The Official Journal of
Central Philippine University
Volume 23, No.1 2000-2001

CPU Research Journal

Volumne 23, No. 1 **2000 – 2001**

This order in which the articles appear in this journal does not indicate relative merit.

Responsibility for views expressed in the articles is assumed by the authors. Those views do not necessarily reflect the position of Central Philippine University. Divergent viewpoints are especially encouraged.

This magazine is published once a year. Subscription rates: P100.00 per copy; foreign rates $5.00 per copy. Send inquiries to the Editor. Checks and money orders are payable to Central Philippine University, P. O. Box 231, Iloilo City, Philippines 5000.

Editorial Board

Published by:
Central Philippine University
Iloilo City, Philippines 5000

Cover Design by: **Cyrus A. Natividad**

CPU Research Journal

The Official Journal of Central Philippine University

Volume 23, No. 1, 2000-2001

CENTRAL PHILIPPINE UNIVERSITY

ILOILO CITY

FAMILY SUPPORT AND PERCEIVED QUALITY OF LIFE AMONG CANCER CLIENTS IN ILOILO

by :

Lily Lynn Velasco-Somo

Abstract

This study determined the adequacy of family support cancer clients receive at the time of their illness and whether the adequacy of support that they receive influences their extent of satisfaction with their quality of life. The data show that the adequacy of support received by the clients is significantly associated with the selected personal characteristics. Female, younger, and better educated tend to receive better family support than their male older and the less-educated counterparts. On the whole, clients receiving adequate family support tend to be more satisfied with their quality of life than those who were not receiving any support or those getting inadequate support.

Introduction

Background of the Study

The diagnosis of cancer, whether for the first time or for recurrence, threatens every client's sense of well-being. It also affects the family and friends of the individual who has cancer. Statistics obtained from DOH Region 6 shows that deaths of clients with cancer are increasing in the region. Nowadays, with the rising cost of hospital and medical expenses, more and more cancer clients receive care at home or as a cancer outpatient. Some clients are eager to return to their homes and families and feel that they can make a recovery only in the warmth and support of their own household. Most of these clients will be cared for in their homes by families, thus nursing has a role in helping cancer clients return to society and prepare their families to support and care for the clients within their own homes.

Cancer clients and their families should be assisted to identify whatever available support systems they may have, for in no other disease are the persons' inner resources and those of their families tested to a greater degree than when they are diagnosed with cancer. In most instance, the family constitutes the primary support group of cancer clients since they make up their immediate social environment.

Several studies have emphasized the benefits of being in a social support group. On the other hand, others say that giving help and providing support can be tiring and emotionally exhausting, especially those in the medical and helping professions who deal with many people and can sometimes suffer from burnouts.

Most studies on cancer care focus on the client diagnosed with cancer, the impact of cancer diagnosis on their family distress and how support groups outside of their family network have facilitated their adjustment to their illness. Information, if any, about specific types of support provided by the Filipino family to their cancer clients are sill limited. Moreover, there is also a dearth in information on the possible effect of the different types of family support provided on the client's adjustment or coping with their health problem. One question that needs consideration is whether the nature and extent of family support contributed to the cancer client's quality of life. This study will be conducted to address this concern.

Objectives of the Study

The primary objective of this investigation was to determine the relationship between family support and perceived quality of life of cancer clients after having been diagnosed and treated for cancer in the different communities in Iloilo.

Specifically, the study attempted to:

1. determine the extent of satisfaction with the perceived quality ality of life of cancer clients in terms of their functional status, social function and psychological well-being;

2. determine whether the types of family support received by the cancer clients vary in terms of their family income, family type and educational attainment of the family caregiver;

3. determine whether the types of family support received by the cancer clients vary in terms of their age, gender, civil status, work status, income, educational attainment and stage of cancer;

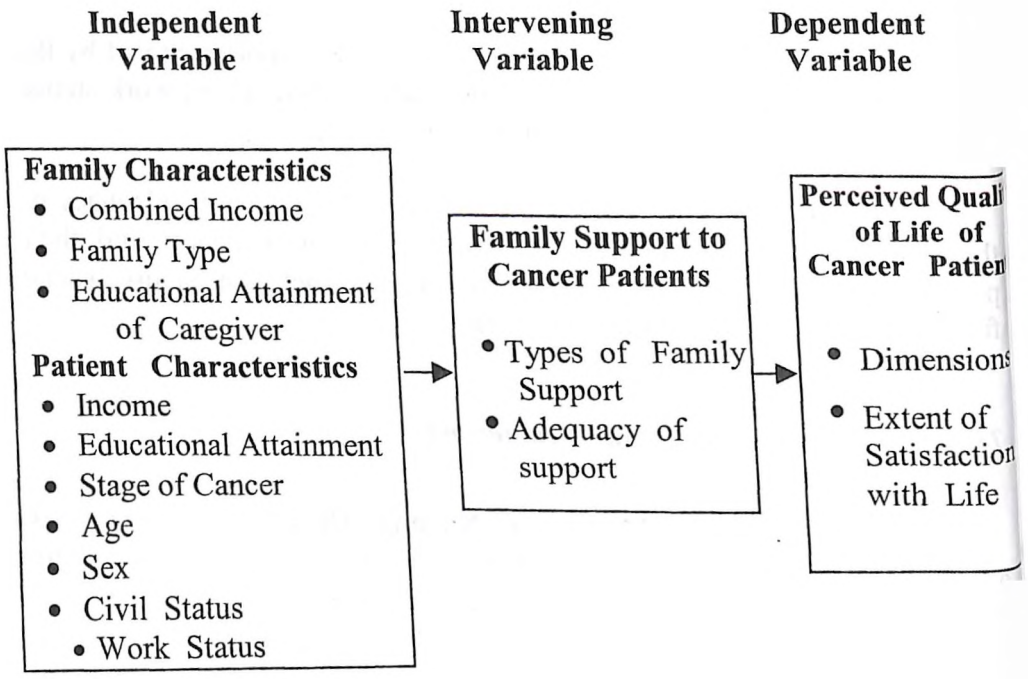
4. determine the relationship between the degree of adequacy of the types of family support received by the cancer clients and their perceived quality of life in terms of their functional status, social functioning and psychological well-being.

Theoretical and Conceptual Framework

The Adaptation Model of Nursing (Roy, 1995) describes adaptation as a process involving holistic functioning that affect health positively. The theory also stipulates that man is a holistic adaptive system who is in constant interaction with the changing environment. Cancer clients go through the process of adaptation to the diagnosis of cancer, and as they do so they are usually surrounded by people, family members especially, who serve as their support system.. The family is the immediate environment of a cancer client. Traditionally, the family is considered as the first line of defense of a person suffering from cancer who faces crisis. For them, the family is the main source of support.

The family is viewed as the provider of different types of support to their sick member. The cancer client, as an adaptive system, interacts with his/family, who can provide her/him material, emotional and/or appraisal support. When a client continuously receives support from his/her family, his/her adjustment to illness may be facilitated, thereby allowing them to experience a better quality of life despite their cancer illness.

Fig. 1 shows the assumed flow of relationship among the study variables.



Hypotheses of the Study

1. The adequacy of family support received by the cancer clients vary according to their age, gender, civil status, educational attainment, work status, income from all sources and stage of cancer when diagnosed.

2. The adequacy of family support received by cancer client is associated with variations in family characteristics in terms of their combined income, family type and educational attainment of the primary caregiver.

3. When the material support, emotional support, and appraisal support provided to the cancer client is very adequate, there is greater tendency for the clients to have a quality of life which is satisfying to a great extent, in terms of their functional status, social functioning and psychological well-being.

4. When the overall family support of the cancer client is very adequate, his/her overall quality of life tended to be satisfying to a great extent.

Methodology

The one-shot survey design was used in the study. Ninety cancer clients who had been diagnosed with cancer from October 1996 to November 1998 consented to be respondents in this study. They were purposively chosen from the cancer clients who had been admitted to hospitals, seen as outpatients at the different doctors' clinics or those visited by doctors in their homes. Data were collected through personal interview, using a structured interview schedule which was prepared by the researcher. The instrument was prepared based on results of preliminary interviews with the clients and some items adopted from the "Beck's Depression Inventory" (Brown, 1986), the "Ways of Coping Checklist" of Folkman and Lazarus (in Querol, 1998), and on Caplan's questionnaire on "Giving and Receiving Support" (1987).

Major Findings

Clients' and Caretakers' Characteristics

The cancer clients were 57.17 years old on the average 57.17. Table 1 shows that they were mostly female (68.9 %); married (65.6 %); college- educated (62.2 %), and were not gainfully working (54.4 %) at the time of the study. Those working were earning an average of Php 8,575.17 per month. Moreover, most of them belonged to a nuclear family (64.4 %).

Most of them were diagnosed with stage 2 cancer. The clients' caregivers were mostly college-educated.

Table 1. Clients' and Caretakers' Characteristics

Characteristics	f (n=90)	%
Clients' Characteristics		
Mean Age	57.167	
Civil Status : Married	59	65.6
Sex: Female	62	68.9
Educational Attainment : College and above	56	62.2
Work Status: Not Working	51	54.4
Mean monthly income of working clients	Php 8,575.17	
Family Type : Nuclear	58	64.4
Stages of Cancer		
Stage 1	7	7.8
Stage 2	35	38.9
Stage 3	31	34.4
Stage 4	17	18.9
Caregivers' Characteristics		
Education of Caregiver : College	56	62.2

Type and Adequacy of Family Support Received by Cancer Clients

On the whole, the cancer clients were provided very adequate family support, the over all mean being 4.002 in a scale of 1 (lowest) to 5 (highest).
Comparatively, they were provided more emotional support than material and appraisal support (means are 4.33, 3.765 and 3.78, respectively).

Data on specific types of support presented in Table 2 show that among the materials support provided by their respective families, were "spending time with client every day" (4.326), "giving a wig" (4.111) and "buying medicines" (4.082). All the items under emotional support obtained a mean score of 4 and higher, but the top three support items were: "touching" (4.719), "showing concern" (4.567), and "reassuring sick member of their support and love" (4.533).

Appraisal support was generally average. Only one support item obtained a mean score of higher that 4, which is "giving advise" (4.155). "Allowing client to express feelings" and "teaching client about the effect of treatment in the body" followed closely (3.933 and 3.826, respectively).

Table 2. Types of Family Support Received and Adequacy of Support Received (Mean Scores)

Types of Family Support (Top three items only)	Degree of Adequacy (Mean)
Material Support (Overall Mean)	**3.675**
Spending time with client	4.082
Buying a wig	4.326
Buying medicine	4.111
Emotional Support	**4.333**
Touching	4.719
Showing concern	4.567
Reassuring client of support and love	4.533
Appraisal Support	**3.780**
Giving advise	4.115
Allowing client to express feelings	3.933
Teaching clients about effects of treatment in the body	3.826
Overall Mean Adequacy of Support Score	**4.002**

Perceived Quality of Life and Extent of Satisfaction

On the whole, the cancer clients reported that they have a "satisfying" quality of life. They obtained an overall mean satisfaction score of 3.571, in a scale of 1 (lowest) to 5 (highest) in terms of their functional status, social functioning and psychological well-being, even after cancer diagnosis, the mean score being (Table 3). Of the three dimensions of quality of life, the most satisfying for them was functional status (3.773), while the least satisfying is social functioning.

This is understandable because when one is not feeling well, his/her social activities and interaction with people are limited.

Table 3. Dimensions of Perceived Quality of Life and the Clients' Extent of Satisfaction with each

Dimensions of Perceived Quality of Life	Extent of Satisfaction with Life Mean
Functional Status	**3.773**
Social Functioning	**3.071**
Psychological Well-Being	**3.665**
OVERALL RATING	**3.571**

Relationship Between Selected Client and Family Characteristics and Family Support Received

Age and perceived quality of family support . On the whole, younger cancer clients tended to receive more adequate overall family support than their older counterparts (Gamma=0.578). Of the three types of support, appraisal support exhibited the highest degree of association with age (.318). The degree of association between age and material support and the relationship between age and emotional support are negligible (.059 and .108). The figures indicate that irrespective of the cancer client's age the clients still received adequate family support (Table 4). This means that young or old, any sick member of the family is provide the best care possible.

