citing a 12-step drugs programme and a conversion to Christianity as her turning points (Aumord, 2009).

An investigation of researches on commercial sex workers show a wealth of studies from the medical point of view or specifically on the HIV/AIDS exposure and not from the sociological and pedagogic perspectives. An article by Liddle and Hogue (2000) introduces an intensive, family-based preventive intervention for high-risk adolescents called Multidimensional Family Prevention which combines the advantages of standard prevention models (curriculum based and protection focused) with those of psychosocial treatment models (assessment based and problem focused).

A study of Potter, Martin and Romans (1999) comparatively looks at one demographic characteristic of sex workers in the Otago Women's Child Sexual Abuse (OWCSA). It looks at the family environment of sex workers. The research shows that sex workers' families were of lower socio-economic status and had experienced more parental separation than had the OWCSA families. The sex workers were more likely to have left home early, to have become pregnant before the age of 19 years and to not have completed tertiary study.

For gender, a study by Weinberg, Shaver and Williams (1999) examines gender differences in the work of 140 sex workers in the San Francisco Tenderloin area. In this study, men, women and transgender men who are workers were the subjects. Looking at work-specific characteristics, the study found that women do not suffer inequities of income.

A research on educational level by Solomon, Smith, and Del Rio, (2005) studied its relationship with sexually transmitted diseases and risk-taking behavior among sex workers in Quito, Ecuador. Lower educational level was associated with more STIs, poorer knowledge of HIV/AIDS, earlier first prostitution, willingness to engage in group sex and work on the street, and presence of non-paying sexual partners. CSWs with lower educational levels were disproportionately afflicted with STIs and participated in more high-risk behaviors. Low educational level may predispose CSWs to STIs and associated risk factors.

Childbearing and schooling were studied by Hofferth, Reid, and Mott (2001). The study shows that there is a significant negative impact of a teenage birth on rates and years of completed schooling.

Objectives of the Study

The general objective of this study was to determine the perspectives or ideas of the commercial sex workers towards educational opportunities. This research specifically aimed to:

1. describe their personal demographic profile;
2. describe their work-related demographic profile;
3. describe their vocational training history;
4. determine their schooling perspectives; and to
5. determine the selection criteria for those who are willing to study.

Conceptual Framework

This research is both a survey and a relational study. The relational study is used as basis for the selection of possible grantees of a scholarship program. As a relational study, the demographic features of sex, age, civil status and educational attainment are the independent variables and the willingness to study is the dependent variable.

Significance of the Study

The data generated from this research may serve as basis for an educational intervention program for the future of the CSWs who are seeking for an alternative livelihood. The demographic profile will give direction to educators and educational institutions as to the scope and limit of such a program, or whether this population will in fact, be willing to take an opportunity designed to help them have a new life. The data will also be useful to other educators and researchers who would study different variables related to the MARPS or CSWs in particular. It fills an information vacuum regarding the profile of CSWs in Iloilo City.

Local, national and international government agencies can benefit from the profile and attitudes of the CSWs. It could also be used by NGOs specifically those working with this population like the ones earlier cited in the related literature. The data can also be used to generate support from partners and funding agencies for the educational intervention.

Scope and Limitations of the Study

The respondents of this research were limited to registered CSWs only. The freelancers and street workers were excluded. While the sex trade involves both the Buyers and the Sellers, the respondents were Sellers only. They were further limited to those who come to the health clinic for medical check-up. The data collection venue was limited to this area only. No data collections was done in their areas of work.

METHODOLOGY

Considering the objectives of the study, a quantitative-qualitative descriptive research was used. A one-shot researcher-designed questionnaire in Hiligaynon or Tagalog was used for the quantitative data. The questionnaire with a total of 18 questions was validated by experts and pre-tested on 12 CSWs. The portion inquiring about attitudes was in a yes-no format. A focused group discussion followed after all the questionnaires were collected for further elaboration of some of the questions. Purposive sampling was used. The target respondents of this study were commercial sex workers (CSW) of any gender who were registered with the Social Hygiene Clinic, Iloilo City and who went to the health center for medical checkup as required for their pink cards. The number of registered CSWs varied from month to month. However, as of March 14, 2013 there were 131 registered CSWs. A take-all sample size was chosen. For statistical analysis, frequency distribution was used for descriptive data, chi-square for relational and regression analysis for predictive data.

RESULTS

Table 1 shows the profile of the registered CSWS of Iloilo. Majority at 85.5% are females, between 21-29 years old, single and with one child. Many of them at 33.6% are high school undergraduates. Many of them are transient workers but most of them at 26.7% are from Iloilo City. Their work area is generally at J.M. Basa Street. For vocational training, most of them at 59.1% do not have vocational training but for those who had training, it was through TESDA for the Massage Therapy program. Majority at 76.3% are willing to accept a scholarship to study cooking for as long as four years. A high majority at 91% will stop this schooling if money becomes a problem. Immediate loss of income as bread winners was the common reason given by those who refused the opportunity for a scholarship.

Table 1. Summary of Findings based on the Highest Number of Responses per Variable

Variables	Category	Total number of respondents	Highest number of Response		
			Category	f	%
Personal demographics	Sex	131	Females	112	85.5
	Age bracket		Prime Years (21- 29 years old)	79	60.3
	Civil Status		Single	101	77.1
	Number of Children		One child	48	36.6
	Educational Attainment		High School undergraduate	44	33.6
	Residency status		Transient	87	66.4
	Place of Origin		Iloilo City	35	26.7
Work –related demographic	Place of work	131	J.M Basa Street	35	26.7
Vocational Training History	Vocational Training	131	No Training	68	59.1
	Training Institution	63	TESDA	45	71.4
	Training program		Massage Therapy	43	68.2
Schooling Perspectives	Willingness to Study	131	Willing to study	100	76.3
	Area of study	100	Culinary Arts	49	49.0
	Length of time committed to studying		4 years	36	36.0
	Reason to self-terminate schooling		Financial reason	91	91.0
	Reason for refusing to study on a scholarship		Loss of income as breadwinner	9	29.0

Table 2 shows the four demographic features of sex, age, civil status and educational level as tested for significance their willingness to study. Only sex was not significantly related to willingness to study. Civil status and educational level are significantly related to willingness to study at 0.05 level of significance while age is significantly related to willingness to study at 0.01 level of significance.

