



CPU Research NEWSLETTER

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CARES Presents Researches and ERMAT Course in Hong Kong

Once again Central Philippine University through its College of Agriculture, Resources and Environmental Sciences (CARES) was represented in the second International Conference on Solid Waste last May 5-9, 2013 at the Hong Kong Convention and Exhibition Centre. The biennial event is hosted by the Sino-Forest Applied Research Centre for Pearl River Delta Environment of Hong Kong Baptist University and is considered as one of the most important venues in Southeast Asia that brings together various stakeholders from academe, industry, government and non-government organizations at international level to deliberate on issues pertaining to solid waste management (SWM).

Two members of CARES presented their co-authored papers during the conference. Engr. Aries Roda D. Romallosa, a Faculty of CARES, introduced the joint project with GIZ and its output which is the newly offered post-baccalaureate degree Diploma in Environmental Resource Management and Technologies major in Solid Waste Management (ERMAT-

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Engr. Aries Roda D. Romallosa (left) and Engr. Klaus Hanuschke (right)

Dr. Irving Rio attends the 4th Asia Pacific Regional Conference On Service Learning



Dr. Irving Domingo L. Rio, Officer-in-Charge of the Human Resource Development Office (HRDO) of Central Philippine University (CPU), presented his paper on service learning during the 4th Asia Pacific Regional Conference on Service Learning in Hong Kong last June 4-10, 2013.

Social Science Department prior to taking on the new challenge of heading HRDO, Dr. Rio has taught social science subjects for 11 years. The Department has been actively involved in engaging barangays for enriching the teaching-learning process.

The Conference was organized by the United Board for Christian Higher Education in Asia. It served as a "a platform to connect

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Dr. Rio's paper was on "Local Governance: From University to Community" The Local Governance Mobile Training Team Experience. Chairman of the

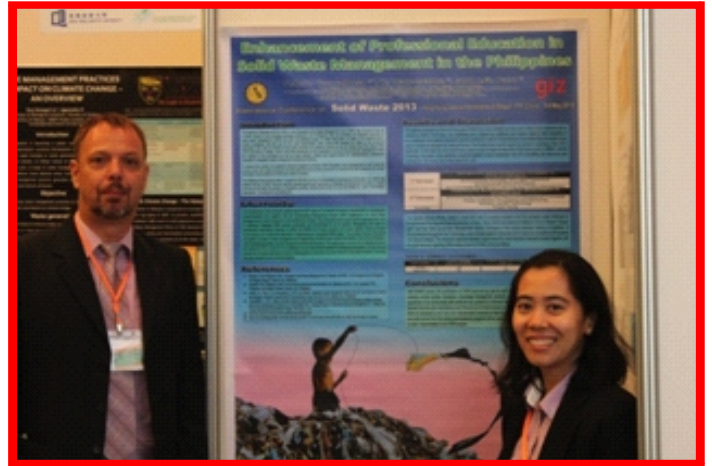
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SWM) through their paper, "Enhancement of Professional Education in SWM in the Philippines. Likewise, Engr. Klaus Hanuschke, Technical Adviser from GIZ for the said project presented another research paper "Evaluation of Residual Waste Reduction Effects through a Low-Cost, Gravity-Driven Waste Sorting Plant in San Carlos City, Philippines", one of the research areas for the ERMAT program.

Attendance to this international event could benefit the University in establishing new and continuing cooperation and networking with international academic institutions and stakeholders with regards to SWM. It could also improve the academic standards and credibility of professional education in SWM in the Philippines through incorporation of findings and learnings from the different researches/topics presented and discussed.




The participation was made possible through co-funding by Central Philippine University and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. ❖

Prof. Patricio lectures on *Moringa* in Indonesia



Lecture to the Indonesian Baptist women on *Moringa*

Prof. Hope G. Patricio of the College of Agriculture, Resources, and Environmental Sciences (CARES) was in Indonesia from June 28 until July 10, 2013 for series of lectures on *Moringa* Production, Processing, and Utilization. Her trip was made possible through an official invitation from Mr. Thomas Sihombing, Country Director of Goducate Indonesia. Goducate means Go and Educate, a non-stock, non-profit organization whose main platform is "Helping Needy Asians Help Themselves".

On July 3, she spoke to 250 officers and members of the Federation of Baptist Women in Indonesia, who came from Central and West Java (Malang, Semarang, Jepara, Madiun, Solo, Blitar, Kediri, and Yogyakarta). Half of the session was spent on demonstrating how to prepare  **To page 3**

Dr. Irving Rio... from page 1

knowledge from different academic disciplines and different social sectors, to learn from each others' best practices and to apply knowledge in different settings to achieve a better world". For more on the conference; see: <http://www.in.edu.hk/osl/conference2013/intropage.html>.

A proposal of Dr. Rio for a project on the Development of a Teaching Module on Indigenous People as a Local Peace-building Project has also

been recently approved for United Board funding. This service learning project will integrate with the Asian University Digital Resource Network of which CPU is a member. ❖

"The eyes of the Lord range throughout the earth to strengthen those whose hearts are fully committed to him."
2 Chronicles 16:9

CPU 's best research paper and poster in the 10th R & D week

Highlighting the year long program of activities of the University Research Center (URC) is the Research and Development (R&D) Week. Held on the 4th to the 8th of March 2013, the 10th R & D Week featured researches from the College of Medicine, Nursing, Engineering, Computer Studies, Education and the University High School Special Science Class IV.

In the 11th CPU Student Research Symposium held on the 7th of March at the Knowledge and Development Center, the top three Best Research Papers under the Medicine and Related Studies Category are: **“Knowledge and Attitude of Women on HPV Vaccination in Iloilo City”**, for third best paper. Researchers of the said study are *Dane Denise Daniel, Mikkaila Daquilanea, Dorris Dee Delos*



Best paper winners - College of Nursing

Santos, Therrie Grace Lorilla and Vanessa Viña. The second best paper is entitled, **“Hypoglycemic Activity of Talisay (*Terminalia catappa* Linn.) Against D50 Induced Hyperglycemic White Mice (*Mus musculus* Linn)”** by *Princess Joy P. Leysa, Kim Steve Peñaranda, Jeffrey Parcon, Jona Mae Degoma, Norbelle Monserate and Jun Carly Napulan* and the Best Research Paper is entitled, **“Anticancer Potential of Gumamela Extract, Lemongrass Extract and Pandan Extract Utilizing Brine Shrimp Assay”** by *Leyma Patricia D. Torreta, April Mae B. Capileño, Gibby R. Urbano and Anne Marie B. Cubero*.

For the Nursing Related Studies, the Best Research Paper is entitled, **“Knowledge About**

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Best paper winners - HS SSC IV

Prof. Patricio... from page 2

Moringa capsule, tea, and chicken tinola with *Moringa*.

From July 6 to 9, Prof. Patricio also lectured and led two focus group discussions (FGDs) in Bandung with the officers of Gereja Keluarga Kristen Indonesia and Gereja Kristen Java di Bandung, and with the Pastor and members of Gereja Bethel Indonesia in Jakarta. The nutritional and health benefits of *Moringa* were highlighted to the participants during the FGDs.