Income and perceived quality of family support. On the whole, cancer clients who have higher income were more likely to receive sufficient overall family support than those with less family income. The relationship between the two variables is high and significant at 5 percent level (Gamma = .83). This is substantiated by a very high degree of association between income and material support (Gamma =.985). Health care, especially of those with lingering illness is expensive. This is further affirmed by a high positive association between family income and perceived quality Unless one has money to spend, the sick will continue

to suffer, not only from physical pain, but also from anxiety, and this will affect the patient's quality of life.

Inversely, the lowest degree of association with income was posted by emotional support. Indeed one does not need money to be able to provide emotional support. of life (G=.626).

Stage of cancer and Perceived Quality of Care. The data also show that the cancer clients whose cancer was still in the early stage received more adequate support, than those whose cancer was in advanced stages (Gamma=0.315).

Education of caregiver and perceived quality of life. The educational attainment of the care giver was also found to be significantly associated with the clients perceived quality of life (Gamma =.564). Clients with better educated caregivers tended to perceived a more satisfying quality of life than those with less educated caregivers. Apparently, an understanding of the illness and the kind of care they need helps one to be a better caregiver.

Table 4. Gamma Coefficients for the Relational Analysis Between Adequacy of Family Support Received and Selected client and Family Characteristics

Adequacy of Family support	Age	Income	Stage of Cancer	Family Income	Education of Caregiver
Material Support	.059	.985	.066	.834	.858
Emotional Support	.108	.295	.0621	.54	
Appraisal Support	.318	.497	.305	.310	.44
Overall Family Support	.578	.830	.315	.626	.564

Relationship Between Types of Family Support and Dimensions of Perceived Quality of Life

Table 5 shows that the degree of adequacy of the material and emotional support of cancer clients has no important bearing on their

functional status. However, the adequacy of appraisal support provided by their families impinges on the functional status of the clients. The adequacy of the material support received by cancer clients is associated with their social functioning; while the degree of adequacy of the emotional and appraisal support of the cancer clients has nothing to do with their social functioning. However, the degree of adequacy of the material, emotional and appraisal support of the cancer clients has an important bearing on their psychological well-being.

On the whole, the cancer clients overall family support has an important bearing on their quality of life with regards to their functional status, social functioning and psychological well-being (Gamma=0.443).

Table 5 Distribution of Respondents According to Overall Adequacy of Family Support and Extent of Satisfaction of Perceived Quality of Life

Extent of Satisfaction With Quality of Life	Overall Adequacy of Family Support					
	Very Adequate n = 76		Adequate n = 14		Total n = 90	
	f	%	f	%	f	%
Satisfying to a great extent	33	43.4	3	21.4	36	40.0
Satisfying to a moderate extent	42	55.3	11	78.6	53	58.9
Satisfying to a small extent	1	1.3	0	0.0	1	1.1
Total	76	100.0	14	100.0	90	100.0

Gamma = 0.443

Interrelationships among the Types of Family Support and Dimension of Perceived Quality of Life

The data in Table 6 show that none of the correlation coefficients (r) between any of the types of family support and any of the three dimensions of quality of life is zero, which means that there is a correlation between each variable in the matrix. However, since the correlation coefficients from 0.01 for material support and functional

status to 0.19 for material support and psychological well-being, all correlation values can be interpreted as negligible or almost nil.

The findings show that the adequacy of family support received by the cancer client, whatever the type, does not have a strong bearing on their quality of life in term of their functional status, social functioning and psychological well-being.

Table 6. Correlation Matrix (r) of the Interrelationships Among the Types of Family Support and Perceived Quality of Life Dimensions

Perceived Quality of Life Dimensions	Type of Family Support		
	Material	Emotional	Appraisal
Functional Status	0.0114	0.1391	0.1783
Social Functioning	0.1813	0.0271	0.1122
Psychological Well-being	0.1908	0.0830	0.1439

Conclusions

In general, the cancer clients were being provided adequate material, emotional, and appraisal support. The most adequate support they were getting was emotional in nature. The adequacy of support the clients received varies according to their age, educational attainments income and stage of cancer diagnosed. Clients who were younger, better educated, and those receiving higher income, received better family support than their older, less educated and less compensated counterparts. Clients who were in their stage of cancer also received better support than their peers who have more advanced cancer.

The adequacy of support the clients received from their families, however did not vary according to sex, civil status, and work status. Both male and female, single and married and working as well as the working and the non-working clients received sufficient family support.

The appraisal support from their families exhibited an important bearing on the functional status of the clients. On the contrary, the adequacy of materials and emotional support were found to be significantly associated with their degree of satisfaction with social functioning or their quality of life.

In general, the overall adequacy of family support received by the cancer clients significantly affected the satisfaction with their quality of life. The more adequate the family support they received the more satisfied they are with their quality of life.

Recommendations

1. The provision of family support to family members suffering from terminal diseases, like cancer, must be continuously promoted and strengthened. Specifically, material and appraisal support of family, caregivers, friends and hospital personal must be further enhanced to facilitate their adjustment of clients to their illness.

2. Since the cancer clients have satisfying quality of life in n terms of their functional status, social functioning and psychological well-being, health care providers, the family, cancer clinics and social support groups must help educate their cancer clients through an educative-supportive or developmental approach, like outlining activities that will make their remaining days more satisfying and meaningful.

3. Hospital administrators, physicians of cancer clients and other her health care providers should be encouraged to form and organize hospital or clinic-based support groups composed of the health care providers, cancer clients and their families whose activities will include home visitations, cancer education for the clients and their families, hospice care and dissemination of cancer information to the public. Such support group can also help families of cancer clients and the clients themselves gain more information about cancer, share

their experiences, provide moral support for others and empower themselves.

4. The DOH should include in its cancer control program activities to increase public awareness about the role of support groups in increasing the cancer client's chance of surviving.

5. Student nurses and hospital staff nurses should be encouraged to attend special in-service education workshops that will equip them with knowledge, expertise and an open attitude to answer all questions that cancer clients and their families would ask regarding their disease and prognosis.

6. A similar study should be conducted involving a wider scope in terms of locale, time and number of respondents. It is also suggested that future researches should look into other variables not included in the study, such as spiritual support; the coping strategies of cancer clients and family; or other internal psychological factor that may affect the cancer client's quality of life; as well as different type of analysis. A more in-depth research method, like case study is also recommended.

7. Similar studies focusing on other diseases with impact similar to that of cancer, such as : chronic diseases; degenerative disorders; debilitating; and incurable diseases such as HIV/AIDS are encouraged.

Bibliography

American Cancer Society, Inc.. 1963. A Cancer source book for nurses, New York.

American Cancer Society, Inc. 1963. Essentials of cancer nursing - A primer on cancer for nurses. New York.

Androkites, Arlene L. and Rosemary Drigan. Cancer, 1991. Vol 2 Patient Teaching Loose-Leaf Library. Pennsylvania: Springhouse..

Black, Joanne M. and Elizabeth Matassarin-Jacobs. 1993. Luckmann and Sorensen's-medical-surgical nursing A psychophysiologic approach 4th ed. Philadelphia: W.B. Saunders Company.

Brannon, Linda and Jess Feist. 1992. Health and psychology an introduction to behavior and health. 2nd ed. Belmont, California : Wadsworth Publishing Company.

Brehm, Sharon S. and Saul M. Kassir. 1996. Social psychology. 3rd ed. Boston : Houghton Mifflin Company..

Department of Health. Manual of Operations Philippine Cancer Control Program. Manila: DOH, 1990.

Garrison, Judith Garret and Scott Sheperd. 1989. Cancer and hope charting a survival course. Minnneapolis : CompCare Publishers.

Ignatavicius, Donna and Marilyn V. Bayne. 1991. Medical-surgical nursing A nursing process approach. Philadelphia : W.B. Saunders Company.

Illustrated Manual of Nursing Practice. 1991. Pennsylvania : Springhouse Corporation.

Johnson, Judi and Linda Klein. 1988. I Can Cope Staying healthy with cancer. Minneapolis : DCI Publishing.

McQuiston, Chris Metzger and Adele Webb, ed. 1995. Foundations of nursing theory contributions of 12 Key Theorists. California : Sage Publications.

National League of Government Nurses, Inc. 1995. Committee on Community Health Nursing Section. Community Health Nursing Services in the Philippine Department of Health. 8th ed. Manila,

Patrick, Maxine L. et al., 1991. Medical-surgical nursing pathophysiological Concepts. 2nd ed. Philadelphia : J.B. Lippincott,

Pender, Nola J. 1987. Health promotion in nursing practice. 2nd edition. Norwalk, Connecticut: Appleton and Lange.

Phipps, Wilna J. et al. 1991. Medical-surgical nursing concepts and clinical practice. 4th ed. St. Louis : Mosby Yearbook.

Sarason, Irwin G. and Barbara R. Sarason. 1996. Abnormal psychology the problem of maladaptive behavior. 8th ed. New Jersey : Prentice Hall, Inc. 1996.

Taylor, Shelley E. 1986. Health psychology. New York : Random House, Inc., 1986.

THE EFFECT OF TOUCH ON THE PAIN REACTIONS OF FULL-TERM NEONATES WHO HAVE UNDERGONE EARBORINGAT SAINT PAUL'S HOSPITAL

Therese Trisky L. Sabay

Abstract

The study was conducted to determine the effect of touch on the pain reactions of full-term neonates who have undergone ear boring. Touch was applied to the experimental group, but withheld from the control group. The findings showed that touch minimized the pain reactions of the experimental group, much more than among those to whom touch was not applied. The reduction in crying pattern, breathing pattern, respiratory rate, heart rate, motor activity of the legs, state or arousal and the over-all pain reactions to ear boring of full-term neonates was significant greater among those who were touched than among those who were not touched.

Introduction

Pain is a phenomenon present at any stage of life. Neonates, small as they are, also experience pain. Their general reaction to pain stimuli is body movement associated with brief, loud crying and facial expression. Part of the role of health care professionals is the management of pain, also known as pain relief. Pain relief methods may be pharmacologic, the use of anesthesis or analgesia, or non-phamacologic, like providing a safe comfortable environment and sensory enrichment as in visual, auditory, tactile or olfactory interventions. Touch is one form of non-pharmacologic intervention for pain.

Although touch has been recognized as an important element of caring and pain alleviation, it still has not been utilized to the fullest for pain alleviation by health care providers. This may be so because of their conflicting views about the effectiveness of touch in relieving pain. Most studies in pain alleviation have considered pharmacologic and non-pharmacologic. Touch would fall under the latter. Most of the studies on the effect of non-pharmacologic

interventions, however, focus on alternatives, other than touch. Only a few, if any have studied the effect of touch in pain alleviation, thus this study.

Objectives of the Study

This study was conducted to determine the effect of touch on the pain reactions of full-term neonates who had undergone ear boring. Specifically, the study aimed to find out whether infants who had been touched would exhibit significantly less crying pattern, breathing pattern, respiratory rate, heart rate, motor activity of the legs, state or arousal and the over-all pain reactions than those who were not touched.

Theoretical and Conceptual Framework

The "gate-control" theory of Melzack and Wall (1965) states that pain impulses can be modulated by the opening and closing of a gate. They propose that when the gate is open the pain impulses are readily transmitted. When the gate is closed the pain impulses are not transmitted. If the gate is partially open, only some of the impulses can be transmitted. Touch is assumed to prevent the passage of pain impulses.

Neonates are very sensitive to touch. Infants who experience ear boring suffer from pain caused by the piercing. Touch is expected to help alleviate the that the infants feel during their ear boring. It is assumed that by touching them the gate to pain transmission will close and stop further pain stimuli, thereby lessening the pain sensation of ear boring. Even if they experience pain, the infants who are touched during the ear boring procedure will probably experience less pain than those who were not touched.

The schematic diagram on the assumed relationship between touch and pain is shown in Figure 1.