Table 2. Relational Data of For Demographic Features and Willingness to Study

Variable	p value
Sex	.769
Age Bracket	.000
Civil Status	.020
Educational Level	.013

Level of significance for Age $p < 0.01$; for Civil Status and Educational Level $p < .0.05$

Table 3 shows the predictive data. Regression analysis was used to predict commitment to studying based on age and number of children. The table below shows that there is a negative relationship between age and number of years committed to studying. As the respondent ages, the length of time she is willing to study diminishes.

Table 3. Prediction Table for Number of Years Committed to Studying by Age of Respondents

Age of Respondent	Number of Years Willing to be Committed studying
18	2.596
19	2.508
20	2.420
21	2.332
22	2.244

Table 4 shows predictive data for number of children and years of commitment to studies. As for number of children, a negative relationship was also seen. Number of years committed to studying also decreases as number of children increases.

Table 4. Prediction Table for Years Committed to Studying by Number of Children of Respondents

Number of Children	Number of Years Willing to be Committed studying
0	2.196
1	1.907
2	1.618
3	1.329
4	1.040

DISCUSSION

The variables surveyed intended to profile the Commercial Sex Workers of Iloilo City. The data for age, sex, civil status, number of children and educational level show that they cut across all categories. While majority are high school undergraduates, the total percentage including the higher levels exceeds the lower levels. This means that the CSWS are sufficiently educated. Their residency status which includes transience, work place and place of origin show that migration accompanies the sex industry in Iloilo City. Specific work areas implies the recruitment by establishments by such migrant workers. The 25 places of origin of the CSWS again supports the migration practice in the sex trade in Iloilo City. The almost comparative percentage of those who underwent vocational training versus those who did not, shows that vocational training was a useful entry point in the sex industry. Majority received training in massage therapy but they are still in the sex industry aiming for higher tips. Free schooling is welcome to a big majority to be terminated only if money becomes a problem. Cooking is the popular choice. While many signified the intention to complete a four-year course, the rest of the population want short term training of 3-6 months only. Focused group discussion revealed monetary gain as the major advantage and loss of societal respectability as the major disadvantage of the trade.

None of the cited related studies specifically aimed at profiling CSWs of any country. The earlier cited study of Potter, Martin and Romans (1999) looked at one demographic characteristic (family environment) of sex workers in Otago, New Zealand, but this is not among those investigated by this research. The gender related study of Martin, Shaver and Williams (1999) examined gender differences among sex workers in the San Francisco Tenderloin area while this study examined whether it affected their willingness to seek a new life through education.

On the variable of educational level, the study by Solomon, Smith and del Rio (2005) varies from the current research. While the current research found out that the CSWs are sufficiently educated (mostly from high school undergraduates to college undergraduates), the study by Solomon et al. associated it with their high-risk conditions for sexually transmitted infections, HIV/AIDS and early entry into prostitution. For childbearing, the current study validates the findings of Hoffert, Reid and Mott (2001) where there is a significant negative impact on teen age birth rate and years of completed schooling. This study predicts a reduction in years of commitment to study as a CSW has more children.

The study also validates the claim of the UNICEF/Australia Aid in the Philippines (1998) that lists impoverished living conditions in semi-rural or urban areas and jobless parents as top causes to vulnerability to the sex trade.

CONCLUSIONS

The basic reason why Commercial Sex Workers (CWSs) in Iloilo City and other parts of the Philippines chose to work in the sex industry is need for income to support one self and close family members. An adequate education does not allow them to find jobs forself-sufficiency and so they turn to the high income opportunity of the sex industry and forego respectability and honest declaration of one's true identity. Between the two sexes, the women are more prone to succumb to this livelihood. Youth is a main asset in this trade. Migration is a juxtaposing issue to the sex industry. CSWS come from different parts of the Philippines. They come and go to Iloilo City depending on the job available to them. The transients are recruited and housed by registered clubs in the city. This issue of migration puts not only these workers at high risk- but their clients in the city as well.

The CSWs are generally indifferent to the idea of going to school again in preparation for a new livelihood. The reason most of them never continued schooling is the lack of money in the first place. But upon realizing the advantages of schooling through a scholarship, they are willing to take this chance. In studying they would rather choose skills related courses like cooking and computer.

For an educational program to succeed with CSW-students with a higher probability of staying in school, they should be between ages 18-25 years, at least high school graduates, single, and with none or at least one child only. Since majority of the CSWS in Iloilo City are transients, a long term intervention is not feasible. Only short-term courses will be suitable.

RECOMMENDATIONS

Based on the findings which led to conclusions, to the following recommendations are given to various institutions:

1. for schools, to conceptualize a short term academic and skilled-based program centering on culinary arts being the preferred discipline, specifically designed for exiting commercial sex workers taking into account the migratory issue;
2. for the Department of Social Welfare and Development to establish a program of counseling to students of public high school to detour them from joining the sex industry;
3. for other researchers to investigate related socio-psychological variables like family background, personal factors and individuals that encourage choice to be a commercial sex worker.

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**THE EXTENT OF USE OF ONLINE SOCIAL NETWORKS AND
INTERPERSONAL RELATIONS: THEIR IMPLICATION
TO TEACHING AND LEARNING**

Herly Fie U. Cervera

ABSTRACT

The study explored the extent of use of online social networks and the level of interpersonal relationships of both students and faculty. The study made use of the descriptive survey research design. It was found out and concluded in the study that the students-respondents are primarily female coming from the different year levels, in the adolescent and young adult stage, taking Bachelor of Arts program who utilize their personal computers for online social networking. It was also concluded that the faculty-respondents are mostly married, in the middle adulthood age, from the different departments of the College of Arts and Sciences, and are using their personal computers for online social networking. The students utilize more the online social networks than their teachers, though both the students and their teachers share similar level of interpersonal relationships. The extent of use of online social networks by the students relates significantly to their age and year level, while for faculty it was related to their age. The level of interpersonal relationship positively relates to students' year level, while it relates significantly to the departments where the faculty belongs. Lastly, it was concluded that the level of students' interpersonal relationship is not influenced by the extent of use of online social networks, while it is contrary to that of the faculty.