It was the second time for Prof. Patricio to travel to Indonesia and talk about *Moringa*. The first time was last April 2 to 12, 2013 when she went to Medan, North Sumatra and to Jepara, Central Java. Her travel, accommodation, and incidental expenses were sponsored by Goducate. ❖



Demonstration on cooking chicken tinola with *Moringa* and on preparation of *Moringa* capsule

CPU's best research paper... from page 3

Diabetes Mellitus II and Self-Care Management Practices of Diabetic Clients in Selected Barangays in Janiuay, Iloilo by *Kate Marie G. Cabalfin and Irene L. Cartagena*. Only three groups from the College of Nursing were able to present thus, only one Best Paper was awarded.

Six groups from the High School Special Science Class IV presented their research papers. The paper **"Biofertilizer (*Azospirillum*) and Vermicast for Organic Sweet Potato (*Ipomoea batatas*) Production"** by *Paolo Gabriel Nabor, Ida Anne Cacharel Fuentespina, Adelesis Canones and Mark Rigel Lorenzo* won the Best Paper and also the Best Poster. The second and third Best Paper and Poster are **"The Effect of Croton (*Codiaeum variegatum*) Leaf Extract Against Philippine Milk Termite (*Coptotermes gestroi*)"** by *Jaira Faith Sodusta, Herna Alpha Tiagan, Jericho Servano and Karl Tabuada* and **"Molluscicidal Effect of Caffeine**



Best paper winners - College of Education



Best paper winners - College of Computer Studies

(Trimethylxanthine) on Golden Apple Snails (*Pomacae canaliculata*) by *David Bryan Lao, John Dave Jabatan, Angeli Janne Bimbo, Zendy Cabrera and Melissa Buenafe*, respectively.

Under the Engineering and Related Studies, three papers were also awarded. The Best Paper is entitled, **"Design, Construction and Testing of a Microcontroller-Based Electrochemical Sensing Device for Soil Acidity and Nitrate"** by *Krezyl Anne Gabrillo, Patreik Errgy Pasaquian, Shyla Pleñago, Jacinette Reyes, April Rose Anggat and Meliza Sioting*. The second best paper is **"Cost Benefit Analysis of Different Voltage Correction Measures on the Electric Distribution System of Barangay Bagong Barrio Makato, Aklan"** by *Phol Jerry Calmerin, Ian Rey Campo, Carl Mitchel Deocades and Stesun Joe Marie Robles*. The third Best Paper is entitled, **"Design and Installation of a Motion-Activated Closed Circuit Television in the Engineering Building of Central Philippine University"** by *Arinne Mae Armada, Yen Mark Cabañas, Mark Joshua Escoderos, Conrado Gajetila, Patrick Odrada and Justin Christopher Tan*.

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Dusaran uploads inputs in Reg"l. training workshop

In line with the Department of Science and Technology's initiative of assessing the country's scientific strengths and weaknesses that will help identify priority areas for Research and Development (R&D), the National Academy of Science and Technology Philippines (NAST PHL), a collegiate body of the top scientists in the country, pooled 100 representatives from the region to avail of the Regional Training Workshops on Evaluation and Improvement of Performance of the Research Publication and IP Productivity of the DOST R&D Institutes.

Dr. Reynaldo N. Dusaran, Director of the University Research Center, was one of those who answered the call to attend the said Training Workshop held at DOST 7 Conference Hall, Lahug S & T Complex, Sudlon, Lahug, Cebu City on June 4-5, 2013. Inputs in the Training-Workshop were deemed useful and timely for the center's Research Committee Planning Workshop last July 19, 2013. ❖

"Let love and faithfulness never leave you; bind them around your neck, write them on the tablet of your heart. Then you will win favor and a good name in the sight of God and man."

Proverbs 3:3-4

URC extends technical assistance to BSN, CAS, CBA and Educ. student researchers

A total of 90 student researchers from the College of Arts and Sciences (17 students), Business and Accountancy taking up Advertising (15 students), College of Education (24 students), and College of Nursing (34 students) availed of the Seminar-Workshop on Data Processing, Analysis and Interpretation sponsored by the University Research Center (URC). The first, in a series of two seminars was scheduled last December 8, 2012 and the second was on the 15th of December.

This yearly endeavour of the University Research Center seeks to equip the student researchers with knowledge and skills in Data Processing, Analysis and Interpretation. The first group of student participants were under the advisorship of Prof. Ma. Lindy B. Saquibal, Prof. Carolyn L. Yoro and Prof. Lucell A. Larawan while the second group were advisees of Prof. Janet P. Jaco, Prof. Sharlene G. Gotico, Prof. Lucell A. Larawan and Prof. Leny Rose P. Mucho. ❖

CPU's best research paper... from page 4

For the Information Technology and Related Studies Category, two Best Papers were awarded since only four groups were able to present their research paper. These research papers are **“Panay Island Properties Management System”** by *Juliet N. Arandela, Barbara D. Bacanto, Sicilience P. Derecho, Rean A. Famoso and Elyses J. Sodusta* for best paper; and **“One-Stop-Shop Business Permit and Licensing System for the Municipality of Cabatuan, Iloilo”** by *Raymund Perucho, April Rose Abogadil, Precious Matter Grace Camare, Jhon Abonales, and Jonathan Bacabac* as second best paper.

Two Best Papers were also awarded to the Education and Related Studies Category. The paper **“The Extent of Participation in Extra and Co-curricular Activities: Its Influence to the Academic Performance of Grade V and VI Pupils at Pavia Central Elementary School”** by *Peter Jorge Dofeliz, Genny Lee Plaza, Charlene Claire Gare, Analy Gallego and Mary Ann Leigh Besidellas* was adjudged the best paper while the second best paper is awarded to the study **“The Level of Practice on Values Among Elementary School Pupils of Luis Mirasol Memorial School”** by *Christian Paul Lasconia, Ma. Elna Penit, Eulaine Faith Zamora, Charlie Robles and Leira Corazon Lauresta*.



Faculty presenter's - afternoon session

Albert Jan Matthew A. Java, President, CPU Republic President for School Year 2012-2013 opened the R & D week with his welcome remarks and inspirational message followed by an overview and order of presentation by Dr. Reynaldo N. Dusan, Director of the University Research Center.

Among the activities of the R&D week is the 14th CPU Faculty Research Symposium on the last day and a week long display of the research posters. Faculty members who presented their Health Research and Satisfaction Survey were Miss Julie Ann D. Lagulao, Miss Rita E. Penaso and Miss Florabel Suarez. The afternoon session was a continuation of the paper presentation on Social Sciences, Agriculture and Engineering Studies by Rev. Dr. Jerson B. Narciso, Dr. Irving Domingo L. Rio, Prof. Edwin I. Lariza, Prof. Mary Earl Daryl A. Grio and Prof. Ma. Victoria C. Seredrica. The Closing and Awarding Ceremony (for Best Paper and Best Poster for the students' category) followed after the afternoon presentations of the faculty.