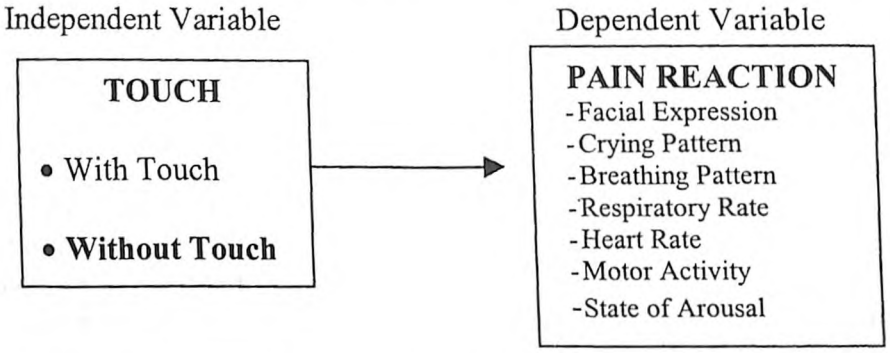


Fig. 1. Assumed Flow of Relationship Between Touch and Pain Reaction

Hypotheses

1. There is no significant difference in the facial expression score of full-term neonates who had ear boring and had been touched from those who had not been touched.

2. There is no significant difference in the crying pattern of full-term neonates who had ear boring and had been touched from those who had not been touched.

3. There is no significant difference in the breathing pattern of full-term neonates who had ear boring and had been touched from those who had not been touched.

4. There is no significant difference in the respiratory rate of full-term neonates who had ear boring and had been touched from those who had not been touched.

5. There is no significant difference in the heart rate of full-term neonates who had ear boring and had been touched from those who had not been touched.

6. There is no significant difference in the motor activity of the arm and that of the legs of full-term neonates who had ear boring and had been touched from those who had not been touched.

7. There is no significant difference in the state of arousal of full-term neonates who had ear boring and had been touched from those who had not been touched.

8. There is no significant difference in the over-all mean reaction score of full-term neonates who had ear boring and had been touched from those who had not been touched.

Methodology

The posttest only-control group design was used in this study. The subjects of the study consist of 30 full-term neonates born at Saint Paul's Hospital from August 1, 1998 to February 15, 1999 and who had their ears pierced.. They were assigned at random to the experimental and control group. Touch, using a procedure adapted from the Guide to Infant Massage, was applied to the experimental group for a duration of ten minutes, eleven minutes before the ear boring procedure. The touch intervention, however, was not applied to the 15 infants in the control group. Both groups of subjects were observed for pain reactions at the first instance of pain using the Neonatal Infant Pain Scale.

The t-test for difference between two independent samples tested at 0.05 level of significance was used to analyze the difference between the mean pain scores of the experimental and the mean pain score of the control group. The hypotheses were tested at .05 level of significance.

Findings

Age and Weight of the Neonates

The results of the study reveal that the experimental and the control groups of neonates did not significantly differ in gestational age, weight and present age. The average gestational age of the experimental

group was 38.8 weeks while that of the control group was 39 weeks. No significant difference in gestational age was found between the two groups (t-test=0.79). The average weight of the experimental and the control groups of neonates did not also significantly differ (2.82 kg and 2.88 kg, respectively), as show by a t-test result of 0.73, which was not significant at 0.05 level.

The experimental and the control groups did not also differ significantly in terms of age at the time of ear boring. The mean age of the first group was 2.8 months, while the second group was 3.0 months. The t-test value of 0.76 did not reach the 0.05 level of significance. This means that the experimental and the control groups have about the same age at the time of ear boring. The two groups there fore are comparable.

Table 1. Mean Scores in Gestational Age, Weight and Present Age of the Experimental and the Control Groups

Variables	Exptl Group	Contrl Group	t-Value	Sig.
Gestational Age	38.80	39.00	0.79	ns
Weight	2.82	2..88	0.73	ns
Present Age	2.80	3.00	0.76	ns

Ns – Not significant

Effect of Touch on the Pain Reaction of the Neonates

The result of the study showed that there is a significant difference between the pain reactions of full-term neonates who have undergone ear boring and have been touched and those who have not been touched. More specifically, a decrease in the manifestation of pain was in the infants' crying pattern, breathing pattern, respiratory rate, heart rate, motor activity of the legs, and in the state of arousal.

The differences between the mean scores of the group who were touched and the mean scores of those who were not touched registered t-test values of 3.64 for crying patterns, 2.70 for breathing pattern, 3.02 for respiratory rate, 3.04 for heart rate, 5.15 for motor activity of the legs, and 6.04 for the state of arousal. Except for motor activity of the arm, all t-test values were significant at 0.05 level.

There was no significant difference in the facial expression and motor activity of the arms of the experimental and control group. The mean score for facial expression of the experimental group was 0.86, while that of the control group was 0.96. The t-test for the difference between the means was not significant at 0.05 level.

The difference between the mean scores for motor activity of the arms of the neonates who were touched was 0.06, while the mean score for those who were not touched was 0.26. The test for difference between means registered a t-test value of 1.54, which was not significant at 0.05 level.

Bell's findings (1995) show that facial expression and crying are common indicators of pain among young children. Studies reviewed by Lester and Boukydis (in Chamberlain, 1989) also revealed similar observations

Toye's (1994) findings also pointed out that touch resulted in a significant reduction in anxiety which manifests in the reduction of respiratory rate. Mackey (1995) similarly noted that the first observable response to touch is rapid relaxation which also means lower hear rate. Fishman (1995) also reported a significant decrease in cardiovascular variables and experience of pain as a result of physical contact.

Table 3. Means, differences in means between the experimental and the control groups in terms of the various indicators of pain reactions and their t-test results.

Pain Reactions	Experimental Group (n=15)	Control Group (n=15)	t-value
A. Facial Expression	0.86	0.93	0.65
B. Crying Pattern	0.73	1.46	3.64*
C. Breathing Pattern	0.66	0.93	2.70*
D. Respiratory Rate	43.6	47.4	3.02*
E. Heart Rate	144.6	154.2	3.40*
F. Motor Activity of the Arm	0.06	0.26	1.54ns
G. Motor Activity of the Legs	0.06	0.73	5.15*

*Significant at .05 level

ns – Not significant at .05 level

Over-all Pain Reaction

On the whole, the effect of touch on the pain reaction of the full-term neonates based on the over-all mean score of all the pain indicators was significant in favor of those infants who were touched during the ear boring. The mean score of 2.6 for the experimental group was significantly lower than the mean score of 5.26 obtained by the control group. The hypothesis that there is no significant difference in the pain reaction of infants who were touched and the pain reaction of those who were not touched cannot be rejected. The test result shows that on the whole, infants who were touched experienced less pain reaction than those who were not touched. This means that touch reduces pain among infants.

The positive effects of touch in the reduction of pain reaction among neonates who experienced ear boring find support in the studies of Fishman, et. al. (1995), Dima-ano and Aliwalas (1997) and many others. On the whole the "gate control theory" find empirical support in this study. The findings show that in general touch is able to partially "close the gate" that allows the transmission of pain to the pain center of perception and reaction (Melzak and Wall, 1965).

Table 3. Means, differences in means of overall pain reaction rate between the experimental and control groups and the t-test results.

Over all pain Reaction	Experimental Group (n=15)	Control Group (n=15)	Computed t
- (0) No Pain	2	0	
- (1-2) Mild Pain	3	0	
- (3-5) Moderate Pain	10	10	
- (6-7) Severe Pain	0	5	
Mean	2.6	5.26	8.48*

* Significant at 0.05 level

Conclusions

In the light of the foregoing findings, it can be deduced that touch applied before the painful procedure like ear boring, lessens pain reactions in infants, specifically: crying pattern, breathing pattern, respiratory rate, heart rate, motor activity of the legs, state of arousal and over-all reactions. The "gate control theory" finds strong support from this study. Among infants whose ears were pierced, touch may have reduced the chance of noxious stimuli to pass through the pain center for perception, interpretation and pain reaction. This may have reduced pain and reduced pain reactions.

Recommendations

1. Hospital administrators need to support the promotion of touch therapy in the health care service since touch is found to be beneficial to the health care customers.

2. Hospital Practitioners (doctors, nurses, midwives, etc.) should utilize touch therapy in pain management as well as in other areas of health care services as that of relieving anxiety, in promoting growth and development of infants, etc., most particularly in balancing the world of cutting-edge technology.

3. Nursing Educators should strengthen in the curriculum the teaching of holistic, non-invasive, economical intervention – touch – in pain management. Furthermore, they must provide the students some avenues for related learning experiences to perfect 'touch', making them clinically sensitive and able to compassionately render service to others.

4. Parents/would-be-parents must recognize and practice ctice touch therapy as a bond that will keep their families closer to one another.

5. It is recommended that this study be replicated among other er age groups, in other settings, using other procedures.

References

Goldstein, E.Bruce. 1984. Sensation and perception. Second edition. California: Wadsworth Publishing Co..

Montague, A. 1978. Touching: the human significance of the skin. Englewood Cliff, New Jersey: Prentice Hall.

Whaley, Lucille and Donna Wong. 1987. Nursing care of infants and children. Third Edition. St. Louis: The CV Mosby Co.

Axia,Giovanna and Sabrina Bonichini, et. al. August 1995. "Pain in infancy: individual differences." Perceptual and Motor Skills. 81(1). .

Bell,Susan. December 1995. "Asseseing pain in neonates," American Journal of Nursing.95(12).

Chamberlain,David, Summer 1989 "Babies remember pain," Pre and Perinatal Psychology Journal.

Eidelman, AI,et al. January 1994. "Comparative tactile behavior of mothers and fathers on their newborn infants ." Israel Journal of Medical Science. 30(1).

Hamers,J.et al." November 1994. Factors influencing nurse's pain assessment and intervention in children." Journal of Advance Nursing 20(50).

Harrison,L.et al.),March 1996 "Effects of gentle human touch on preterm infants pilot study results," Neonatal Network.15(2).

Nixon, M.et al," Expanding the Nursing Repertoire:The Effect of Massage on Postaperative Pain."Australian Journal of Advance Nursing.14(3), March-May 1997.

Samarel,N. November 1993"The experience of receiving therapeutic touch and chronic skin disease," Dermatology Nursing Resaerch .2(4).

Luna,Hermingilda. 1996. "The effect of varied types of nursing approach on pain behavior after surgery" Unpublished Masters Thesis.University of the Philippines.Diliman,Quezon City.

FILIPINO MEN ON DOMESTIC VIOLENCE: THEIR FAMILIAL RELATIONSHIPS, EXPERIENCES, VALUES AND NEEDS

Fely P. David, Ed. D.*

Abstract: *This study examined men's views on and experiences with domestic violence, their values and needs through FGD and in-depth interviews with married men from various sectors in rural and urban areas in Iloilo City. Findings show that men are the usual perpetrators, while wives and children, the usual victims of domestic violence. Men blamed their violent acts on their wives' nagging and untoward behaviors. For many of them, "it is normal for husbands to hurt their wives sometimes" and they expect wives to understand and be patient with them. Men kick, beat or slap their wives/partners and also verbally abuse them especially when the women nag, gamble or become unfaithful. The men acknowledged however, that violence is not necessary and can/must be avoided. Many of them also feel bad when they hurt their wives/children. They admitted that they want to change, but need help to do so.*

Introduction

Background

The incidence of violence against women and children in many countries, including the Philippines is high and still increasing. An analysis of reported cases in courts in three major cities (Manila, Cebu, and Davao), and in institutions of the Department of Social Welfare and Development (DSWD) in Luzon, Central Visayas and Southern Mindanao, revealed that in 1992 alone, there were 373 cases of domestic violence. In 62 percent of the cases, the victim was a married woman (Feliciano, 1997). In Iloilo Province in Western Visayas, the number of cases of domestic violence filed by

---

This paper was read by the author at a Research Lecture Forum at Baylor University, Texas, USA on October 5, 1999 and presented at the Joint NWRCSEAS/CCSEAS International Conference on "Emerging Southeast Asian Identities in an Era of Volatile

Globalization," at the University of British Columbia, Vancouver, Canada on October 22-25, 1999.

the police, courts and institutions had increased from 265 in 1992 to 365 in 1996. Most of the victims were also married women and the usual perpetrators were husbands or partners (PNP Records).