INTRODUCTION

Background of the Study

The use of social networks today is phenomenal. Across ages and borders, people use them for various reasons, be it for business, entertainment, information and the like. Among the many groups of online users, the students and teachers also engaged in such activities. Attuned with and immersed into the rapid technological changes, they easily find themselves accessibly using social networks like Facebook, Yahoo and Twitter, among many.

According to Ellison (2003), social network sites provide simple, inexpensive ways to organize members, arrange meetings, spread information, and gauge opinion. As more systems emerge, there will be greater capacity for groups to organize and participate in collective action, a hallmark of civil society.

On the other hand, Smith (2010) cited that, social media is growing and changing the way people live, the way they do business and the way they connect. The latest numbers indicate that in December 2009 the social network, Facebook surpassed 100 million active users in the U.S. and over 350 million worldwide.

He added that at present, many people use the internet every day as an integral part of their lives for sending email, chatting online, shopping, entertainment and business. Along with this growth in the pragmatic use of the internet, social networks are also becoming main stream. In the recent research from 2009 showing 46% of US adults have used a social network at least once, and 27% used one yesterday. This area of social computing has been the real area of growth and the data clearly shows how social computing is changing how ordinary people share, communicate and interact. These tools

are a great enabler for minority groups. It levels the playing field for them in many ways.

Review of Related Literature

Online social network sites as web-based services allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site. While the term "social network site" use to describe this phenomenon, the term "social networking sites" also appears in public discourse, and the two terms are often used interchangeably. The term "networking" was used for two reasons: emphasis and scope. "Networking" emphasizes relationship initiation, often between strangers. While networking is possible on these sites, it is not the primary practice on many of them, nor is it what differentiates them from other forms of computer-mediated communication (CMC).

Social networks constructed on digital platforms are becoming increasingly pervasive in all aspects of individual and organizational life. This special issue of *Information Systems Research* includes 10 papers that focus on the *interplay* between digital and social networks. The interplay draws attention to the fact that digital interaction among individuals and organizations is almost always embedded in, influenced by, and in turn influences a social network. The papers in this special issue collectively shed light on the technical, behavioral, and economic challenges and implications of such networks and contribute to our understanding of how the power of such networks can be harnessed (Agarwal, Gupta, Kraut 2008).

On the other hand, what makes social network sites unique is not that they allow individuals to meet strangers, but rather that they enable users to

articulate and make visible their social networks. This can result in connections between individuals that would not otherwise be made, but that is often not the goal, and these meetings are frequently between "latent ties" (Haythornthwaite, 2005).

Moreover, this trend of social networking on the web began with people wanting to reconnect with lost school friends. Then it expanded to sharing messages, music, and videos with people sharing pieces of their culture and life interests. Today, business/trade professionals are recognizing the profitable advantages of social networking sites, and are seeking niche networks to communicate fluidly with others in their line of work and outside their industry. Some of these advantages to business/trade networking sites are on demand information, quicker communication than through email, an improved culture at work, and a more personable and trustworthy professional presence with pictures, bios, and information for potential partners and clients to access.

Objectives of the Study

The study explored the extent of use of online social networks and interpersonal relationships of both students and faculty, specifically on their implication to teaching and learning. Specifically, the study answered the following problems:

1. identify the profile of the students in terms of:
 - 1.1. sex
 - 1.2 age,
 - 1.3 year level,
 - 1.4 course, and
 - 1.5 type of computer use.
2. identify the profile of the faculty in terms of:
 - 2.1 age,

- 2.2 civil status,
- 2.3 department, and
- 2.4 type of computer use.

3. determine the extent of use of online social networks of both students and faculty respondents;

4. determine the level of interpersonal relationships of students and faculty respondents;

5. assess the relationship between students' profile and their extent of use of online social networks;

6. assess the relationship between faculty profile and their extent of use of online social networks;

7. test the relationship between students' profile and the level of interpersonal relationship;

8. test the relationship between the faculty profile and the level of interpersonal relationship;

9. test the relationship between the use of online social networks and the level of interpersonal relationship of both the students and faculty.

Hypotheses

The following hypotheses are formulated:

Ho1: There is no significant relationship between students' characteristics and the extent of use of online social networks.

Ho2: There is no significant relationship between faculty characteristics and the extent of use of respondents of online social networks and their interpersonal relationship.

Ho3: There is no significant relationship between student characteristics and level of interpersonal relationship.

Ho4: There is no significant relationship between the faculty characteristics and the level of interpersonal relationship.

Ho5: There is no significant relationship between the use of online social network and the level of interpersonal relationship.

Theoretical and Conceptual Frameworks

The study was anchored on the Uses and Gratification Theory by (Katz, 1970 in Dominick, 1999) which reminds that people use media for many purposes. The theory provided four kinds of gratifications. One is information, where people want to find out about society and the world and to satisfy their curiosity. Second is personal identity where watching the television or other forms of new media like the internet arises in order to look for models of behavior. Third is the integration and social interaction, where media will be used in order to find out more about the circumstances of other people. Watching, listening, viewing the television, radio or online sites help people empathize and sympathize with the lives of others so that they may even end up thinking of the characters in the program as friends. Lastly, the uses for entertainment, where most of the time media was used for enjoyment, relaxation or recreation purposes.

Moreover, the Media System Dependency Theory by De Fleur (Baran & Davis, 2000) stresses that people's dependence on media grow with industrialization which is related to advances in communication technology, and changes in family and social relationships that drive people to the media as sources of information and entertainment. The theory of De Fleur is vital in answering the problem of the study on the extent of exposure of the participants to different forms of media such as print, broadcast, and electronic/new media.