“Opportunity is limitless for those who rise with the challenge,” bits of wisdom from Dr. Florence P. Bogacia, Vice President for Finance and Enterprises, in her inspirational message during the closing ceremony. ❖



Faculty presenter's - morning session

Prof. Patricio serves as 2013 pre-in-house Evaluator for BPI-LGNCRDC



Prof. Hope G. Patricio (center) with two other evaluators

Prof. Hope G. Patricio, faculty and student research coordinator of the College of Agriculture, Resources, and Environmental Sciences (CARES),

served for the third time as evaluator for the Bureau of Plant Industry, La Granja National Crop Research and Development Center (BPI-LGNCRDC) pre-in-house review last June 18, 2013 in La Granja, La Carlota City.

Together with Dr. Elmer Enicola, a researcher from the Institute of Plant Breeding-University of the Philippines at Los Baños (IPB-UPLB) and Dr. Josephine Tolentino, supervising agriculturist from the BPI Central Office, they reviewed and evaluated 21 papers. These included three on-going projects on plant genetic resources, eight crop (soybean, mungbean, and peanut) improvement studies, three National Cooperative Testing projects (field legumes, corn, and upland rice), and seven special projects.

The pre-in-house review is an annual activity at BPI-LGNCRDC in preparation for the national in-house-review in Manila. ❖

URC sponsors Seminar-Workshop on Research Proposal Preparation

The University Research Center (URC) sponsored Seminar-Workshop on Research Proposal Preparation. This was attended by 22 faculty and staff

members of the University from different colleges and departments. This was conducted on August 15, 2013, from 8:00AM 5:00PM at the Room 1, 4th Floor, Henry Luce III Library, Central Philippine University.

Research Agenda and Proposal Format, Problem Identification, Objectives and Hypotheses and



Research Methods were the topics discussed with workshops in



between topics. This program of the URC seeks to encourage the faculty and staff to respond to the call for more research proposals. ❖

KNOWLEDGE, ATTITUDE AND COMPLIANCE TO PAP SMEAR AMONG FEMALE FACULTY MEMBERS OF CENTRAL PHILIPPINE UNIVERSITY, ILOILO CITY

By Rita E. Penaso

ABSTRACT

This study aimed to determine the level of knowledge about Pap smear, attitude towards Pap smear and compliance with Pap smear among female faculty members of Central Philippine University, Iloilo City. This is a descriptive-relational study that used a one-shot survey design. The target population was female faculty members ages forty years old. To gather the needed data for the investigation, a researcher-made self-administered questionnaire was used based on questions adopted from the following studies. "Attitudes Towards Cervical Cancer Screening: A Study of Beliefs among Women in Mexico" (Leyva et. Al, 2006); "Knowledge, Attitude and Compliance to Pap smear among WRA Women of Selected Barangays in Iloilo City by Manila, J. (2000). Frequency distribution and means were used for descriptive analysis. To determine the extent of relationship between variables, the Pearson's r, partial Gamma and Chi-square (χ^2) test were used. The majority of the respondents are married, with almost fifty percent of them between 50-59 years old. More than 57 percent of

them had three children and below. Almost fifty percent of the respondents had used or practiced the temporary method of family planning. A little more than fifty percent of the respondents had "average" level of knowledge about Pap smear. Only a small percentage of the respondents had "low" level of knowledge about Pap smear. Almost all of the respondents had positive attitude towards Pap smear. However, not all respondents have complied with Pap smear. Respondents' age, civil status and number of children were found to have significant relationship with their knowledge about Pap smear. Civil status and number of children have significant relationship with the respondents' attitude towards Pap smear and their compliance with Pap smear. There is a significant relationship between the respondents' knowledge about Pap smear and respondents' compliance to Pap smear and their attitude towards Pap smear. Only knowledge about Pap smear had no significant relationship with compliance to Pap smear. ❖

LEARNINGS IN MANAGING AN OUTREACH PROJECT: The Case of CPU Katin-aran Center

By Edwin I. Lariza and DZ Patriarca-Lariza

ABSTRACT

This study was conducted to describe the growth and development of Katin-aran Center and its contribution to the community, as well as to the University. It used the exploratory and descriptive design. A focus group discussion with pioneers and key players validated both primary and secondary data. Katin-aran Center emerged as a response to the needs of the Department of Social Work for more field placement for practicum students. Soon it grew with established development concepts, framework and effective methods in organizing communities. Because of its track record, the Center earned recognition and respect locally, nationally, and internationally. It has reached its peak when it became a separate foundation implementing multi-million empowerment projects. The impacts of the programs and services to personal lives of the Katin-aran members have been translated into community

involvement in various forms and services. The following administrative factors are responsible for the development of the Center: institutional support provided by the University; participatory and integrated/ holistic development approach; and the charismatic qualities and management style of the pioneer director combined with highly committed staff. However, the same factors that sustained the operation of the Katin-aran Center created some organizational problems and issues, namely: ill defined structure, lack of a more definite framework for strategies, learning disability, and role confusion. Despite the problems it encountered and whatever negative experiences it had, there is no question that the Katin-aran Center has given us learnings on how to manage outreach projects. ❖

RESEARCH COLLABORATION BETWEEN THE CIVIL ENGINEERING DEPARTMENT OF DE LA SALLE UNIVERSITY-MANILA AND CENTRAL PHILIPPINE UNIVERSITY-ILOILO CITY

By Mary Earl Daryl A. Grio and Alexis M. Fillone

ABSTRACT

This paper discusses the research collaboration between De la Salle University (DLSU) BSCE 4 students majoring in Transportation Engineering in Manila and Central Philippine University (CPU) BSCE 4 students in Iloilo. Three undergraduate thesis groups from DLSU-Manila and four groups from CPU-Iloilo City doing their project study collaborated with the guidance of their thesis advisers from both universities. All groups from DLSU-Manila successfully finished and defended their undergraduate thesis while only two groups from CPU continued with their research titles.

However, all data gathered were utilized in the finished researches. Upon completion of the researches, a survey using a questionnaire and interview with the students of both universities were conducted to get their insights and reactions. Recommendations are presented to improve and strengthen this activity such that it could be replicated by other interested universities. Several interesting or remarkable findings were identified in this innovative research collaboration. ❖

TUBIGANAY: CONFLICT RESOLUTION AMONGST INDIGENOUS CULTURAL COMMUNITIES IN CENTRAL PANAY MOUNTAINS

By Irving Domingo L. Rio and Rodel C. Palomar

ABSTRACT

Conflict resolution is vital in the maintenance of societal order because without it chaos will prevail and the society's existence is in peril. The indigenous cultural communities of Central Panay Mountains, collectively called the Panay *Bukidnon* people were able to preserve their old customs and traditions, including their indigenous conflict resolution process. The Panay *Bukidnon* conflict resolution process continues to operate and is the preferred method to settle petty or serious conflicts in Central Panay Mountains despite the existence of a modern state. This research paper "Tubiganay: Conflict Resolution Amongst Indigenous Cultural Communities in Central Panay Mountains" aims to provide explanation to the inability of the state to enforce its norms on law and order and conflict resolution and provide valuable information on the contributing factors which led to the persistence of indigenous conflict resolution process. Moreover, this research intends to contribute to the body of knowledge regarding the culture, society, and history of the Philippines as well as political dynamics among indigenous cultural communities in Panay. This research will provide the reader a greater understanding and appreciation of the uniqueness, variety, and richness of the culture of Panay in particular and the Philippines in general. Likewise this paper will help preserve the cultural heritage of Panay before it becomes eroded by the forces of globalization and modernization. The objectives of this paper were achieved through qualitative research method. In-depth interviews of key informants and ordinary people were employed to acquire relevant data. Data from interviews were supplemented, clarified and validated by focus group discussion involving village elders, leaders and other members of the community. The researchers traversed the mountains and rivers from Calinog, Iloilo to Libacao, Aklan and stayed in the community