The rising incidence of domestic violence in the country and in other parts of the world has triggered a growing interest on the subject. Since women and children have been recognized as the usual victims of domestic violence, it is understandable that most initiatives to curb it have been focused on women and children. Since they are believed to be generally powerless to resist violence, it is assumed that they need to be provided assistance/services and to be protected against further violent attacks.

The men, on the other hand have been identified as the usual source of domestic violence. As perpetrators of violence, they are usually perceived as the "villains" or the "bad guys." The portrayal of men in these images is strikingly accurate and derives sufficient evidence from many studies. The national study of the University of the Philippines Center for Women Studies[5] reveals that eight in every ten abusers/ perpetrators of domestic violence against women and/or children --are indeed men. Several other studies in the Philippines and abroad revealed the same results (Lui, 1995 ; David, Chin, and Herradura, 1998, David, 1996).

Theoretical Framework

Men's use of their physical strength against women and children does reflect men's power over the latter. But why do men hurt women and children. Male violence definitely does not happen in a vacuum: it is embedded in the complex sociocultural milieu and their past and present familial experiences.[7] Sobritchea and Israel (1995) in their analysis of various frameworks on family violence confirmed that indeed, men's propensity to commit physical violence has multiple and complex explanations.

The *interactionist theory* serves as a guide in pursuing this research and the analysis of domestic violence (Lee, 2000) This theory

looks beyond perpetuating sociocultural conditions of male dominance. It identifies the combined and interactive influence of social, psychological, and sociopolitical conditions that trigger violent behavior. Specifically, the theory recognizes the contribution of the macrosystem (broad sets of cultural beliefs and values); the exosystem (stressful events, such as job stress, unemployment, or lack of welfare support); microsystem (family structure relating, for instance to power relations and pattern of communication); and ontogenetic (features of the individual's development experience that shapes his/her responses to the microsystem or ecosystem stressors, including learned habits, verbal skills, patterns of emotional response and other acquired behavioral characteristics).

The broad arguments of theories on domestic violence suggest that the antecedents to male violent behavior, while attributed to a certain degree to pathological causes, are more significantly rooted in the sociocultural and familial environment in which men, along with their female partners and children, interact. Because violence is directed and shaped by conditions within the society, it thus implies that it can be reshaped by modifying these conditions. Unfortunately, however, the Filipino society tends to overlook this perspective. Although efforts to curb violence has been getting so much attention, these efforts will still be inadequate, unless the source of violence is also examined, and understood and appropriate actions to change or modify situations to reduce or eliminate the violence is done. In order to understand the problem better and identify the most appropriate interventions to address the problem, it is important that the men's views about violence and their experiences with it be studied.

Study Objectives

In general, the study aimed to examine the men's role as sources of household-based violent behavior. Specifically, the study sought:

1. to examine men's domestic violent experiences, particularly, the common types of violence observed or experienced by the men, the sources and the recipients of violence, the duration and frequency of violence, and the circumstance in which violent incidents happen;

2. to determine men's values in terms of their perceptions regarding marriage, family and husband-wife relationship;

3. to determine how men themselves see men and in relation to other men, their female partners, children and the elderly; men's emotional expression, their awareness of the consequences of the violence they commit, and their perceptions regarding the possibility of behavior change among violent men.

Methodology

This study is exploratory in nature and utilized qualitative approaches, particularly focus group discussions (FGD) and in-depth interviews. FGDs were conducted to gain insight into the participants' familial relationships, values, needs and their views about family conflicts. The in-depth interviews were conducted to examine more closely men's perceptions and experiences regarding family life, conflicts and violence and views on possible behavior change of violent men. In addition, a survey of resources in the communities was done to determine what services are available to for victims as well as sources/perpetrators of violence.

The study was conducted in one urban and one rural communities in Iloilo, Western Visayas, Philippines. Iloilo City, the only chartered city in the Province was purposely chosen as the urban area. Dingle, an agricultural municipality, located approximately 30 kilometers from Iloilo City was identified as the rural area.

The core study participants were men who had been married for at least five years. Eighty purposively identified men participated in the FGDs and 80 men served as key informants for the in-depth interviews. Half of the men were selected from the urban study area and the other half from the rural area. The sample was equally allocated to four sectors; namely the academe, military, professional/office workers and producers/entrepreneurs/ community folks. Half of the sectoral samples were below 40 years old and the other half were 40 years old or older.

Ethical Consideration

The study participants' decision to participate was voluntary. The nature, scope and purpose of the study were explained to them and they were assured that any information they shared will be held confidential. They were given the option to refuse to participate or drop out of the study if they so desired.

Results and Discussions

Men's Experiences With Domestic Violence

The men acknowledged that many simple conflicts can become serious and lead to violence and cause either psychological/emotional or physical harm not only to the wife or husband, but also the children. FGD participants reported having observed and experienced the progress of conflicts from simple verbal quarrels to physical aggression.

Except for one, all of the 80 men interviewed reported having observed conflicts which had led to physical violence. The most common type of conflicts observed by the men were verbal in nature (90 percent). Nearly half of the men reported having seen or observed incidence of physical violence, most of which started in arguments triggered by conflicting opinions/views on certain issues, displeasure or frustration of one over a questionable act/behavior of the other.

Nearly half (48.7 percent) of the men admitted having hurt their wives, verbally most of the time (18 responses), but eleven (13 percent) admitted having physically harmed their spouses. The most common forms of physical violence observed or experienced by the men were slapping, punching, throwing things or hard objects at the victim. Pushing, choking, dragging and whipping a victim were also reported. Most often, the physical abuse is preceded or accompanied by verbal abuse in the form of cursing, swearing and or insulting statements. FGD participants, likewise admitted having committed the same acts of violence.

Recipients and Sources of Violence

Consistent with results of previous studies on domestic violence, the most common victims of home-based violence observed or experienced by the men were wives and/or children and the most common sources/perpetrators were husbands or male partners. The men acknowledged that most violent acts are initiated by men. Only very few men have been physically hurt by their wives/partners.

It is interesting to note that most of the self-confessed wife beaters did not admit the blame for their act. They blamed their partners/wives instead for initiating the verbal confrontations which had lead to their physical encounter. Few of the men claimed that they have also been abused by their wives, but mainly verbally. They quickly added that some men retaliate physically against their partners/wives who verbally or physically hurt them. There are women who physically abuse of their husbands/spouses because of men's irresponsible behaviors and wrong doings that threaten family harmony.

Causes and Precipitators of Violence

The perpetrators justified that they become violent only because of the nagging, irrational accusations, and other irritating behaviors of their wives/partners. They said that these acts "demean them and insult, or challenge their manhood or authority." They added that, they do these "to stop their mouth," "to correct their behavior," or to "give them a lesson," often "a painful one for them to remember." Apparently the men could not tolerate direct verbal confrontation by their wives about their "acts of omissions" (irresponsibility, thoughtlessness, indifference, etc) or about their vices and other misbehaviors (drinking, gambling, philandering). . Men's descriptions of nagging in the local dialect imply negative meanings "*wara-wara*," "*wirik-wirik*," "*yaw-yaw,*" etc.

Drunkenness predisposes men to be violent. Most of the physical violence of men occurred when they were under the influence of liquor. They said that at the state they are easily provoked and the effect of alcohol makes it difficult to control their anger. Some men attribute their violent behavior on their family background. Three self- confessed wife beaters recounted how their father constantly beat their mother in their

presence. They recalled that their father also beat them when they tried to protect their mother. They related that the beatings were so frequent that they got so used to it and admitted that now they are easily provoked and for them it seem so natural to beat their wives.

Men's Reactions/Feeling After Hurting Women or Children

Ironically, many of the violent men admitted that they also feel bad and hurt when they see the person they hurt crying or suffering from pain. Many of them expressed regret for hurting their wives/partners. They said that they also feel guilty and remorseful after a violent incident because most often, they do not intend to really hurt their partners/wives. Even frequent wife beaters admitted experiencing remorse and guilt. After realizing what they did, they usually ask for forgiveness and try to do something to please the person they have hurt.

There were some perpetrators, however, who said that they do not feel any guilt or remorse after beating their wives/partners. They felt that "it is the right thing to do" because their wives'/partners' "deserve what they get." This reaction is usually triggered by infidelity. The men also expressed that when women fight back either verbally or physically, they often get more hurt because this reaction makes men more angry and further drive them to be more violent. According to them this challenges their manhood and threatens their authority or control at home.

Men's Values and Needs

For the men, marriage is an important event in a life of a couple. Their reasons for marrying fall under three general categories: 1) for companionship and security in old age, 2) to have children (procreation) and 3) for sexual fulfillment (biological reasons). Other reasons given were: "to fulfill one's responsibility to their family," and "for economic reasons. "

Most of FGD participants expressed a desire to have a peace and harmonious marriage. They acknowledged that in a good marriage the husband and the wife are the most important ingredients. They blamed failed marriages on: a) infidelity of a spouse, b) interference of in-laws, poverty, c) unemployment of husband/wife, d) financial

problems, e) vices of either or both husband and wife (drinking, gambling) and f) poor communication between husband and wife and the children. Abusive behavior of the husband/wife, lack of faith in God, incompatibility, and sexual dissatisfaction were also mentioned.

The men agreed that if they remain faithful to their wives, provide adequate support to their family, spend time with his family, love his wife and children, and prepare for the future of the family, domestic conflicts can be avoided. They stressed, however, that wives should efficiently perform her nurturing role and "wifely" obligations to make her family happy. This means "taking care of the needs of their children and those of their husband," "loving their children and husband," "taking care of their house such as doing chores, making sure that the house is clean," and "informing the husband about the things needed in the house." They added that wives should also take care of themselves, be patient with their husbands and be supportive and faithful to them.

The men apparently value their children very much. They shared the belief that well provided and healthy children make a happy home. Children who are diligent in their studies and are healthy make them happy fathers. For Filipinos, family life truly centers on the children. Parents work hard to support their children. Many parents are even willing to sacrifice even their own needs for their children's sake.

The value Filipinos attach to children has not changed. Chilren are valued by their fathers the same way their grand fathers valued their own children. This has been has been reported by several studies on family which had touched on value of children.

Men on Men

The men's descriptions of men's character reflect a general view that men symbolize strength and power. The words/phrases they commonly used to describe men include: 'poderoso' (powerful), 'haligi sang panimalay (post of the family), manug-apin (defender), provider, risk-taker, and other words which connote power and strength. Even their descriptions of men in relation to women highlight men's power and control over women. The use of words like protector, supporter, defender of the wife and his children, to describe men attest to this.

The men's views about men have apparently been influenced and molded by the societal norms, tradition, parents, the church, their school, and books they read. They mentioned parents, grandparents, tradition, observation and experiences as bases for their views and perceptions. There were some professionals who mentioned the law and the Family Code as bases.

Men's Emotional Expression

The men expressed that it is still a general perception in the Philippines that "crying among men is a sign of weakness." It is for this reason they said, that many men still try to control their emotions even when they are in great sorrow. Even if they hurt, they tend to hold back their tears or just cry in silence or in private. Most of the men, confessed, however, that they had cried before, and did not feel embarrassed about it. For them "it is all right for men to cry," when necessary. According to them, crying releases tension and strong emotions, such as happiness, sorrow, repentance, or loneliness. They acknowledged feeling good and relived after crying. Among the instances or situations which had made them cry were: death in the family, anger, homesickness, and extreme joy.

On Causes and Consequences of Family Conflicts

The men perceived that domestic conflicts are common and normal (natural) occurrences in every family. "*Natural lang na sa mag-asawa nga away away,* " said the participants. Another said that, " *Indi gid ya malikawan and paginaway sang mag-asawa*" (This cannot be avoided). They stressed, however that quarrels/conflicts are not necessary and should be avoided. The men admitted that minor conflicts can lead to violence when no one gives in, or admits a wrongdoing.

They recognize the fact that they play a greater role than their wives in conflict resolution. This is the reason why most of the time the husbands initiate reconciliation. After asking for forgiveness, they try to win back their wives by doing something to please or appease them, cooking a nice meal.

The men admitted that most husbands and wives resolve their own conflicts because they have no where or no one to go to. Even when serious conflicts occur, they still prefer to settle the problem themselves because they are not sure how others would react to their problems. Some expressed apprehension that others might interfere and make matters worse. A few have tried to approach a relative to mediate.