Similarly, whatever the specific technological 'revolution' may be, technological determinists present it as a dramatic and 'inevitable' driving force, the 'impact' of which will 'lead to' deep and 'far-reaching' 'effects' or

'consequences'. This sort of language reflects an excited, prophetic tone which many people find inspiring and convincing but which alienates social scientists. Most famously, it pervades the writings of the Canadian media theorist Marshall McLuhan (d. 1980), who argued that communication technologies such as television, radio, printing and writing profoundly transformed society and 'the human psyche'. The technologies (or media) which he discussed in such books as *The Gutenberg Galaxy* and *Understanding Media* reflected his very broad use of the terms, making his famous claim that 'the medium is the message' even more dramatic (from: www://.aber.ac.uk/media/Documents/short/determ.html).

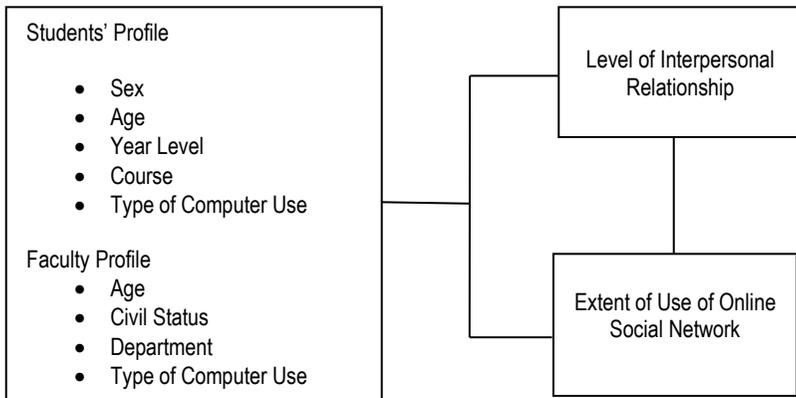


Figure 1. Schematic Diagram of the Study

Significance of the Study

The study will be beneficial to the following:

Students. Students in both mass communication and English language programs will be encouraged to make use of technology as a tool in handling media discussion, operation and other important undertaking that will help them connect with the latest media forms.

Teachers. Teachers from the College of Arts and Sciences will be able to enrich their discussion and participation in handling the latest technology through integration of online social network sites. This will create a new venue for them to facilitate their students' learning through classroom teaching with aids of technology.

Future Researchers. They will be given insights based on the findings of the study which later on may benefit in their field as they continue to search for ideas in relation to media studies. Furthermore, through the media-based classroom activities, all the recipients of this study (students, teachers, researchers) will be offered with new techniques and strategies in incorporating the use of online social network responsibly.

Scope and Limitation

The study determined the use of online social networks among the students from the Department of Languages, Mass Communication and Humanities and the faculty members from the College of Arts and Sciences. They were assessed based on their extent of use of the technology, online social networks (OSN) and their interpersonal relations and determine their implications to both teaching and learning processes.

Research Design

The study made use of the descriptive survey research design. The design is beneficial in getting the perception of the respondents regarding certain conditions they are exposed to. In the context of the study, the design was deemed appropriate in describing the respondents' extent of use of the online social networks and their level of interpersonal relations. With these description, the relationships between these variables were tested.

Respondents

The total population of AB Mass Communication and English students enrolled in the 2nd semester, SY 2010-2011 were the respondents of the study. They were assessed based on their extent of use of the online social network as well as their level of interpersonal relationship. In addition, all the faculty members from the seven (7) departments of the College of Arts and Sciences also participated in the conduct of the study. Similar research survey instrument was given to them.

Instrument

Both researcher-made and modified questionnaires were utilized in this study in gathering the needed data from the two groups of respondents. They were validated before being administered to the target respondents. The questionnaires are in three parts. The first part of the questionnaire for students asked data about their profile which included their sex, age, year level and course, and as well as their type of computer use. The second part is on their extent of use of the online social networks, while the third part is about their level of interpersonal relationship. For faculty, the first part on profile included their age, civil status and the department they belong. The second and third parts of the questionnaire elicited data on their extent of use of the online social network and their level of interpersonal relationship.

Data Collection

The researcher started with a review of the existing literature about online social network. With a dearth of specific information about students' extent of use of these online networks, the study was conducted. The researcher-made and modified questionnaires which were submitted to expert validation, were prepared for data collection. Upon approval and incorporation of corrections and suggestions of expert, the questionnaires were administered to the two groups of respondents. After all the data were retrieved, they were tabulated, analyzed and interpreted.

Data Processing and Analysis

The retrieved data were treated using the following statistical tools:

Frequency Count and Percentage. These tools were employed with regard to the profile of students such as sex, age, course and year level as well as the profile of the faculty members such as age, civil status, and the departments where they belong. The same tools were used to gauge the extent of use of online social networks and the level of interpersonal relationship of both the faculty and students-respondents.

Average Mean. It was used in order to get the average age of both the teachers and the students, as well as the level of interpersonal relationships of the teachers and the students.

Gamma and Chi-Square. These tools were used to test the significant relationship between the extent of use of the online social networks and the level of interpersonal relationship considering the faculty and students-respondents.

Table 1 shows the distribution of students-respondents according to profile.
 Table 1. Distribution of Students-Respondents according to Profile (N=93)

Categories	Frequency	Percent
Sex		
Male	26	28.0
Female	67	72.0
Age		
17 year old and below	16	17.2
18 to 20 years old	53	57.0
21 years old and Above	15	16.1
$x = 19.44$		
Course		
AB English	30	32.3
AB Mass communication	63	67.7
Year Level		
1st year	20	21.5
2nd year	25	26.9
3rd year	20	21.5
4th year	28	30.1

Table 2 shows the distribution of students-respondents according to the type of computer they used for online social networking. Considering their multiple responses, 54.7% used personal computers, 49.5% were rented, 40% were broadband-based, 17.9% have access through cellular phones and 1.1% utilized Sony PJP.