for four days for immersion to obtain the data needed. The *magurang* system is central in the conflict resolution process among the indigenous communities involved in the study. The *magurang* as an institution yields unchallenged "judicial authority" in resolving practically all forms of conflicts. Conflict resolution through *tubiganay* wherein combatants settle their disputes in a duel using bladed weapons and tying ropes around their waists to ensure that no one can escape is no longer practiced in the area of study. However, the researchers found out that private justice through vengeance by using other forms of killing is still practiced by the people of Central Panay Mountains which may lead to a large scale tribal war. The realization of private justice involves the practices of *ugkhat*, *kantang*, and *durog*. The rationale of *tubiganay* is self-preservation, defense of honor and domain of the family, clan, and tribe and maintaining social order. It serves as an effective *détente* to further violence. In the absence of an operating state's judicial system in the area, "tubiganay" provides the mechanism of settling disputes before it escalates into a much higher level of conflict that may threaten the survival and well-being of the community at large. Local government officials' knowledge of the existence of *tubiganay* is very limited since conflicts involving indigenous people are rarely brought to their attention. The common causes of *tubiganay* are cheating, exaggerated boast, vengeance, deep-seated retribution, non-payment of one's obligation, banditry, and violation of domain which includes failure to seek hunting permission and deceitful declaration of hunting share. Social activities such as *domog*, *sampalayo*, and even *kaingin* preparation are considered combative training because they hone the skills and abilities of people to fight. ❖

THE EFFECT OF THE RESIDUE OF THE DIFFERENT FERTILIZERS ON THE GROWTH AND YIELD OF POTTED PECHAY AND LEAF LETTUCE

By Ma. Victoria C. Seredrica

ABSTRACT

Leaf counts were not significantly different except at 4 WAT. The significantly most number of leaves were found on plants applied with fertilizers except those applied with madre de cacao and without fertilizer. Plant height was not also influenced by the fertilizers used. Lettuce gave significantly highest yield of 1,636 kg/ha when fertilized with acacia leaves while the control plants had the lowest yield. However, yields in all treatments resulted in a negative ROI because of the high expenditure in sourcing manures and preparation of the potting medium. In cabbage, the number of leaves and plant height of plants applied with fertilizers were significantly more than the unfertilized.

Days to heading, however, varied significantly but heads were harvested at 13 WAT. Data further showed that plants fertilized with acacia and ipil-ipil significantly gave the widest head diameter and highest yield, however, this resulted in a negative income and negative ROI along with those plants fertilized with madre de cacao. The highest income of P1,243,656 and ROI of 37.73% were realized in plants fertilized with inorganic fertilizer which were higher than those obtained from plants with IMO 5. Plants in the control pots started to form heads but did not fully develop. ❖

CHRISTIANITY AND ISLAM IN THE SEARCH FOR PEACE IN SOUTHERN PHILIPPINES

By Jerson B. Narciso

ABSTRACT

This study attempts 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 study seeks to identify common values and principles of peace and justice inherent to Christianity and Islam which 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 could be anchored. Analysis of the socio-economic, political, religious, and cultural context reigning in Mindanao as well as the role that Christianity and Islam have played in the peace process is made from the perspective of a Christian and Islamic theology of liberation. To achieve this purpose, the study employs three methodological approaches namely: socio-analytical approach; hermeneutical approach and; practical approach, findings of which have provided a much deeper and broader understanding of the context and the roots and causes of the Mindanao conflict, and the milieu in which

faith and praxis and the whole peace process itself must operate. The study employs a dialogical model of interpretation, which takes into account specific themes and texts which are central to the teachings of the Bible and the Qu'ran and 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 has identified at least five areas of theological and political convergence between Christianity and Islam which can be harnessed toward the formulation and establishment of a peace project in Mindanao that is historically and contextually relevant. As shown in the study, the roots and causes of conflict in Mindanao is rather complex than simple. Thus, it requires 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 proceeds to suggest three political programs for lasting and genuine peace in Mindanao, namely: Economic; Cultural and; Political restructuring and transformation. ❖

BARRIERS AND FACILITATORS TO HIV TESTING AMONG MEN HAVING SEX WITH MEN IN ILOILO CITY

By Julie Ann D. Lagulao

Paper presented during the 10th R & D Week, 14th Faculty Research Symposium

INTRODUCTION

Background and Rationale of the Study

The Joint United Nations on HIV and AIDS (UNAIDS) report on the global AIDS epidemic reported that there are about 33.3 million people around the world who are infected with HIV since 1981 (UNAIDS, 2010). Human immunodeficiency virus or HIV leads to Acquired Immune Deficiency Syndrome (AIDS), a condition in which the body's immune system is attacked, weakened and disabled by the virus, ultimately leading to death. It is considered one of the most destructive diseases in history.

Globally, the Philippines is one of the only seven countries whose prevalence rate increased by 25 percent while others have either stable or decreasing rate (UNAIDS, 2010). From 1984 to December 2011, there were 8,364 registered HIV Ab sero-positive cases (DOH & NEC, December 2011). Philippine National AIDS Council (PNAC, 2011) is commencing with one reported case for every five hours, or five reported cases per day. These data show the alarming increase of infection in the country. In December 2011, DOH and NEC (2011) reported that (94 percent) of HIV cases were males and the predominant type of transmission was by having sexual intercourse with same sex (86 percent). Previous reports by PNAC (2009) showed that only 29 percent of the MSM were reached by HIV related programs and services.

HIV Counseling and Testing (HCT) among MSM is the key intervention for HIV and AIDS prevention (WHO, 2011). RA 8504, which is the Philippine's law concerning HIV supports voluntary HIV Counseling and Testing (VCT). There is an HIV and AIDS Core Team (HACT) facility located in West Visayas Medical Center, Mandurriao, Iloilo City, which offers free VCT services. However not all, especially the MSM, have themselves tested for HIV even though they engage in high risk behavior. The Integrated HIV Behavioral & Serologic Surveillance (IHBSS) for 2009 reported that only seven percent of the MSM received HIV test in the last twelve months and who knew their result.

At present, there is limited study in the province on the MSM's perspective on what propels them to be tested or what hinders them. Such study on this subject is needed. According to the report of South East Asian Regional Office for WHO (2007), counselor's unawareness of the psychosocial issues affecting MSM and lack of knowledge about their sexual activities about HIV for the group have been barriers to HIV testing access among MSM. As part of addressing the issue and knowledge gap, it is appropriate to conduct a qualitative study that could provide baseline knowledge about the MSM's perspective on accessing HIV testing, their sexual behavior and risk assessment. Through understanding the perspectives of MSM about HIV testing, health care providers can promote HCT and create more culture specific and effective HIV-related programs accordingly.