Men's Needs and Plans for Behavior Change

The men believed that even men can change and many in fact, wish to change, even self-confessed wife-beaters. The desire to change was more pronounced among those emotionally affected by their violent acts. They believe that if someone can listen to them, analyze their problem and provide help, change can be achieved. This shows that even violent individuals have feelings and have tendencies to be good.

Conclusions and Implications

The findings of this study indicate that men's actions and behavior as well as the women's reactions to violence are influenced by their beliefs, cultural orientation, experiences and environment. Men exposed to violent home atmospheres early in their lives have greater chances to be violent than those who had more wholesome environments.

Even though violent men tend to justify their violent acts, many of them are also sensitive to the consequences of their actions, especially to their children and spouses. They get hurt when they see them suffer. This fact implies that they can change. In response, agencies and/or institutions responsible for the welfare of the family can design and implement potential viable remedies to assist them to change and consequently reduce the occurrence of domestic violence.

The domestic violence phenomenon cuts across different cultures, ages, and socioeconomic groups. It is observed and experienced by the young and the old, those in the rural and those in the urban areas, by both the working and the non-working individuals. Even the form and extent of violence are common to different cultures or societies. Reactions toward the victims or perpetrators, and to domestic

violence in general, however, vary depending on the victims' and perpetrators' background and experiences.

The most effective means of protecting victims of domestic violence is by preventing the occurrence of violence. Preventive rather than corrective measures against violence must be given attention. Since facilities and services for the protection of women and children from violence are already in place, efforts to address the needs of the perpetrators should be initiated.

`Men's acceptance of a power sharing arrangement can only be instilled through an effective training or educational intervention. Advocacy efforts may be initiated by NGOs to promote men's involvement in intervention efforts to directly or indirectly curb domestic violence and promote the health and welfare of the family, women men and children.

The establishment of a social support system that will cater not only to the needs of victims of domestic violence, but also of perpetrators who want to change will be beneficial to families.

References

Bureau of Family and Community Welfare of the Department of Social Welfare and Development. "A Baseline Study on Domestic Violence in the Philippines" (n.d.).

David, Fely P., Elma S. Herradura and Fely P. Chin. 1998. "Domestic violence among married women of reproductive age in Western Visayas." In Economic and Psychosocial Influences of Family Planning in the Lives of Women in Western Visayas. Elizabeth Gould and Nancy Williamson, eds. Iloilo City, Philippines.

"Domestic violence, strategies for action." Model Program: Human Rights/Status of Women. Soroptimist International.

Dutton, D. 1998. The domestic assault of women: Psychological and criminal justice perspectives. Boston: Allyn and Bacon. 1998

El-Bushra, Judy and Eugenia Piza Lopez. 1993. "Gender-related violence: It's scope and relevance. In Focus on Gender. Vol. 1, No. 2.

Feliciano, M. 1997. " A review of Philippine laws related to family violence." In Breaking the Silence: The Realities of Family Violence in the Philippines and Recommendations for Change. S. Guerrero and C. Sobritchea, eds. 147-184. Manila: UNICEF.

Liu Z. (1995). "Harmfulness and causes of domestic violence against women." Unpublished. Presented at the 4th World Conference on Women, NGO Forum on Combating and Eliminating Violence Against Women. Beijing, China.

Malhorta, A. and M. Mather. (1994) "Women's Domestic Power: The Importance of Life Course History and the Marriage System in Sri Lanka." Unpublished. Presented at the Annual Meeting of the Population Association of America, Miami, Florida.

Wayne County. (n.d). Domestic violence handbook. Safe Behind Closed Doors. Wayne County Coordinating Council to Prevent Domestic Violence.

ADMISSION GRADES AND COLLEGE PERFORMANCE AS DETERMINANTS OF BOARD EXAMINATION RATINGS OF 1996 BSN GRADUATES IN SELECTED NURSING SCHOOLS IN ILOILO CITY

Fe Mercedes F. Pison

Abstract: *The study aimed to determined whether there is a relationship between board performance and admission grades, college performance and other selected factors. The graduates' college performance and board rating did not vary significantly according to residence, type of high school graduated from, high school general average (HSGA) and academic ranking, College performance did not also vary according to sex, but the male graduates, performed better in the board exam than their female counterparts. A significant positive correlation between NAT SA scores and board rating was noted. HSGA was found to be a good determinant of college performance, but not of board performance.*

Introduction

The Problem

With strict admission requirements, such as Nursing Aptitude Test (NAT) scores of 70 percent and above, and an upper 40 percent ranking in high school, plus the provision of adequate up-to-date training, proper supervision, guidance and motivation, nursing graduates are expected to perform well in the board examination. It has been observed, however, that board performance rating has been deteriorating in the past years, despite strict procedures in screening nursing applicants. The unsatisfactory performance of the nursing graduates in the board examinations has been attributed to many factors, among them admission requirements.

Objectives of the Study

The study was conducted to find out the whether there is a significant relationship selected admission requirements, such as admission grades, college performance and board performance of the BSN graduates of 1996. The study also determined the relationship between selected

factors such as sex, location of residence and type of high school graduated and board performance. Furthermore, the study determined the predictive ability of admission grades and college achievement on board performance of the BSN graduates of 1996.

Theoretical and Conceptual Framework

Rogers proposes that the environment plays a major role in the development of an individual. Nursing students trained in an environment that encourages and facilitates learning are expected to perform better than those trained in less conducive environments. It is also assumed that learning and experiences gained by a person in the past can contribute to how he learns in the future. A good performance in high school, in the aptitude tests and in college may be good preparations for board performance. The diagram below illustrates the assumed links of the study variables.

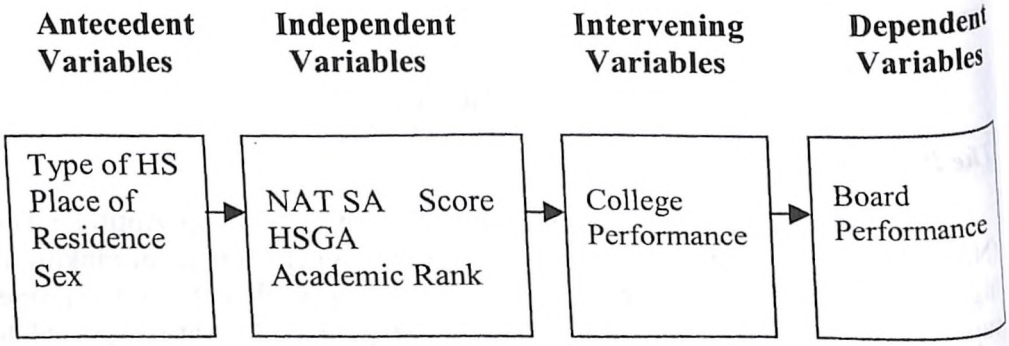


Figure 1. Assumed Flow of Relationship between Variables.

Hypotheses

1. The higher the NAT SA scores, HSGA, and high school academic ranking, the higher the academic performance of the graduates.
2. The higher the grades in college of the nursing graduates, the higher their board examination rating.

3. Admission grades (NAT SA scores, HSGA, high school academic ranking) are significantly related to board rating even when college performance is controlled.

4. Admission grades (NAT SA scores, HSGA, high school academic ranking) and college performance are significant determinants of board examination performance.

Methodology

This is a descriptive-correlational study. The respondents were 207 BSN graduates of three colleges of nursing in the City of Iloilo in March 1996 and took the Nurses' Board examination for the first time in April and November, 1996. Data for this study were taken from the offices of the registrars and deans of the schools. Permission to collect and use the data was sought from the school administrators.

The data were processed and analyzed using the SPSS software. For the descriptive analysis, frequency distribution and the mean were the main statistical tools used. For the analysis of correlation between variables, Pearson Product Moment Correlation ® was used in most cases.

Major Findings

Characteristics of the Respondents

The 1996 BSN graduates of the three schools studied were mostly female (86.0 %). Almost one-third (32.4 %) of them reside in Iloilo City, another third live in the town proper of municipalities in Iloilo Province, while the rest live outside the town proper (Table 1). Slight more than half of them went to a public high schools (56.5 %), while the rest attended private high schools Table 1).

Table 1. Sex, Residence and Type of High School Graduated from of the Nursing Graduates

Indicators	Number (N=207)	Percent
Sex:		
Male	29	14.01
Female	178	85.99
Residence		
City	67	32.37
Town Proper	66	31.88
Outside Town Proper	74	35.75
Type of High School Graduated From		
Public HS	117	56.52
Private HS	90	43.48

The graduates obtained an average NAT score of 557, a high scho general average of 85 percent, an average college grade 82 percent and a average board rating of 75 percent (Table 2).

The graduates' college performance did not vary significantl according to sex, residence and type of high school graduated, HSG an academic ranking. In the board examination, however, the male nursin graduates performed significantly better that their female counterparts. O the other hand, the graduates' residence and type of high school graduate from did not significantly

Table 2. Graduates' Mean Ratings in Admission Test, High Scho General Average, College Performance and Board Performance

Variables	Mean (N=207)
NAT SA	557
HSGA	85
College Performance	82
Board Performance	75

Variation in College Performance and Board Rating According to Sex, Residence, Type of High School

The college performance of nursing graduates did not significantly vary according to their sex, residence and type of high school graduate from. The board performance of the graduates, however, was found to vary according to the respondents' sex, but not according to the students type of high school graduated from, and residence.

The male graduates performed better in college that their female counterparts. The type of high school graduated from a and residence did not significantly influenced in their performance in the board.

Correlation Analysis

The data show that high school general average and NAT SA scores are significantly correlated with college performance (r=.318 and r=.169, respectively). The positive correlations between the two pairs of variable which was significant at .05 percent level means that the higher the high school general average and the NAT SA scores of the graduates, the higher their grades in college.

The correlation analysis also showed a significant positive correlation between NAT SA scores and board rating (r=.344). The graduates' board rating tended to increase as their scores in the NAT SA increased. The graduates who performed well in the NAT SA also performed well in the board examination (Table 3).

High school general average, however, is not significantly correlated with board rating (r=139). This suggests that high school general average does not have a significant bearing on board performance.

The data further show that academic ranking in high school is not significantly correlated with college performance (r=.003), however, it was significantly correlated with board performance (r=.160). The Pearson r value, however, indicates that the degree of correlation between the two variables is negligible. The positive correlation means that students belonging to the upper 40 percent of their high school class tended to

perform better in the board examination than those who belonged to lowe 60 percent.

The graduates who performed well in college also tended to perform well in the board examination (r=.436).

Table 3. Correlation Coefficient Between Admission Requirements and College Performance and Board Rating

Variables	College Performance	Board Performance
NAT SA	0.318*	0.344*
HSGA	0.169*	0.135ns
College Performance	1.000	0.436*
Academic Ranking	0.003ns	0.160*

*Significant at 0.05 level ns Not significant at 0.05 level

Relationship Between Admission Requirement and Board Rating, Controlling for College Performance

NAT SA remained to be significantly related to high school general average and academic ranking when college performance was controlled. However, its relationship to board performance vanished when college performance was controlled. Table 4 shows that the low positive, but insignificant relationship between HSGA and board performance remained insignificant, but became negligible and negative when college performance was controlled. These findings suggest that the relationship between high school general average and academic ranking is pretty stable, but the connection between high school general average and board performance is spurious.

Table 4. Relationship Between Admission Requirement and Board Rating, Controlling for College Performance

Variables	NAT SA	HSGA	Board Performance	Academic Ranking
NAT SA	1.000	0.241*	0.069ns	-0.179*
HSGA	0.241*	1.000	-0.046 ns	0.045 ns
Board Performance	0.069ns	-0.046ns	1.000	-0.195ns
Academic Ranking	-0.179*	0.045 ns	-0.195*	1.000

*Significant at .05 level ns – not significant at .05 level

The result of the regression analysis shown in Table 5 shows that HSGA and NAT SA are significant determinants of college performance. The coefficients were as indicated by Coefficient Bs which are significant at .05 level.