Table 2 Distribution of Students-Respondents according to the Type of Computer Used for Online Social Networking (Multiple Response)

Categories	Frequency	Percent
Personal	52	54.7
Rented	47	49.5
Broadband	38	40.0
Access through cellular phone	17	17.9
Others (Sony PJP)	1	1.1

Table 3 shows the distribution of faculty respondents according to profile. The average mean age of the faculty is 42.62. As to civil status, a good number of them are married (62.9%) while there are 29.6% who are single. There are only 3.7% who are separated and 1.9% widow. With regard to the departments they belong, 33.3% are from DLMCH, 16.7% are from the Social Sciences, 14.8% are from Chemistry and 13% are from Math and Physics. There are also faculty from Medical Laboratory Science (9.3%), Social Work (7.4%) and Life Science (5.6%) departments.

Table 3. Distribution of Faculty-Respondents According to Profile (N=54)

Categories	Frequency	Percent
Age		
No Answer	7	13.0
35 years old and below	16	29.6
36 to 45 years old	13	24.1
46 years old and above	18	33.3
$x = 42.62$		
Civil Status		
No Answer	1	1.9
Single	16	29.6
Married	34	62.9
Widow	1	1.9
Separated	2	3.7
College Department		
DLMCH	18	33.3
Math and physics	7	13.0
Chemistry	8	14.8
Social Science	9	16.7
Social work	4	7.4
Life science	3	5.6
Medical Laboratory Science	5	9.3

Type of Computer Used by the Faculty-Respondents

Table 4 shows the type of computer used by the faculty. Based on multiple responses, the data show that 77.2% are personal computer, 31.6% are from the office and 24.6% are broadband-based. In addition, 15.8% are rented while 7% are accessed through cellular phones.

Table 4. Distribution of Faculty-Respondents according to the Type of Computer Used for Online Social Networking (Multiple Response)

Categories	Frequency	Percent
Personal	44	77.2
Rented	9	15.8
Office	18	31.6
Broadband	14	24.6
Access through cellular phone	4	7.0

Extent of Use of the Respondents of Online Social Network (OSN)

As shown in Table 5, the students-respondents used the online social network to a moderate extent (37.6%), utilizing it for 9-24 hours in a week. In addition, 32.3% are using the OSN to a less extent which is 8 hours & below a week. It is worth noting that 30.1% are using it to a great extent which is 25 hours and above in a week.

Table 5. Distribution of Students-Respondents according to the Extent of Use of OSN (N = 93)

Categories	Frequency	Percent
Less Extent (8 hours & below)	30	32.3
Moderate Extent (9-24 hours)	35	37.6
Great Extent (25 & above)	28	30.1
Total	93	100

On the part of the faculty, 46.30% are using the online social network to a less extent which is 2 hours and below in a week. However, there are 31.48% who are utilizing it to a great extent for around 8 hours and above in a week. There are also 22.22% who used it to a moderate extent, which is for 3-7 hours a week.

Table 6. Distribution of Faculty-Respondents according to the Extent of Use of OSN (N = 54)

Categories	Frequency	Percent
Less Extent (2 hours & below)	25	46.30
Moderate Extent (3-7 hours)	12	22.22
Great Extent (8 hours & above)	17	31.48
Total	54	100

Comparing Tables 5 and 6 with the students and faculty respondents who are using OSN, it can be deduced that the students are more active users than the faculty. The former are more immersed into technological innovations, and have more time to spend in exploring the uses of social networks. However, this does not suggest - as shown in the data - that the faculty are far behind because even with the mean age difference of around 20 years from the students, they too can be considered as emerging users of online social networks. Moreover, this suggests that OSN really cuts across age and other socio-cultural boundaries, as supported by a good number of literature.

Level of Interpersonal Relationship (IPR) of the Respondents

Table 7 shows the distribution of students-respondents according to the interpersonal relationship through Online Social Network. The Table shows that 66.7% are using it to a moderate extent, 18.3% to a great extent, and only 15.1% to a less extent. This Table shows that the interpersonal relations of the students through online social networks are primarily to a moderate extent.

There appears the direct link in the moderate extent of use of online social networking to a moderate interpersonal relationship through OSN.

Table 7. Distribution of Students-Respondents according to their Level of IPR

Categories	Frequency	Percent
Low (2.60 and below)	14	15.1
Moderate (2.61-3.66)	62	66.7
High (3.67 and Above)	17	18.3
Total	93	100.0

$x = 3.22$ (Moderate)

On the part of faculty respondents as shown in Table 8, there are 53.7% whose level of interpersonal relationship is moderate. This is followed by 38.9% who have low level of IPR and 7.4 % who have high level of IPR. Relating with the previous data on the extent of use of OSN, it can be deduced that, though a good number of faculty have less extent of use of online social network, they are able to maximize its use to a moderate extent vis-à-vis interpersonal relations. Worth noting in OSN is that some *applications* like games, and *purpose of the said applications* like playing online games and posting may not really develop or enhance interpersonal relations. This implies that not all online social networks are social, or mere improving of one’s ability to relate with others.

Table 8. Distribution of Faculty-Respondents according to their Level of IPR

Categories	Frequency	Percent
Low (2.60 and below)	21	38.9
Moderate (2.61-3.66)	29	53.7
High (3.67 and Above)	4	7.4
Total	54	100.0

$x = 2.70$ (Moderate)

the significant relationship between age and extent of use of OSN. This implies that age counts in the extent of use of online social networks.

Table 10. Relationship between Age of Students-Respondents and their Extent of Use of OSN

Extent of Use of OSN	Age						Total	
	17 & below		18 to 20		21 & above		f	%
	f	%	f	%	f	%		
8 & Below "Less Extent"	9	56.25	13	24.53	5	33.33	27	32.14
9 - 24 "Moderate Extent"	6	37.50	21	32.62	3	20.0	30	32.72
25 & Above "Great Extent"	1	6.25	19	38.85	7	46.67	27	32.14
Total	16	100	53	100	15	100	84	100

Gamma = 0.369 (Significant) Sig. = 0.025

Table 11 shows whether there is significant relationship between the students' course and extent of use of OSN. The percentages do not indicate a marked difference across the two courses. Furthermore, the Chi-square value of 3.100 and p value of 0.212 higher than .05 indicate that there is no significant relationship between the course of the respondents and the extent of use of OSN. In other words, the course of the students does not affect the extent of use of the OSN.