Objectives

This research aimed to describe, from the perspectives of identified volunteer samples of MSM in Iloilo City, the facilitators and barriers to

HIV testing.

Specifically, this study aimed to:

1. describe the general characteristics of the volunteer sample of MSM such as their age, employment status, religion, academic level, ethnicity, type of dwelling, marital status, number of children and siblings;
2. describe the sexual characteristics of the participants such as their sexual orientation, sexual role, frequency, use of condoms and sexual debut;
3. determine participant's perceived threat in relation to HIV testing;
4. determine the participant's attitude towards HIV testing;
5. determine the social influences of the participants in relation to HIV testing;
6. determine the participant's sense of self efficacy in relation to HIV testing;
7. determine the participant's identified prerequisites to HIV testing;
8. describe the intention of participants who submitted to HIV testing as well as those who did not;
9. describe the experience of participants who submitted to HIV testing;
10. determine other emerging themes in relation to barriers and facilitators to HIV testing.

Research Design

This study sought to understand the facilitators and barriers to HIV testing from the perspective of one of the most high risk populations in the country- the MSM. To effectively achieve this, the study used qualitative research approach which emphasizes the importance of obtaining a culturally specific and contextually rich data about the values, opinions, behaviors, and social contexts of the researched population (Guest, Mack, MacQueen, Namey, & Woodsong, 2005). Under the qualitative approach, a descriptive method through a case study was conducted. Case studies are in-depth investigations of a single entity or a small number of entities with the attempt to analyze and understand issues that are important to the history, development, or circumstances of the subject under study (Beck & Polit, 2004). Through a case study, the identified MSM volunteers described in their own words the dynamics of what, why, and how they came up with the decision to submit or not to submit to HIV testing as well as other factors which influenced their decision. The advantage of using a qualitative research approach for this study was the permission it gave to the researcher to adapt the questions and the flow of data collection tools in reaction to the research participant's responses.

Recruitment of Participants

The guiding principle in choosing participants for a qualitative study was to recruit those who would be

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information-rich data source that would eventually lead to an in-depth discovery of the issue being investigated.

The target populations for this study were MSM residing in Iloilo City. It was presented during the research proposal that the researcher would get MSM representatives according to the classification of UNAIDS (as mentioned in the related literature of this study). The UNAIDS (2006) classified the MSM population into four which are the "parlorista bakla", "straight-acting MSM", "lalake", and "call boys". However, it was found out during the recruitment process for participants that "parlorista bakla", "straight-acting MSM" and "lalaki" have overlapping definitions when placed in the present generation of MSM and the terms are now rarely used to define sexual orientation. The "call boys" or the MSM who engage in transactional sex would still consider themselves as straight or bisexual depending on how they identify their own sexual orientation. Due to this unexpected circumstance, it was decided by the researcher to select representatives of MSM according to the classification used by NEC during the IHBSS surveillance for 2009. Hence the MSM participants were classified as heterosexual, bisexual and homosexual.

Given the difficulty of accessing MSM, fifteen volunteer participants were chosen purposively to ideally meet the objectives of the study. In snowball method, the participants or informants were contacted by the researcher, who in turn used their social networks to refer potential participants who can contribute to the study. This method was effective to recruit a "hidden" population of MSM. The selected volunteer samples of MSM were carefully chosen to fit the inclusion criteria mentioned in the scope and limitation section of this study. It was always explained to the volunteer participants that they were recruited for a face to face interview.

The researcher made a letter addressed to the physician of the Social Hygiene Clinic (SHC) and head of Western Visayas Medical Center. The researcher coordinated formally with both institutions and requested to interview some of their clients and personnel. An SHC personnel helped in during recruitment of participants. Recruitment for participants was during weekends of October to November. There were ten MSM who were interviewed in coordination with SHC. The nurses of the HACT office were able to encourage two HIV positive MSM to participate in the study. The other four were personal acquaintances of the researcher and interviewer.

Ethical Considerations

The research was reviewed for ethical consideration by selected faculty members of Central Philippine University School of Graduate Studies during the pre-oral defense. It was further submitted for ethical consideration to the West Visayas Medical Center's ethics committee before the researcher can get participants from the HACT office. The study was approved by both institutions, assured that the right to confidentiality of the research participants will be protected.

Data Collection

Instrumentation. An interview guide coupled with a short demographic questionnaire were chosen as suitable data collection tools to meet the objectives of the study. The demographic questionnaire was a set of fourteen close-ended questions that can be answered by the participants themselves or with assistance. The purpose of the said questionnaire was to elicit important data for the research participant's profile. Consent for completion of the

demographic questionnaire was included in the informed consent form. The research participants were informed that they were not obligated to answer the questionnaire. There were two types of interview guides, one for those who submitted for HIV testing and another one for those who did not. Interview guide and demographic questionnaire forms were paired. An envelope for each form was prepared according to their category and labeled with what type of sexual orientation the MSM participant belongs to. This was to make sure that there is an envelope and representative for different types of MSM which is further classified as to whether one had HIV testing or not.

Interviewer's training. A male interviewer was recruited and trained for doing the interview for the purpose of creating a male-friendly environment in which the participants would be more comfortable to answer during the interview. Valuable information could be lost if the participants were to feel uncomfortable answering questions related to sexual health when posed by a female interviewer which could lead to a threat in validity (Beck & Polit, 2004).

The researcher acknowledges the importance of upholding the morals and values of research. Hence, the researcher and the chosen male interviewer underwent training as part of compliance to the ethical consideration of the study. An interviewer's training was conducted by the thesis adviser prior to data collection. The interviewer's training was a precaution not to compromise the privacy of the participants and to conduct the study in a responsible manner. The interviewer's training included the general background of MSM, the study background and objectives of the study, interviewing and focus group discussion moderation techniques, understanding the study interview guide, informed consent and ethical guidelines. The practical aspects of the training involved role play in order to gain experience before doing the actual interview. The interview guide was evaluated and necessary changes were made in the process.

Informed consent. All participants were provided with comprehensive explanations of the study procedures and an information sheet detailing the objectives, sampling procedures and ethical considerations of the study. The participants were guided towards the consenting process. They were reminded that they were not obligated to participate and could decline to answer any questions which would make them feel uncomfortable. Furthermore, they were reminded that all the information shared during the interview would remain confidential and anonymous. They were asked to sign the letter of consent to confirm their participation in the interview as well as to having the interviews recorded. The participants were given a copy of the printed informed consent of the study. They were also asked to complete the demographic questionnaire before the interview started.

Data collection. This qualitative research involved triangulation or the use of different methods which forms the major data collection strategies. These strategies are discussed below.

Face to face interview. The interviews were done in a casual and conversational manner rather than a formal one. There were introductory questions prepared for the interviewer to ask in order to make the participant more comfortable. With the aid of the interview guide, the interviewer was flexible enough to adapt the questions among the research participants and have a simultaneous gathering of information pertinent to the study objectives.

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The questions aimed to gather information on the participant's demographics, sexual behavior, personal risk assessment and health seeking behavior towards HIV testing. The face to face interviews were conducted by a trained male interviewer and researcher. The interview guide aimed to obtain information on the following areas, namely: **a)** Demographic information; **b)** Sexual behavior; **c)** Personal risk assessment for HIV; and **d)** Health Seeking Behavior towards HIV testing (Submission or non-submission to HIV Testing).