Table 5. Results of the Multiple Regression of the Three Independent Variables on College Performance as Measured by the CGA for the 3rd and 4th Year Combined

Variable	**Coefficient B**	**t-value**	**Significance**
NATSA	0.008531	4.814	0.0000*
HSGA	0.085289	2.537	0.0119*
Academic Rank	0.096143	0.321	0.7486ns
Constant	70.026753	22.813	0.0000

*Significant at 0.05 level
ns Not significant at 0.05 level

On the other hand, NAT SA, high school academic ranking an college performance were found to be significant determinants of boar performance of BSN graduates (Table 5).

Table 6. Results of the Multiple Regression of the Three Independent Variables and Intervening Variable on the Board Performance as Measured by the Board Performance Ratings

Variable	Coefficient B	t-valueT	Significance
College Performance	1.127264	5.474	0.0000
NAT SA	0.020549	3.744	0.0002
HSGA	0.067138	0.670	0.5035
Academic Rank	-2.341111	-2.660	0.0084
Constant	-30.676430	-1.804	0.0727

Conclusions

Based on the findings of the study, the following conclusions ar drawn.

1. Sex, residence and type of high school graduated, HSGA and academic ranking do not significantly influence the graduates performance.

2. The graduates college performance did not vary significantly according to any of the independent variables considered. The male students performance as well as the female students. It did not also vary according to the students residence and type of high school graduated from.

3. In the board performance, male BSN graduates performed better than their female counterparts. Residence, type of high school graduated and HSGA do not significantly influence the graduates' board performance.

4. Board performance rating is significantly related to NAT SA and high school academic ranking.

5. College performance is significantly related to NAT SA and HSGA.

6. Board performance is significantly related with college performance. The higher the college performance, the higher their board performance.

7. When college performance is controlled, NAT SA and academic ranking still significantly influenced board performance.

8. NAT SA and HSGA are significant predictors of college performance.

9. NAT SA, high school academic ranking and college performance are significant predictors of board performance of BSN graduates of 1996.

Recommendations

1. The College Committee on Admissions should consider the student's over-all average in fourth year and NAT SA as the important criteria in screening candidates for admission to the College of Nursing. The former reflects the overall performance of the candidate and the latter the results of the scores in a standardized entrance examinations.

2. The NAT SA and HSGA should be given higher percentage requirement since they reflect college performance.

3. Academic ranking should be considered another priority since it reflects board performance.

5. This could be further utilized as another screening procedure in order to select the cream of the crop.

References

Ayers, Jerry B. 1988. "Another Look of the Concurrent and Predictive Validity of the National Teachers Association". The Journal of Educational Research. January/February 1988 Vol. 81, No. 3, p.136

Boyle, Kathleen Klusnik. May 1996 "Predicting the Success of Minority Students in a Baccalaureate Nursing Program." Journal of Nursing Education. 85: 186.

Cuevas, Teresita L. 1988-1995. Assessment of the Performance of Graduates of Selected Aspects of Competency-based BSN Curriculum. UPCN Research Bulletin.

Fernandez, Remedios L. October 1993. "Empowerment: The Key Factor to Curriculum Development in Nursing". Philippine Journal of Nursing Education. Vol. 3 No. 1.

Foti, I. and De Young S. March-April 1991. Predicting Success in the National Council Licensure Examination - Registered Nurse another Piece of Puzzle. Journal of Professional Nursing. 7(2): 99-104.

Rosa, Praxedes de la and Barcelo, Teresita I. Five Year Performance Profile of School in the Various Licensure examination 1990-1994. UPCN.Research Bulletin 1988-1995. Issue No.3 (n.p., n.d.).

Saludar, Milburga D. January-March 1993. Evaluation of the Performance of Colleges of Nursing in the Philippines. Philippine Journal of Nursing. Vol. 63, no. 1.

Warner, Brainne. Gender Affects Intelligence. Education and Intelligence.

Hojilla, Candelaria et. al. 1996. The Relationship of NAT and Grade Point Average in the Level of Academic Performance among BSN Students of Iloilo Doctors' College,1994-1996: Research Work Iloilo Doctors' College.

The Relationship between Hygienic Practices and Occurrence of Asymptomatic Bacteriuria in Female Freshmen Students of Riverside College, Bacolod City

Joy Octaviano-Gayoles

Abstract: ***This study was conducted to determine whether a significant association exists between hygienic practices and occurrence of Asymptomatic Bacteriuria among female freshmen students. The study revealed that the students have limited knowledge about UTI, but they have good hygienic practices. One in five of the students tested positive for UTI. No significant relationship was found between the students' hygienic practices and occurrence of Asymptomatic Bacteriuria in female freshmen students. No significant association was also found between students' level of knowledge about UTI and their hygienic practices.***

Introduction

Background of the Study

Millions of Filipinos are affected by urinary tract infection (UTI). In Bacolod City, the Department of Health reported that in 1998 the mortality rate of urinary tract and kidney related diseases ranked seventh (7^{th}) in the top ten list. In the mid 1950's UTI was already considered to be an important contributor to chronic renal failure, hypertension and toxemia of pregnancy. Thus, asymptomatic bacteriuria was considered potentially harmful. (New England Journal of Medicine, 2000).

Visible and invisible physiological changes take place during puberty. Among these are hormonal changes. These changes make this group age a risk for UTI. This is the period where sexual changes occur and sexual activity starts.

To prevent UTI, hygiene is important due to hormonal changes that cause the increase of discharges. Early detection of UTI can prevent kidney damage and further complications. If diagnosed early, treatment

could be instituted, but if asymptomatic, it cannot be treated, unless determined by laboratory examinations.

One of the precautionary measures recommended to prevent UTI is proper hygiene. It is believe that when one practices proper hygiene, she will be less exposed to bacteria and less prone to infection. Data supporting this assumption, however, are still limited, thus this study.

Objectives of the Study

This study was conducted to determine the relationship between the knowledge about UTI and hygienic practices, and between hygienic practices and occurrence of asymptomatic bacteriuria among female freshmen at Riverside College, Bacolod City of school year 1998-1999.

Specifically, the study aim to determine:

1. the students' level of knowledge about Urinary Tract Infection (UTI) and asymptomatic bacteriuria, their medical history related to UTI, their hygienic practices in terms of bathing, clothing, grooming and toileting and their experience with asymptomatic bacteriuria,

2. whether there is a significant relationship between the students' level of knowledge about UTI and their hygienic practices,

3. whether there is a relationship between the students' past experience with UTI and their hygienic practices, and

4. whether there is a significant relationship between hygienic practices and experience with asymptomatic bacteriuria.

Hypotheses

1. There is a significant relationship between students' knowledge about UTI and their hygienic practices,

2. There is a significant relationship between past medical history and the students' hygienic practices,

3. There is a significant relationship between hygienic practices and occurrence of asymptomatic bacteriuria.

Methodology

This descriptive-correlational study made use of the survey method and microscopic analysis of the urine specimen submitted by the respondents. A questionnaire was administered to 133 randomly selected female freshmen students of Riverside College, Bacolod City to collect information on the students' hygienic practices and their experiences with asymptomatic bacteriuria.

Permission to conduct the study was obtained from the President of the College. The questionnaires were administered simultaneously. The students were assured of the confidentiality of the information they provided.

For the urine analysis, each of the sample student was given a vial for their urine specimen collection. They were instructed to obtain a midstream clean catch specimen of their urine and fill the vial with the specimen. The vial must be at least three fourths (3/4) full and must be submitted to the school laboratory for analysis within the hour of collection of the urine sample.

Findings and Discussions

Students' Knowledge about Causes of UTI.

The majority of the 133 first year studied knew that "burning sensation during urination is one sign of UTI" (80.5 percent), "UTI is curable by medication" (75.2 percent), "drinking water can help cure UTI " (66.9 percent), and "that UTI occur more among female than among male individuals" (60.0 percent). Less than half of the respondents, however, knew that "organism causing UTI comes from the digestive

system" (21.8 percent), "cloudy urine means UTI", (29.3 percent), "UTI occurs more in pregnant women and those sexually active (31.6 percent), and "wearing pantyhose and tight fitting jeans predisposes one to UTI" (32.3 percent). The data indicate that even the nursing student still lack information about some causes of UTI.

On the whole, the respondents obtained a mean score of 5.2 which is equivalent to "average knowledge." This indicates that the students are only fairly knowledgeable about UTI, which means that they still have a lot to learn about the causes and symptoms of UTI.

Table 1. Distribution of Respondents According to Knowledge About UTI

Information they knew about UTI	**f**	**%**
UTI occurs more in females than in males.	80	60.1
Burning sensation during urination is one sign of UTI.	107	80.5
Causative organism of UTI comes from our digestive system.	29	21.8
Cloudy urine specimen does not necessarily mean UTI.	39	29.3
Sitting on hot benches does not predisposes one to UTI.	71	53.4
Drinking lots of fluids can cure UTI.	89	66.9
Once you had UTI, you can have it again	86	64.7
UTI is curable by medication.	100	75.2
UTI occurs more in pregnant women and those sexually active.	42	31.6
Wearing pantyhose and tight fitting jeans may lead to UTI.	43	32.3
Level of Knowledge about UTI (based on Correct Answers)		
Low (0 – 2)	**11**	**8.3**
Average (3 – 5)	**57**	**42.9**
Above Average (6 – 8)	**61**	**45.9**
High (9 – 10)	**4**	**3.0**
TOTAL	**133**	**100.0**
Mean knowledge score = 5.1729		

Previous Experience with UTI

Eleven of the 133 respondents had experienced signs and symptoms of UTI, the most common of which was frequency of urination, followed by difficulty in initiating urination (6). Five reported experiencing pain during urination, while three reported pain after urination.

One of five students (20 %) of the 133 students had visited a physician for UTI consultation. The rest did not . It will be noted that the proportion of students who visited a physician for UTI consultation is greater than the proportion of those who reported that they had experienced UTI. It appears that some of those who consulted a doctor for UTI treatment experienced had findings other than those mentioned earlier. This is possible because, some symptoms of UTI are similar to symptoms of other related illnesses.

Table 2. Distribution of Respondents According to Previous Experience of Signs and Symptoms of UTI

Experienced with Signs & Symptoms of UTI	f (n=133)	%
Experienced Symptoms	**11**	**8.3**
Symptoms Experienced (Multiple Response)		
Difficulty in initiating urination	**6**	
Pain during urination	**3**	
Pain after urination	**5**	
Increased frequency of urination	**11**	
Visited doctor for UTI consultation	**27**	**20.0**

Hygienic Practices

The students' level of hygienic practices is represented by the mean score from the scores for bathing, toileting, grooming and clothing

practices of the respondents. Their overall mean scores were categorized into "very good", "good", "fair", and "poor." The results show that most of the respondents had "good" practices in bathing (81.2 %), toileting (82.7 %), clothing (57.9 %) and grooming (50.4 %). On the whole, therefore, the students had "good hygienic practices. Except in clothing practices, less than 20 % percent of the students had "very good" hygienic practices.

Table 3. Distribution of Respondents According to their Hygienic Practices

Level of Practices	Category of Hygienic Practices							
	Toileting		Bathing		Clothing		Grooming	
	f	%	f	%	f	%	f	%
Poor	0	0	0	0	1	0.8	14	10.5
Fair	6	4.5	7	5.3	22	16.5	46	34.6
Good	110	82.7	108	81.2	77	57.9	67	50.4
Very Good	17	12.9	18	13.5	33	24.8	6	4.5
TOTAL	133	100.0	133	100.0	133	100	133	100.0

Incidence of Asymptomatic Bacteriuria

Students' experience with asymptomatic bacteriuria was determined by urine examination. The urinalysis results revealed that of the 133 respondents who submitted urine samples one in five (21 %) were positive of asymptomatic bacteriuria.