Table 11. Relationship between Course of Students-Respondents and their Extent of Use of OSN

Extent of Use of OSN	Course				Total	
	AB English		AB Mass Communication		f	%
	f	%	f	%		
8 & Below "Less Extent"	13	43.33	17	26.98	30	32.26
9 - 24 "Moderate Extent"	8	26.67	27	42.86	35	37.63
25 & Above "Great Extent"	9	30.0	19	30.16	28	30.11
Total	30	100	63	100	93	100

Chi-square = 3.100 (Not significant)

p = 0.212

The data in Table 12 shows if there is any significant relationship between the students' year level and the extent of use of OSN. As shown in the Table, across year level vis-à-vis the extent of use of the OSN, most number of the respondents in the first year utilized it to a moderate extent (50%) while 40% in the second year level used it to a less extent. In addition, 40% in the third year level used the OSN to a moderate extent as well as to great extent. For the fourth year, a good number (42.86%) utilized the OSN to a great extent. The distinct difference in the percentages, with the Gamma value of 0.278 and p value of 0.020 lower than .05 indicate that there exists a significant relationship between the year level of the students and the extent of use of the OSN. In other words, the utilization of OSN relates to the year level of the students.

Table 12. Relationship between Year Level of Students-Respondents and their Extent of Use of OSN

Extent of Use of OSN	Year Level								Total	
	1 st year		2 nd year		3 rd year		4 th year			
	f	%	f	%	f	%	f	%	f	%
8 & Below "Less Extent"	8	40.0	10	40.0	4	20.0	8	28.57	30	32.26
9 - 24 "Moderate Extent"	10	50.0	9	36.0	8	40.0	8	28.57	35	37.63
25 & Above "Great Extent"	2	10.0	6	24.0	8	40.0	12	42.86	28	30.11
Total	20	100	25	100	20	100	28	100	93	100

Gamma = 0.278 (significant) p = 0.020

Relationship between the Faculty-Respondents' Profile and their Extent of Use of OSN

The succeeding three tables (Tables 13 to 15) present the relationship between the faculty profile and their extent of use of OSN. The data show that there is significant relationship between the civil status of the respondents and the extent of use of OSN. However, age and the department where the faculty belong do not significantly relate to their utilization of OSN.

Table 14. Relationship between Civil Status of Faculty-Respondents and their Extent of Use of OSN

Extent of Use of OSN	Civil Status								Total	
	Single		Married		Widow		Separated			
	f	%	f	%	f	%	f	%	f	%
No answer	1	5.88	0		0		0		1	1.85
0-2hrs "Less Extent"	6	35.29	16	47.06	1	100	1	50	24	44.44
3-7 hrs "Moderate Extent"	4	23.53	8	23.53	0		0		12	22.22
8 hrs & above "Great Extent"	6	35.29	10	29.41	0		1	50	17	31.48
Total	17	100	34	100	1	100	2	100	54	100

Chi-square=2.382

Sig.=0.881

Table 15 shows the test of relationship between the department where the faculty belong and the extent of use of OSN. With the percentages and the Gamma value of 0.106 (Sig. F = 0.472), it can be inferred that there is no significant relationship between the department where the faculty belongs and the extent of use of the OSN. In other words, the extent of use of the OSN is regardless of the department.

Table 15. Relationship between the Department of the Faculty-Respondents and their Extent of Use of OSN

Extent of Use of OSN	Department												Total			
	DLMCH		Math & Physics		Chemistry		Social Science		Social Work		Life Science				Med Lab Science	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%
0-2 hrs "Less Extent"	8	44.44	3	42.86	3	37.5	7	77.78	1	25.0	0		3	60.0	25	46.30
3-7hrs "Moderate Extent"	3	16.67	2	28.57	1	12.5	1	11.11	1	25.0	2	66.67	2	40.0	12	22.22
8 hrs & above "Great Extent"	7	38.89	2	28.57	4	50.0	1	11.11	2	50.0	1	33.33	0		17	31.48
Total	18	100	7	100	8	100	9	100	4	100	3	100	5	100	54	100

Gamma=-0.106 (Not Significant)

Sig F.=0.472

Relationship between the Students-Respondents' Profile and the Level of IPR

The succeeding four tables (Tables 16 to 19) show whether there is significant relationship between the profile of the students-respondents and their level of IPR. As shown in tables, the year level of the students has significant relationship to their IPR level. However, their sex, age and course do not have significant relationship to level of IPR.

As shown in Table 16, 73.1 % of the males and 65.5% of the female students have moderate interpersonal relationship. Furthermore, 19.2% of the males have low IPR while 23.9% of the females have high IPR. The difference in the percentages of IPR vis-à-vis sex does not warrant that there is significant relationship between the two variables. With the Chi square value of 3.26 (Sig. = 0.255), it can be inferred that the level of IPR is not significantly linked to whether the students are male or female.

Table 16. Relationship between Sex of the Students-Respondents and the Level of IPR

Extent of Use of OSN	Sex				Total	
	Male		Female		f	%
	f	%	f	%		
Low	5	19.2	9	13.4	14	15.1
Moderate	19	73.1	42	62.7	61	65.6
High	12	7.7	16	23.9	18	19.4
Total	26	100	67	100	93	100

Chi-square = 3.26 (Not significant) df = 2 Sig = 0.196

Table 17 shows that with a Gamma value of 0.178 (Sig. = 0.255), it can be inferred from the data that significant relationship between the age of the students and their level of IPR does not exist. This implies that the age

brackets where the students belong do not have significant relationship to the level of their IPR

Table 17. Relationship between the Age of the Students-Respondents and the Level of IPR

Level of Interpersonal Relationship	Age								Total	
	No answer		17 & below		18 to 20		21 & above			
	f	%	f	%	f	%	f	%	f	%
Low	2	22.2	4	25.0	5	9.4	3	22.2	14	15.1
Moderate	5	55.6	12	75.0	36	67.9	5	55.6	61	65.6
High	2	22.2	0	0	12	22.6	2	22.2	18	19.4
Total	9	100	16	100	53	100	15	100	93	100

Gamma = 0.178 (Not Significant)

Sig. = 0.255

As shown in Table 18, with the Chi- square value of 4.027 (Sig. = 0.134), it can be deduced that there exists no significant relationship between the two variables. This means that the level of IPR of the students does not relate significantly to their course.