Aside from the recruited interviewer, the primary researcher took the role of a field note taker if permitted by the research participant. After each interview, the volunteer MSM participants received a monetary reimbursement to cover travel expenses.

Non-participant observation. Non-participant, or direct, observation is where data are collected by observing behavior without interacting with the participants. In this study, the researcher was privileged to observe three instances on how VCT was conducted in HACT facility of WVMC. But one of the more in-depth observations made was about one of the participants of the study. The researcher was allowed to observe how the process was done and be with the participant until he received his result.

Direct examination of documents. The researcher was given documents relevant to the study by some participants and personnel of HACT and SHC. These were flyers about HIV and AIDS given during lectures and mobile testing, counseling and informed consent forms and peer educator's form from HACT and SHC. There were websites that some participants mentioned. The researcher seized the opportunity to examine. These shed more light to the sexual and health seeking behavior of the MSM population.

Comparing and verifying viewpoints and experiences against another with similar experience. This process of triangulation is described by Shenton (2004) as verifying the individual viewpoints and experiences against others to ultimately create a rich picture of the attitudes, needs or behavior under scrutiny based on the contribution of a range of people. The researcher was able to interview another HIV positive client of HACT and his experience to submission to HIV testing and factors influencing his sexual behavior were compared with the results and the general theoretical concepts constructed from the study.

Management of Data from Fieldnotes

The data from each interview were managed appropriately to facilitate subsequent analysis. The following tasks were involved for data management:

Field editing. Following the interview, the field notes were expanded into rich descriptions of what transpired. This involved transforming raw notes into a narrative. This was done as soon as each interview was finished to have a greater chance to remember important things. The expanded notes were typed as a computer file. At the end of each interview, the Interviewer and the researcher (note taker) reviewed the notes to make sure that they made sense in relation to the study questions. Any comments or observations made after every interview were added or clarified.

De-briefing. At the end of each interview, the researcher covered problems that were encountered in administering the guide as well as new themes or findings from the recent interviews. The problems encountered during the early part of data collection were classifying the

MSM according to the suggested categories of UNAIDS and there were participants who had difficulty answering the demographic questionnaire because they could not read and write well. It was therefore decided by the researcher not to follow the UNAIDS suggested categories of MSM and to answer the demographic questionnaire with assistance for those who had difficulty doing so. As the interview progressed, it appeared that pornographic watch was an emerging practice cited by the participants. It was then included as one of the questions to ask in gathering data for sexual characteristics among the other participants.

Transcribing. All face to face interviews were recorded using a digital voice recorder after the participants signed the informed consent. The voice files were transferred and stored in a password-protected computer after each interview. The researcher transcribed each of the interviews from oral speech to written text using a Microsoft Word software program. The voice recorded interviews were transcribed verbatim, encoded as a computer file and then printed. Each printed transcription included an archival number (based on the file number in the digital recorder), date, venue and duration of interview. The transcripts (transcribed material) were reconciled with field notes. The researcher then made matrices in the computer for data analysis, where emerging themes, keywords, facilitators and barriers to HIV testing were organized. A summary of important data per participant was created in preparation for inductive analysis.

Data storage. After transcribing all interviews and after checking the quality of the transcripts, the data files were copied to a universal serial bus (USB) as data storage device. The USB together with the informed consent forms and all the notes and documentation pertaining to the study were secured. All research related data were kept in one place in order to efficiently manage them. Each interview data per participant has an envelope. The contents of the envelope included the printed transcript, interview guide, field notes, informed consent and other research forms. All documents related to the data collection of the study were kept privately for confidentiality reasons.

Data Processing and Analysis

Thematic coding formed the basis for analysis of this research study. This refers to any method of categorizing segments of qualitative data into meaningful themes. Content analysis was done as a rigorous form of thematic coding. The goal was to create a category scheme where the researcher can sort, organize and code the data. Marshall and Rossman (2011) in their book 'Designing Qualitative Research' suggested that there are seven common analytic procedures for qualitative analysis. These seven stages are presented below as applied by the researcher.

First, was the organization of data. The researcher ensured that all field data (including notes, comments, and voice recorded interview files) were recovered and transcribed.

The transcripts and field notes were printed out and carefully examined. The transcribed interviews were placed in envelopes and classified as to whether the participant submitted to testing or not as well as their sexual orientation. The documents inside the envelopes were the field notes, transcripts and summary of findings for each participant. Other field notes included that of participant observation and documents from SHC and HACT.

Second, was the immersion of data. The researcher read the

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data several times with the goal of constructing a category system. Important passages were marked with different colored highlighting pens. The researcher highlighted the barriers red, the facilitators green, the general and sexual characteristics orange and yellow. Side notes were done on each page of the transcripts and field notes for important statements and data that the researcher found relevant to the study but still did not belong to any category.

Third, the researcher generated categories and themes out of the data. Data sheet analysis or matrices were created out of these. A back up copy of the same document was secured in the Microsoft Word software program. The identified categories and themes were: the participant's data for general characteristics, sexual characteristics, awareness about HIV and AIDS, risk perception, facilitators and barriers to HIV testing, HIV testing experience to those who submitted themselves to HIV testing, preference of HIV testing facility (private or public).

Fourth, the data were coded. To facilitate data organization, the researcher created a data sheet for analysis using the Microsoft Excel computer program. A code was assigned to each participant. The data sheets had codes and sub-codes. The data from transcripts and field notes were categorized and typed under each code and sub-code. In doing this, the participant's responses were placed in logical manner. Each had a data sheet. An overall data sheet was made to make analysis of data more constructive and objective. However, there were emerging themes and sub-themes that were identified in the study. The codes and themes were modified to meet the objectives. Each code and sub-code were labeled by giving appropriate headings.

Fifth, the researcher interpreted the data. As categories, themes and codes were developed, the researcher began the process of interpretation using Marshall and Rossman (2011) seven phases for analytical procedures. The most useful data segments that illuminated the questions being explored in the study which were facilitators and barriers to submission/ non-submission of the participants to HIV testing were selected. The researcher had to make distinction between what the data said (description) and what the data meant (researcher's interpretation) though an inductive method. In this study, the theory of planned behavior and health belief model played a critical role in defining and validating the research problem and objectives.

Sixth, was searching for alternative understanding to avoid biases in interpreting the data. Case summaries were written and compared to the viability of themes and explanations, checking them against the collected data. Matrices, hierarchies, diagrams and maps were created to construct a credible explanation that provides significant knowledge from the study.

Seventh, the researcher wrote the report using the APA format for academic documents.