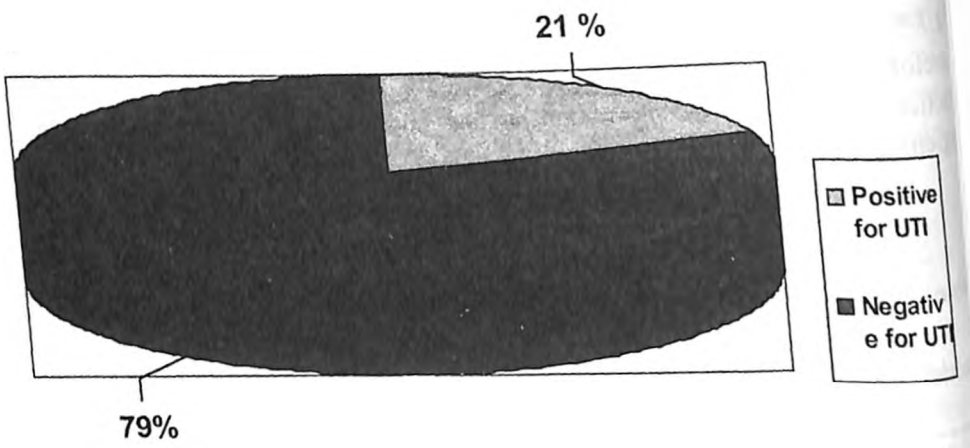


Fig. 1 Incidence of Asymptomatic Bacteriuria Based on Urinalysis Results

Students' Knowledge about UTI and Hygienic Practices

The results of the analysis for relationship between students' knowledge about UTI and their hygienic practices show that irrespective of the students' level of knowledge about UTI, the majority have "good" overall hygienic practices (Low=81.8 %, average = 84.2 % above average = 86.9 % and high =100 percent). The distribution indicates no pattern of association between the two variables. This is affirmed by a Gamma coefficient of 0.177, which is not significant at percent level. The data do not support the hypothesis therefore that knowledge about UTI is significantly associated with hygienic practices. This means that knowledge about UTI has no significant bearing on hygienic practices.

Table 4. Distribution of Respondents According to Knowledge About Urinary Tract Infection and Overall Hygienic Practices

Overall Hygienic Practices	Knowledge							
	Low		Average		Above Average		High	
	f	%	f	%	f	%	F	%
Fair	0	0	1	1.8	1	1.6	0	0
Good	9	81.8	48	84.2	53	86.9	4	100.0
Very Good	2	18.2	8	14.0	7	11.5	0	0
Total	11	100.0	57	100.0	61	100.0	4	100.0

Gamma = -0.17773 not significant at 0.05 level

In relation to the specific indicators of hygienic practices, the students' level of knowledge about UTI was found to be associated in various degrees. The highest degree of association was registered in relations to bathing practices (G=.484), followed by clothing practices (G=.359), then grooming practices (.204). The extent of relationship between knowledge and toileting practices (G=.070) is almost nil. A significant result was registered only between knowledge and clothing practices and between level of knowledge and bathing practices. The data imply that the more the students know about UTI, the better their clothing and bathing practices. However, irrespective of how much they know about UTI, the students' toileting and grooming practices are still "good."

Table 3. Relationship Between Knowledge about UTI and Hygienic Practices

Hygienic Practices	**Gamma Coefficient**	**Significance**
Clothing	0.359	Significant
Toileting	0.070	Not significant
Bathing	0.484	Significant
Grooming	0.204	Not significant

Past Experience With UTI and Hygienic Practices

Someone with a history of UTI is expected to be more careful and conscious with her hygienic practices because she does not want to get infected again. This assumption, however is not supported by the results of the survey. Table 3 shows that there is no significant association between past experience with UTI and each of the indicators of hygienic practice. The Cramers' V values were 0.0878 for toileting,, 0.1077 for grooming, , 0.2374 for bathing, to 0.3708 for clothing. The values indicate low but significant association between past experience with UTI and clothing practices and bathing practices.

Table 3. Relationship Between Past Experience with UTI and Hygienic Practices

Hygienic Practices	Cramers' V	Significance
Clothing	0.3708	Significant
Toileting	0.0878	Not significant
Bathing	0.2374	Significant
Grooming	0.1077	Not significant

Hygienic Practices and Occurrence of Asymptomatic Bacteriuria

On the whole, the majority of the students, irrespective of their hygienic practices tested negative of asymptomatic bacteriuria. Although higher percentage of positive results was noted for those who had fair hygienic practices (50 %) than those with "good" (21.1 %) and "very good" (17.7 %), practices, the variation in proportions was negligible. The Cramers' V test of association, likewise did not yield a significant result (.007). This means that among the first year students, hygienic practices is not associated with occurrence of asymptomatic bacteriuria. The absence of relationship between the two variables may be explained by the fact that in general the students had "good" hygienic practices.

Table 6. Distribution of Respondents According to Overall Hygienic Practices and Occurrence of Asymptomatic Bacteriuria

Occurrence of Asymptomatic Bacteriuria	OVERALL HYGIENIC PRACTICES							
	Fair		Good		Very Good		Total	
	f	%	f	%	f	%	F	%
Positive	1	50.00	24	21.05	3	17.65	28	21.05
Negative	1	50.00	90	78.95	14	82.35	105	78.95
Total	2	100	114	100	17	100	133	100

Cramer's V = 0.09205, not significant at 0.05 level

The absence of association between overall hygienic practic and occurrence of asymptomatic bacteriuria is also reflected in t results of analysis for association between each of the four indicators hygienic practices and occurrence of asymptomatic bacteriuria. Table shows that a small degree of association between clothing practices a occurrence of Asymptomatic Bacteriuria was present, however t Cramers' V tests for association between the two variables did not yie statistically significant values. This means that clothing practices do not have a significant bearing on occurrence of Asymptoma Bacteriuria. Between each of the three other indicators of hygier practices and the dependent variable, the degree of association is almo nil.

Table 3. Cramers' V Values for Test of Association Between Hygienic Practices and Occurrence of Asymptomatic Bacteriu

Hygienic Practices	Cramers' V Value	Significance
Clothing	0.3221	Not significant
Toileting	0.0633	Not significant
Bathing	0.1049	Not significant
Grooming	0.1217	Not significant

Conclusions

In general the female college freshmen students of Riverside College have "good hygienic practices, despite the fact that they have limited knowledge about urinary tract infection and asymptomatic bacteriuria. Although the data show that an increase in knowledge about UTI tended to improve practices, the relationship between the variables did not reach a significant level. It could not be concluded, therefore, that knowledge about UTI can lead to improved hygienic practices

The hygienic practices in terms of bathing, toileting, clothing and grooming of the female freshmen students were good, however, the students have specific hygienic practices that must still be corrected, such as the wearing of tight pants, wearing of stockings inside pants and the use of scented panty shield and sanitary napkins. The student apparently need further educational enrichment and updating in personal hygiene and UTI.

The small degree but statistically insignificant relationship between hygienic practices and occurrence of Asymptomatic Bacteriuria among the female freshmen students of Riverside College indicate that UTI infection is slightly influenced by hygienic practices, however, there may be other more important factors than hygienic practices of students which may have caused the infection.

The fact that one in five of the female students tested positive of UTI indicates that female adolescents are prone to this type of infection. The fact, however, that they did not manifest symptoms of infection imply that they may not have been able to seek treatment for their infection. If their condition is not treated, they could be exposed to more risk of further infection and possible other health complications.

Recommendations

The hygienic practices of the female students and their knowledge about urinary tract infection still need a lot of improvement. The school can be an effective venue for further health education. Topics on this concern can be incorporated in health related courses, not only in college, but as early as elementary level, because at this stage some girls

already experience onset of menarche. The training need to be reinforced in high school because this is the period when most girls enter adolescence and they experience many physiological changes than can affect their health and behavior.

The students should be encouraged to attend lectures, and participate in activities, such us updates, seminars and other enriching Related Learning Experience (RLE) to equip them with knowledge to educate their own clients in the future.

The Department of Health (DOH) must put emphasis on the importance of hygiene in health promotion and disease prevention, especially among young women. DOH must include in their information dissemination campaign and in their UTI Prevention Program adequate information about proper hygiene and its important role in UTI prevention.

For accurate and conclusive results or the presence of asymptomatic bacteriuria, a urine culture for specific identification of the causative organism is recommended. Future studies on hygienic practices must use improved measures and instrument to obtain a more accurate information.

Future studies on hygienic practices and UTI must include other groups of women, such as working and home-based women. Stratification of the research participants can be done to find out whether practices and incidence and degree of infection vary across different specific groups of women.

REFERENCES

Abrulyn, Elias, et. al. 1994. Does asymptomatic bacteriuria predict mortality and does antimicrobial treatment reduce mortality in elderly ambulatory women? Annuals of Internal Medicine 120, No. 10.

Cardiff-Oxford Bacteriuria study group: sequelae of covert bacteriuria in schoolgirls. A four-year follow-Up study. 1978 Lancet 1, 889-893

Hooton, Thomas, et. al. 2000. A Prospective study of Asymptomatic Bacteriuria in sexually active young women. The New England Journal of Medicine 343, No. 14, 992-997

Kumar, V and S. Kirti 1980. Aymptomatic bacteriuria among women using Oral Contraceptives.Clinician, 9, 402-6

Kunin, C.M. et. al. 1962. Prevalence of bacteriuria and associated urologic findings. New England Journal of Medicine

Kunin, C.M. 1979 Urinary tract infection and Pyelonephritis. Cecil Textbook of Medicine, 15th ed. Vol 2 Phladelphia, Pennsylvania, W.B. Saunders, 1409-13

Mulholland, S. G. (1990). Managing Recurrent UTI. Department of Urology, Thomas Jefferson University Medical College , 79-84

New Castle Asymptomatic Bacteriuria Research Group: Asymptomatic bacteriuria in school children in New Castle. 1975. Archdigest Dis Child ,50, 90 - 102

Nicolle, Lindsay. 2000. Asymptomatic bacteriuria – important or not? The New England Journal of Medicine 343 No. 14 ,1037-1039

Santiago, Nestor, et. al. 1980. Covert bacteriuria in Filipino female. Philippine Journal Internal Medicine, 18, 115 - 119

Sussman, et.al 1969. The clinical significance of asymptomatic bacteriuria in the non-pregnant women. Journal of Infectious Diseases, 120 (1):17-26

MEN'S KNOWLEDGE, APPROVAL AND INTERSPOUSAL COMMUNICATION ON FAMILY PLANNING AS CORRELATES OF THEIR PARTICIPATION IN REPRODUCTIVE DECISION MAKING

Carolyn Lopez-Yoro

Abstract: *This study involved personal interview of 320 married men to determine their knowledge about family planning (FP), approval of FP, interspousal communication, and number of children ever born, and the relationship of these factors to men's participation in reproductive decision-making. The data showed that the men were knowledgeable about FP, but many still have misconceptions about it. Most of them approved of FP use and they discussed FP concerns with their spouses, but rarely. Number of children was found to be significantly associated with interspousal communication and participation in reproductive decision-making. Decision-making participation was significantly correlated with men's knowledge about FP, FP approval, and interspousal communication.*

Introduction

Traditionally, Family Planning (FP) programs are focused on women as the primary beneficiaries of services. Men have always taken the backseat in most FP endeavors. Likewise, most FP studies are centered on women only. Although the need for shared responsibility in reproductive decisions and the importance of male involvement in FP programs have long been recognized, men's involvement in FP programs still leaves much to be desired.

Filipino men are known to be the dominant decision makers in the family, however, their actual role in making reproductive decisions is not yet well documented. It would be interesting to know about men's knowledge about FP, approval of FP and their interspousal communication are related to men's participation in reproductive motivation and family size preferences. There is a need for programs targeting men which are designed to change their attitude on population matters and motivate them and their wives to produce smaller families. It is hoped that this study can elicit data helpful in designing programs for improving male participation/involvement in FP.

Objectives of the Study

This study aimed to determine men's knowledge about FP, approval of FP, interspousal communication, and number of children, and to determine whether these factors are related to their participation in reproductive decision making. It also determined if the relationship between men's participation in reproductive decision making and knowledge about FP, approval of FP and extent of interspousal communication is affected when number of children is controlled.

Theoretical and Conceptual Framework

Parson's Theory of Action (Parson, 1937) served as the framework of this study. The theory points out the importance of the individual "orientational scheme," such as cognitive modes of orientation, value orientation, cultural orientation, and communication in achieving/ attainment of goal. Men's different modes of orientation is assumed to influence their response to FP endeavors. Their knowledge about FP which they may have gained mass media, seminars/lectures, and interaction with others may affect their attitudes and eventually their participation in reproductive decision-making. If they have favorable attitudes towards FP, they can openly talk about it with their wives and together they can make responsible reproductive decisions. This sharing may lead improve fertility goals. Figure 1 presents the assumed flow of relationships among variables of the study.