Table 18. Relationship between the Course of the Students-Respondents and their Level of IPR

Level of Interpersonal Relationship	Course				Total	
	AB English		AB Mass Communication			
	f	%	f	%	f	%
Low	7	23.3	7	11.1	14	15.1
Moderate	20	66.7	41	65.1	61	65.6
High	3	10.0	15	23.8	18	19.4
Total	30	100	63	100	93	100

Chi-square = 4.027 (Not significant)

df = 2

Sig= 0.134

Table 19 shows that with the Gamma value of 0.195 (Sig. = 0.246), it can be inferred that there is a significant relationship between the year level of the students and their level of IPR. It can further be deduced that the students' IPR level may depend on their year level.

Table 19. Relationship between the Year Level of the Students-Respondents and their Level of IPR

Level of Interpersonal Relationship	Year Level								Total	
	1 st year		2 nd year		3 rd year		4 th year			
	f	%	f	%	f	%	f	%	f	%
Low	5	25.0	1	40.0	4	20.0	4	14.3	14	15.0
Moderate	12	60.0	21	84.0	12	60.0	18	57.1	61	65.6
High	3	15.0	3	12.0	4	20.0	8	28.6	18	19.4
Total	20	100	25	100	20	100	28	100	93	100

Gamma = 0.195 (significant)

Sig = 0.246

Relationship between the Faculty-Respondents' Profile and the Level of IPR

The succeeding three tables (Tables 20 to22) show whether there is significant relationship between the profile of the faculty and their level of IPR. As shown in tables, the department where the teachers belong has significant relationship to their IPR level, while their age and civil status do not significantly relate to their level of IPR.

Table 20 shows that with the Gamma value of -0.405 (Sig. = 0.07), it can be deduced that there is no significant relationship between the age of the faculty and their level of IPR. In other words, their IPR level does not depend on their age.

Table 20. Relationship between the Age of the Faculty-Respondents and the Level of IPR

Level of IPR	Age						Total	
	35 & below		36 to 45		46 & above		f	%
	f	%	f	%	f	%		
Low	4	25.0	3	23.1	9	50.0	16	34.0
Moderate	9	56.2	10	76.9	8	44.4	27	57.4
High	3	18.8	0	0	1	5.6	4	8.5
Total	16	100	13	100	18	100	47	100

Gamma = -0.405 (Not Significant) Sig. = 0.07

Table 21 shows that with the Chi square value of 1.24 (Sig. = 0.977), it can inferred that there is no significant relationship between the civil status of the faculty and their level of IPR. This means that the IPR level of the faculty is not affected by their civil status.

Table 21. Relationship between the Civil Status of the Faculty-Respondents and the Level of IPR

Level of IPR	Civil Status								Total	
	Single		Married		Widow		Separated		f	%
	f	%	f	%	f	%	f	%		
Low	6	37.5	13	38.2	0	0	1	50	20	37.7
Moderate	9	56.2	18	52.9	1	100	1	50	29	54.7
High	1	6.2	3	8.8	0	0	0	0	4	7.5
Total	16	100	34	100	1	100	2	100	54	100

Chi-square=1.24 (not significant) df = 6 Sig.= 0.977

Table 22 shows with the Gamma value of 10.873 (Sig. = 0.540), it can be deduced that the departments where the teachers belong have significant relationship to the level of their IPR, and vice versa.

Table 22. Relationship between the Department of the Faculty-Respondents and the Level of IPR

Level of IPR	Department												Total			
	DLMCH		Math & Physics		Chemistr y		Social Science		Social Work		Life Science				Med Lab Science	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%		
Low	3	16.7	4	57.1	4	50.0	5	55.6	1	25.0	1	33.3	3	60.0	21	38.9
Moderate	12	66.7	3	42.9	3	37.5	4	44.4	3	75.0	2	66.6	2	40.0	29	53.7
High	3	16.7	0	0	1	12.5	0	0	0	0	0	0	0	0	4	7.4
Total	18	100	7	100	8	100	9	100	4	100	3	100	5	100	54	100

Gamma = 10.873 df = 12 Sig. = 0.540

Problem 9. Relationship between the Use of OSN and the Level of IPR

Table 23 shows that with the Gamma value of -0.267 (Sig. = 0.085), it is inferred that there is no significant relationship between the extent of use of the OSN and the level of IPR of the students. In other words, the extent of use of OSN does not show remarkably the level of IPR of the students, and vice versa.

Table 23. Relationship between the Extent of Use of OSN of the Students-Respondents and the Level of IPR

Extent of Use of OSN	Level of IPR						Total	
	Low		Moderate		High			
	f	%	f	%	f	%	f	%
Less	6	40.0	19	33.3	5	23.8	30	32.3
Moderate	6	40.0	23	40.4	6	28.6	35	37.6
Great	3	20.0	15	26.3	10	47.6	28	30.1
Total	15	100	57	100	21	100	93	100

Gamma = -0.267 (not significant) Sig. = 0.085

face-to-face communication, to social relationships which are primarily conducted offline, and to traditional small groups.” But this was a decade ago. Such is not the case now especially with the enhanced online social networking sites.

In addition, a study conducted by *Ellison, Steinfield and Lampe (2007)* which examined the relationship between use of Facebook, a popular online social network site, and the formation and maintenance of social capital, concluded that “online interactions do not necessarily remove people from their offline world but may indeed be used to support relationships and keep people in contact, even when life changes move them away from each other.”