Strategies for establishing trustworthiness of the study. Trustworthiness is the element of validity and reliability of the research study. To establish this, multiple methods were used for triangulation such as face to face interviews, direct observation, direct examination of documents and verifying of experience against another MSM. The analyzed data were validated through member checking and peer debriefing sessions. Member check was done by asking the participants to review the dialogues to which they participated. The researcher utilized three strategies for member checking since it was difficult to meet the other participants again. The first strategy was by meeting

some participants one by one. The second strategy was by gathering some of them in SHC. The third one was through sending emails, especially among the young professionals since they are busy at work. However, there were data which the researcher failed to validate. There were two callboy participants who were involved in criminal cases and they were in hiding during validation period. In fact, three of the participants were already sent to prison at the end of the data collection period. For others, they stopped involving in commercial sex work. Callboys and commercial sex workers often come and go, depending whether they already have enough money or not. Hence, it was already difficult to look for them if they were not in their hotspot. Peer debriefing was done by meeting people with expertise and experience in dealing with MSM and HIV testing and counseling. Peer debriefing was done with the STI Coordinator of DOH, SHC physician, SHC nurse, HACT leader and nurses.

Summary of Findings

At the time of interview, majority (53.4 percent) were 23 years old and below; 46 percent of the participants were employed, 40 percent were unemployed, and only 13.3 percent were college students; 93.3 percent of the participants were Roman Catholic; 33.3 percent finished high school and never entered college. All came from Iloilo (93.3 Percent) and only one (6.7 percent) from Mindanao. The majority (73.3 percent) of the participants have privately owned dwelling; 66.7 percent of the participants were single and did not have steady relationships. Five (33.3 percent) of the participants had six to ten siblings, another 5 (33.3 percent) had three to five siblings and the last 5 (33.3 percent) of the participants had one to two siblings. Among the participants, 20 percent had children.

There were five (33.3 percent) homosexuals, four (26.7 percent) bisexuals and six (40 percent) heterosexual participants in the study. High percentage (40 percent) of the participants were top; 60 percent participants had sex with men from none to once a week; 46.7 percent had inconsistent use of condom to all their sexual partners, which included their regular sexual partners. Forty percent of the participants had their sexual debut when they were 17 to 21 years old and 80 percent of them were in their minor age. Majority (66.7 percent) of the sexual debut experience were for the sake of fun and satisfying one's curiosity about how it feels to have a sexual experience with the same sex.

Perceived threat (perceived severity and susceptibility to the disease) among the participants was influenced by their belief on how their risk reduction practices protect them, manifestation of signs and symptoms and interest about HIV and their status. Those who had no perceived threat mentioned risk reduction practices such as using condoms frequently (40 percent), having unprotected sex only with people whom they were confident are safe (26.67 percent), not swallowing any fluid that comes out of the partner's genitals (20 percent), not engaging in sex often (6.67 percent) and physically examining the sexual partner before engaging in sexual activities (13.3 percent). Those who had perceived threat because of unprotected sex (33.33 percent) and having signs and symptoms (13.33 percent).

The attitude towards HIV testing among the participants was influenced by how they viewed it as favorable or not. It was found out in this study that the participants viewed HIV testing as favorable because it was a way to know one's HIV status in order to have early access to treatment if one is HIV

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positive (60 percent), to avoid infecting others (13.3 percent), it was a way to comply with a requirement like in blood donation and in certain jobs (20 percent) and being tested for HIV makes one a role model for others to follow (20 percent). Responses that showed unfavorable attitude were thinking that it was not a necessary thing or matter to do (26.67 percent) and their level of trust to the HIV testing personnel and facility (13.33 percent) and having signs and symptoms (13.33 percent).

The social factors that influenced the intent of the MSM participants to submit to HIV testing were encouragement, sympathy and approval from others (40 percent), peer education and recruitment (20 percent), referrals from healthcare providers; and participation in government programs (53.33 percent). It was also found out that "huya" or feeling of shame (40 percent), the fear of discrimination and being judged by others negatively influenced the participant's intent to take the test. It was found out in this study that the participant's level of fear (e.g fear of needles [20 percent], fear of positive result [26.67 percent]), level of confidence of a negative test result and willingness to take the risk (40 percent) all influenced the participant's intent to submit to HIV testing. It was found out that nine (64.29 percent) of the participants intended to take the test without any constraints and hesitations, three (21.43 percent) intended to take the test but with certain constraints and hesitations, and two (14.29 percent) refused to be the tested.

There were pre-requisites to testing that were identified by the participants. These were financial resources (20 percent), accessibility of HIV testing facility (13.33 percent), availability of time and opportunity to take the test (26.67 percent), and lack of awareness where to take the test (53.33 percent). It was found out that 60 percent of the participants submitted to HIV testing in a public health facility. Among those who submitted to HIV testing, 50 percent underwent pre and post counseling. The 20 percent were given pre-counseling but the clients never returned to get their result. Document from SHC in 2011 also showed that there were 43.33 percent MSM who did not return to get their HIV test result.

Among the fifteen MSM participants in this study, 30 percent were not given any counseling and were all tested in a private testing facility. There were other issues that emerged in this study. First, there was one participant (6.67 percent) who avoided being tested in order not to put down oneself and there were others (53.33 percent) who mentioned about moral-related issues along with being condemned and discriminated. Second, there were high risk behaviors that the participants mentioned such as engaging in sex in exchange of money (26.67 percent), having unprotected sex only for fun/pleasure (66.67 percent) and meeting strangers for sexual pleasure through social networking/mobile texting (40 percent), cinema (20 percent) or in malls (26.67 percent). Third, 53.3 percent of the participants identified bars and places for night out in the city as a hotspot; there were participants (46.67 percent) who never told their families and friends about their sexual orientation; and majority (53.3 percent) of the participants mentioned exposure to pornographic materials.

Conclusion

Inferred from related studies and from the findings of this study, were made:

Majority of the participants were 23 years old and below are Roman Catholics, Ilonggos and had their own private dwelling in Iloilo City. Majority of them were single, had sex with men from none to once a week and had their sexual debut for the sake of fun and pleasure. There were four identified determinants that influenced the participant's

intention to take the test. These were attitude towards HIV testing, sense of self efficacy to take the test, social and moral influences.

Although the participants had favorable intention to submit to testing, it did not mean they would submit to HIV testing. There were other pre-requisites that were considered such as awareness where to take the test, financial resource, time and opportunity to do so. There were about one-third of the participants who did not return to SHC to get their results. Records retrieved from SHC also revealed a similar trend. There were other issues that emerged out of this study. First, the Ilonggo MSM participants still identified the value of moral standard in society, and in one way or another it influenced how they looked upon themselves and their decision to take the test. Second, the young MSM participants engaged in high risk behaviors and remained discreet about it, some to their friends and mostly to their families.

Recommendation

Cognizant of the above findings and conclusions of the study, the following are recommended:

For institution involved in HIV testing and counseling:

1) Empower MSM advocates for anti HIV campaign. Provide opportunities for them to be trained for counseling and increase the number of peer educators in the city. MSM advocates are able to reach out to the discreet population of gays in the city especially those who belong to lesbian, gay, bisexual and transgender (LGBT) groups/clans.

2) Scale up awareness about HIV among MSM in Iloilo City by reaching out to where they are (e.g. malls, bars identified streets and barangays) as well as utilizing social networks or social media (FM station) where the subjects actively join.

3) Include clarification of how effective are the risk reduction methods practiced by the participants during pre and post counseling among MSM, especially the importance of consistent use of condoms to all partners, including the regular ones.

4) Consider the possibility of establishing a male-friendly clinic in the city where straight and bisexual men who are afraid of "losing face" can access with regards to their health care needs.

5) Consider acquiring non-venipuncture test kits in order to test those who have phobia of needles and venipuncture but engage in high risk behaviors.

6) Consider the possibility of setting a time for HIV testing to be available during off office hours. Most young professionals were working during clinic hours of SHC and HACT.

For public officials responsible for youth programs and academic institutions:

1) There are high risk behaviors among the youth that the society needs to address and not remain passive about. There is a need to create programs to increase awareness and active promotion of positive morals and sense of responsibility in guarding one's health.

For research institutions to conduct:

1) Further studies about HIV testing among younger MSM less than 18 years old.

2) Further studies on why a lot of MSM who got tested never went back to receive their results.

3) Quantitative study to compliment and confirm the findings of this study with more participants and may include other members of MARP. *

COMPLETED INSTITUTIONAL RESEARCHES

1. Tracer study for the CPU College of nursing graduates from 2000 to 2004.
- By Carolyn L. Yoro and Nenalyn D. Abioda (completed June 2013)
2. Perspective Towards Schooling Opportunities of the Most At-Risk Population of Iloilo City
- By Marie Melanie J. Javier - Misajon (completed July 2013)
3. Faculty Members' Level of Satisfaction on the Institutional Services of the University
- By Merle L. Junsay (completed August 2013)
4. Nutrient Composition and Antioxidant Property of Philippine Indigenous Vegetables
- By Ilda G. Borlongan (completed September 2013)
5. The Effect of Different Green Leaf Manures and Commercial Organic Fertilizers on the Growth and Yield of Potted Cabbage and Leaf Lettuce
- By Ma. Victoria C. Serebrica (*draft report*)
5. CPU Staff, AY 2011-2012: Level of Satisfaction on Different University Services, Their Rights, Privileges and Functions
- By Fely D. Armadillo (*draft report*)
6. Adaptability and Horticultural Characterization of Different Moringa Accessions under Local Conditions (Observational Nursery)
- By Hope G. Patricio (*draft report*)

ONGOING INSTITUTIONAL RESEARCHES

1. Biomass Yield and Production of *Moringa oleifera* as Influenced by Plant Density and Frequency of Pruning
- By Manuel C. Palada, Hope G. Patricio and Diaden Elio
2. Design, Construction, and Testing of Microprocessors-Based Electronic Load Controller for Micro-Hydro System
- By Caesar Rico S. Acanto and Ramon A. Alguidano, Jr.
3. Students' Satisfaction on and Perceived Importance of Institutional Services of Central Philippine University
- By Florabel S. Suarez and Gift D. Tragico
4. Design and Evaluation of CPU-CARES Rice Hull-Fed Essential Oil Extraction Equipment
- By Joel H. Somosierra
5. Determination of the Degree of Harmonics Generated by the GPD 515 Controller and its Effects on the Stability of Power at Central Philippine University
- By Vitini Edhard O. Idemne, Alberto A. Java, Ramon A. Alguidano, Jr., Gelvie Lagos, Babylou G. Nava, Yeisel S. Sacramento and Caesar Rico S. Acanto
6. A Study of Ilonggo Voters' Perceptions on Patronage Practices and their Attitudes toward Intra-Familial Succession in Local Politics
- By Ernesto S. Saquibal, Jr. And Ma. Lindy B. Saquibal

ONGOING EXTERNALLY FUNDED RESEARCHES

1. Optimization of Lemongrass (*Cymbopogon citratus* Stapf.) Tea Preparation and Development of Beverage Products
- By Mizpah C. Villalobos, Emma T. Gico and Bernie C. Cangrejo (Funded by Commission on Higher Education-WVSU RRC)
2. Formulation and Distribution of Feed Rations for Free-Range Native Chicken
- By Jaime C. Cabarles, Jr.
(Funded by Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD))
3. Development of Meat-Type Native Chicken Breed
- By Jaime C. Cabarles, Jr.
(Funded by Department of Science and Technology - Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD)) and Department of Agriculture RFUVI)

Director's Desk



By Dr. Reynaldo N. Dusanan

RESEARCH AND CHED'S TYPOLOGY OF HEIs

Higher educational institutions (HEIs) all over the country are presently grappling on the recent issue of CHED's vertical and horizontal typology of HEIs. Vertically, HEIs may be classified as Regulated, Deregulated and Autonomous; while horizontally, they may be classified as Professional Institute, College and University. Any HEI has to consider both typologies not just the vertical or horizontal. As such, the combination of these typologies would result to the following classifications: (1.) Professional-Regulated, (2.) Professional-Deregulated, (3.) Professional-Autonomous, (4.) College-Regulated, (5.) College-Deregulated, (6.) College-Autonomous, (7.) University Regulated, (8.) University-Deregulated; and (9.) University- Autonomous. A higher education institution should define its own position in the typology and determine the classification it desires to be. It can opt to stay as a Regulated Professional Institution or to become an Autonomous University. These are decisions that higher education institutions have to make because movement from one classification to the next implies considerable investment.

CHED defines **Universities** as those institutions which provide highly specialized educational experiences to train experts in the various disciplinary and technical areas with emphasis on RESEARCH. Universities offer both the Professional Courses of the Professional Institutes and the Liberal Arts/Science courses of the Colleges but they are expected to do a lot of RESEARCH. An institution is considered a University if:

- * It has at least 20 degree programs of which at least 6 are in the graduate level;
- * At least 3 doctoral programs, one each in three different fields of study (distinct Fields of Study examples: Education, Management, Sciences etc.);
- * All graduate programs require thesis/dissertation and 50% of undergraduate programs require thesis or research papers;
- * At least 30 full-time faculty members or 20% of the full time faculty (*whichever is higher*) should be actively involved in research (evidenced by publication in refereed and CHED -acknowledged journals);
- * Annual research cost expenditures of P75,000/faculty involved in research;
- * Links with research agencies in various parts of the world.

Autonomous HEIs are those that demonstrate exceptional institutional quality through their Quality Assurance systems and excellent program outcomes. Exceptional performance shall be gauged according to the horizontal type of institutions viz. *Research and Publication for Universities; Creative work and Extension programs for Colleges and Employability and Linkages for Professional Institutes*. Autonomous HEIs enjoy the full freedom to do what they wish to do in their academic endeavors without the need to even inform CHED.

It is apparent that among the classifications, University-Autonomous status is the

highest. For an HEI to be on this classification, considerable research involvement is required. In the case of CPU, as of now, all graduate programs require thesis/dissertation and more than 50% of the undergraduate programs require a thesis or research paper. We have a total of 80 (29.5%) full-time faculty members who have been involved in research. Although only a few are actively involved as evidenced by publication in refereed and CHED acknowledged journals. Our average annual research expenditure per faculty involved in research is Php 75,000 or higher and we have links with research agencies in various parts of the world.

To fortify our position in these typologies, it is very important that our pool of researchers should effectively function by conducting quality researches, either internally or externally funded, and exert extra and special effort to prepare papers out of their research outputs for publications in refereed journals. Towards these ends, the University Research Center (URC) through the University Research Committee (URESCOM) is now proposing a package of better incentives for the conduct of research and publication of research papers in refereed journals. *

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