It can be added that, representing text, sound, and images digitally opens up new possibilities for both organizations and individuals. The cost of even very sophisticated technologies has decreased dramatically over the past ten years due to new manufacturing techniques, which has brought digital technology to ever-increasing numbers of people. In technologically developed countries, most people now have some form of access to a personal computer-all-in-one, universal, digital device. Being digital, computers can easily connect together to form networks through which hundreds of millions of people worldwide connect their computers to the ultimate network: the internet. People use the internet to communicate via e-mail cheaply and easily, to advertise their products, to stay informed, to carry out research at all levels, and even to shop and be entertained (Gribbin, 2002).

Furthermore, the article in Time Magazine in April 2010 issue, also mentions that, there are 49.6% female monthly active members in Facebook, 6.6% difference in number of friends of women over men. However, there were 2 million websites integrated with Facebook and 10,000 new websites integrating with Facebook every day. Now that Facebook has scaled up to a species-level event, the real work can start.

Baase (2003) pointed out that computers and the internet and World Wide Web make the collection, searching, analysis, storage, access and distribution of large amounts of information much easier and cheaper, and faster than before. The Web gives access to information and access to audiences almost unimaginable a decade ago. At present, the Web is so widely and commonly used that one sometimes forget how new and extraordinary it is. Through the use of Web sites, Usenet news groups, and discussion groups provide forums for information and comment on thousands of subjects. These groups provide opportunities for new social and community interactions, creating virtual communities. They range from hobbies to political discussions to professional groups to support groups for people with personal problems.

It is interesting to note that a pilot study that was run in September 2005 provided similar results, but also small, yet significant differences in terms of members' awareness of their profile visibility and their ability to control it: respondents a few months ago appeared less aware of privacy risks and of means of managing their own profiles. This evidence may suggest that the widespread public attention on privacy risks of online social networks is affecting, though marginally, some of their users.

Summary

The study explored the extent of use of online social networks and interpersonal relationships of both students and faculty. It answered questions regarding the students' and teachers' profile, the extent of use of online social networks and the level of interpersonal relationships of both students and faculty respondents. It also tested the relationship between students' and teachers' profile, and the extent of use of online social networks; the relationship between students' and teachers' profile, and their level of interpersonal relationship, and finally, the relationship between the use of online social networks and the respondents' level of interpersonal relationship.

It made use of the descriptive survey research design. A researcher-made questionnaire was utilized to gather data from the whole population of the faculty of the College of Arts and Sciences, and the students of AB English and AB Mass Communication. Frequency, percentage, Chi square and Gamma were used to analyze the data gathered in the study.

Findings

The following are the findings of the study:

1. Majority of the students are female (72%), 18 to 20 years old (57%) with the mean age of 19.44, and enrolled in AB Mass Communication (67.7%) course. A good number of students are 4th year (30.1%), though there are 26.9% in the 2nd year and 21.5% in both the 1st and 3rd year levels. Most of them (54.7%) used their personal computer for online social networking.

2. With the mean age of 42.62, a good number of faculty belong to age bracket 46 years & above (33.3%) and those who belong to 35 years old and below (29.6%). Most of them are married (62.9%), and belong to the DLMCH department (33.3%). The majority of them utilized their personal computers for online social networking.

3. As to the extent of use of the online social network, 37.6% of the students utilized it to a moderate extent, while 46.30% of the faculty used it only to a less extent.

4. As to the level of interpersonal relationships, 66.7% of the students and 53.7% of the faculty belong to a moderate level.

5. There is significant relationship between the students-respondents' age and year level to their extent of use of online social networks. However, sex and course do not significantly relate to the extent of use.

6. There is significant relationship between the civil status of the faculty respondents and the extent of use of OSN. However, age and the department where they belong do not significantly relate to their utilization of OSN.

7. The year level of the students has significant relationship to their level of interpersonal relationship, while their sex, age and course do not have significant relationship to their level of IPR.

8. The faculty department has significant relationship to their interpersonal relationship, while their age and civil status do not significant relate to their IPR.

9. There is no significant relationship between the extent of use of the online social networks and the level of interpersonal relationship of the students. On the other hand, there exists a significant relationship of these two variables in the case of faculty.

Conclusions

Based on the findings of the study, the following conclusions are drawn:

1. The students-respondents are primarily female coming from the different year levels, in the adolescent and young adult stage, taking Bachelor of Arts program who utilize their personal computers for online social networking.

2. The faculty-respondents are mostly married, in the middle adulthood age, from the different departments of the College of Arts and Sciences, and are using their personal computers for online social networking,

3. The students utilize more the online social networks than their teachers.

4. Both the students and their teachers share similar level of interpersonal relationships.

5. The extent of use of online social networks by the students relates significantly to their age and year level. The older they are and as they move from one year level to another, the more they utilize the online social network sites.

6. The extent of use of the online social networks by the teachers is significantly related to their age. The older they are, the lesser is their utilization of the online social networks.

7. The level of interpersonal relationship positively and significantly relates to students' year level. It does not mean, however, that being in the higher year level indicates a higher level of interpersonal relationship.

8. The level of interpersonal relationship relates to the departments where the faculty belongs. Teachers in some departments have higher interpersonal relationship than those in other departments.

9. The level of students' interpersonal relationship is not influenced by the extent of use of online social networks, and vice versa. Conversely, for faculty their level of interpersonal relationship is further enhanced by their utilization of online social networks.

Recommendations

Based on the findings and conclusions of the study, the following recommendations are offered:

1. The school administrators have to create a mechanism for well-managed online social networking sites to be able to link to the alumni and address the needs of the stakeholders.

2. The school administrators and teachers have to find ways to orient students regarding the proper use of online social networks and caution them regarding committing some unbecoming behaviour online.

3. Students and teachers alike should responsibly maximize their use of online social networking sites to optimize learning and teaching experiences.

4. Students and teachers alike should find opportunity to enhance their interpersonal relationship through online social networks.

5. Further studies related to online social networks, such as feasibility studies on online teaching and learning should be conducted.

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