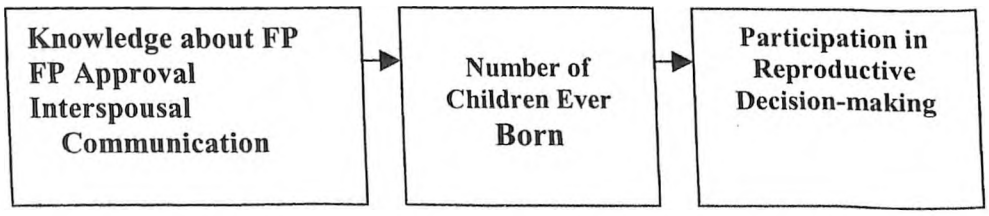


Figure 1. Assumed Flow of Relationship Among the Major Variables

which is lower than the 1997 Region VI poverty threshold of P10,560. Nearly half of them (49.38 %) reported a monthly income of P2,500 or below (Table 1).

Table 1. Distribution of Respondents According to Certain Characteristics

Characteristics	Number	%
Mean Age=	**37.29**	
Religion		
Roman Catholic	297	92.8
Non-Roman Catholic	23	7.2
Total	320	100.00
Educational Attainment		
Elementary or lower	83	25.9
High School/Vocational	132	41.3
College and above	105	32.8
Total	320	100.00
Mean Monthly Income = P3,766.00		

Men's Knowledge about Family Planning

A big majority of the men were aware of what FP is (80.0 %), where they can avail of FP services (94.4 %) and why couples should practice FP (81.9 %). Table 2 shows that most of the men were also familiar with the female and male-oriented FP methods and those which require surgery (84.40 %, 93.80 %, 95.00 %, respectively). Only a few mentioned side-effects of condom and vasectomy (5.9 % and 4.7 %, respectively), but most knew of the side effects of pills. On the whole, the men had an "average" knowledge about FP.

Information about FP was obtained from varied sources, the most common of which were health professionals (90.94 %).

Table 2. Distribution of Respondents According to Knowledge About Family Planning, and their Sources of FP Information

Items about FP	No. of Respondents with correct answers (n=320)	%
FP Awareness		
What FP is	256	80.0
Where they can avail FP services	302	94.4
Why couples should practice FP	262	81.9
FP Methods		
Male-oriented methods	283	88.4
Female-oriented methods	300	93.8
Methods requiring surgery	304	95.0
Side Effects		
Side effects of condom	19	5.9
Side effects of pills	277	86.6
Side effects of vasectomy	15	4.7
Level of Knowledge	164	51.2
High (9 – 12)	146	45.6
Average (5 – 8)	10	3.1
Low (1 – 4)		
Mean = **8.42**		
Most common source of Information about FP		
Health Professionals (nurses, midwives,	291	90.9

Men's Approval of FP Practice

Most of the men approved of FP practice. Except for 4.4 % who were "neutral" position and 1.6 % who "disapproved" of FP, the rest (94 %) approved of FP practice (47.5 % "strongly approved" and 46.5 % "approved"). The mean FP approval score was 8.35, which is equivalent to "approve" category (Table 2). This observation does not support the common belief that husbands hinder their wives' practice family planning. This suggests that positive attitude towards FP does not necessarily translate to FP practice.

Table 2. Distribution of Men According to Approval of Family Planning

Approval	Number	%
Strongly Approve (9 – 10)	152	47.5
Approve (7 – 8)	149	46.5
Neutral (5 – 6)	14	4.4
Disapprove (3 – 4)	5	1.6
Total	320	100.00
Mean	8.35	

Interspousal Communication About Family Planning

Table 3 shows that four in every five (83.8 %) of the men discussed FP concerns with their wives. Nearly half (46.6 %) engaged in a discussion about FP with their wives only once, the week before the interview, while 48.9 % did it twice. The most common topics discussed by couples pertained to number of children they want to have (47.4%) and the side effects of FP (34.3%). FP methods was a subject talked about by about a quarter (23.1 %) of the men.

Number of Children Ever Born

On the average, the men had 3.7 children ever born. The data show that one in three (35.6 %) had three or four children and about the same proportion (31.6 %) had only one or two. The data reflect the regional and national averages (NSCB, 1998). The number is also consistent with the findings of a provincial study on health indicators (David and Vencer, 1998).

Table 3. Distribution of men According to Interspousal Communication About Family Planning

Interspousal Communication	Number	%
Men Who Discussed FP with spouse:	268	83.75
Frequency of Discussion		
Three times or more		
Two times	12	4.5
Once	131	48.9
	125	46.6
Topics Discussed (Multiple Response):		
FP Methods	62	23.1
Side effects of Contraceptives	92	34.3
Who will practice family planning	28	10.4
Number of children	127	47.4
Number of Children Ever Born		
5 or more	93	29.0
3 - 4	114	35.6
1 - 2	101	31.6
0	12	3.8
Total		
Mean = 3.6		

Men's Participation in Reproductive Decision-Making

A great majority (94.2 %) of the men claimed that they have the most influence in family decisions. Only a few (3.4 %) acknowledged joint husband-wife on family decisions, while only 2.2 % admitted that it is their wife who

has the most influence in the family. The data (Table 4) confirm the general belief that husbands, being the authority in the family are the main decision-maker.

The decision on the number of children was reported by 90.62 % of the respondents as a joint husband-wife endeavor. Abanihe (1994) made the same observation among Nigerian men and women.

Whether or not to practice family is another reproductive matter which was decided jointly by the husband and the wife in Leganes (89.4 %). Only 6.2 % of the men reported that they independently decided on this matter, while 4.4 % reported that it is their wives alone who decided on this. The same pattern was found by David (1996) in her study of participation in decision-making among faculty members in selected educational institutions in Iloilo City..

Table 4. Distribution of Respondents According to Participation In Reproductive Decision-Making

Participation in Decision-Making	Number	%
Who influences family planning decision most?		
Husband only	301	94.1
Wife only	7	2.2
Joint husband and wife	11	3.4
Parents/Relatives	1	0.3
Total	320	100.00
Who decides on the no. of children?		
Husband only	27	8.4
Wife only	3	0.9
Joint husband and wife	290	90.6
Total	320	100.00
Who makes the decision on the use of FP method?		
Husband only	20	6.2
Wife only	14	4.4
Joint husband and wife	286	89.4
Total	320	100.00

Relational Analysis

Number of Children and Knowledge about FP.

The data show that knowledge about FP was not significantly correlated with number of children ever born. The correlation coefficient (r=.09) shows a very negligible relationship between the two variables and did not reach a statistically significant level. This means that men's knowledge about FP has no significant bearing on their number of children. The data fails to support the hypothesis that the more knowledgeable the men are about FP, the fewer their children. This findings confirm the findings of Mbizvo and Adamchak (1991) in Zimbabwe where men's knowledge about FP did not lead them to limit the number of their children.

Number of Children and Men's Approval of FP.

The Pearson's r of -0.09 between number of children and men's approval of FP is negligible and is not significant at .05 level. This means that number of children ever born to couples cannot be attributed to the men's approval of FP. David (1996, p.80) made the same observation among MWRAs in Iloilo. This finding supports Parson's Theory of Action. Even if one strongly approves of FP, if his/her normative orientation encourages only three children, chances are he/she will desire to have only three.

Number of Children Ever Born and Interspousal Communication.

The significant correlation coefficient of r=0.15 between number of children ever born and frequency of interspousal communication on FP indicates that interspousal commu-nication positively influences the number of children couples have. This means that men who discussed FP more often with their wives tended to have fewer children than those who discussed FP less frequently with their wives. This corroborates the findings of Biddlecom (1994) that the more often husband and wives discussed FP and fertility preferences, the more they share similar views on those topics and had lower family size goals. The data also confirm that interspousal communication plays a key role in reproductive health. It was noted however, that discussions between spouses are usually initiated by husbands.

Table 5. Results of Tests of Association between Number of Children and Men's Knowledge about FP, their Approval of FP, Interspousal Communication and Decision-making Participation

Factors Related to No. of Children Ever Born	Test of Correlation/Associatiom
Knowledge about FP	r = 0.09 not significant
Approval of FP	r = 0.09 not significant
Interspousal Communication	r = 0.15 significant at .05 level
Extent of Decision-making Participation	r= 0.12 significant at .05 levelt

Knowledge about FP and Participation in Reproductive Decision-Making.

The Pearson r result for the association test between number of children and participation in reproductive decision-making (0.12) is significant at .05 level. This means that the higher the respondents' level of knowledge about family planning, the more likely that they will participate in reproductive decision-making. These findings sustain to some extent, "Parson's Theory of Action," which states that an individual has a choice of alternatives within the limits of the situation. A high level of knowledge about FP may lead one to get involved in reproductive decision-making. This also supports the finding of a study done in Pakistan that better educated men participated in reproductive decision-making to limit their number of children.

Approval of Family Planning and Participation in Reproductive Decision-Making.

The study also shows a significant association between men's approval of FP and their decision-making participation, the Cramer's V =0.19 being significant at 0.05 level. The married men who approve of family planning practice considered their wives as equal partners in reproductive decision-making and were more likely to make decisions jointly with their spouses.

Interspousal Communication and Men's Participation in Reproductive Decision-Making.

Participation in reproductive decision-making was also found to be significantly associated with inter-spousal communication. This is confirmed by a low but significant Cramer's V value of 0.12. This suggests that participation in

reproductive decision-making is dependent on the degree or frequency of interspousal communication. Roudi and Ashford (1996) reported that 90 % of husbands and 80 % of wives acknowledged that husband have more influence on family decision than wives and men are considered to be the prime decision maker in deciding whether to practice FP or to have another child.

Number of Children and Decision-Making Participation

Decision-making participation was found to be independent of the number of children the couple has. This is indicated by a Cramer's V value of 0.08 which is not significant at .05 level (Table 6). This means that regardless of the number of children ever born in the family, the husband remains actively involved in reproductive decision-making. The data confirm the husband's great influence in reproductive decisions. which was also reported by earlier studies on decision-making patterns (David, 1996; David, Chin and Herradura 1998).

Table 6. Results of Tests of Association Between Men's Participation in Decision-making and their Knowledge about FP, Approval of FP and Interspousal communication

Independent Variables	Association Test Results
Knowledge about FP	Cramer's V = 0.15*
Approval of FP	Cramer's V = 0.19*
Interspousal Communication	Cramer's V = 0.12*
Number of Children ever born	Cramer's V = 0.08 ns

*Significant at .05 level
ns=not significant at .05 level

Conclusions and Recommendations

Married men in the Municipality of Leganes are well informed about FP and the different FP methods, but they still have misconceptions about FP practice. The more knowledgeable about FP the men are, the more involved they are in reproductive decision-making. The men's opinions influenced their wives' decisions.

Men's level of knowledge about FP is not significantly related to their number of children. This fails to support the hypothesis that number of children is dependent on the men's level of FP knowledge. Men who approved of FP practice tended to participate actively in reproductive decision-making. David's (1996) conclusion that Filipino families are more "egalitarian than patriarchal" gains support from this study.

Parson's theory of action finds support in this study. The men's participation in reproductive decision-making and their desired number of children are evidences of their normative orientation. On the other hand, the changes in participation in reproductive decision-making and desired number of children can be possible effects of the social, psychological, and cultural influences that act as barriers to contraceptive practice among men.

Considering the significant findings of the study, program implementers should design more rigid and comprehensive information, education, communication and service delivery activities directed to young married men in the form of seminars, workshops and lectures.

Promotive materials such as leaflets, posters and brochures must be available to both government and non-government clinics for use since these are the most popular sources of information. FP counselors of both government and non-government agencies must involve not only women but also men. The government's pre-marriage counseling programs must include discussions not only on men's and women's marital responsibilities but also responsibilities for parenting and promoting child quality over quantity.

Further research is needed to investigate the relationship between men's approval of specific male methods, such as condom or vasectomy and personal variables as well as fertility variables.

REFERENCES

Abanihe, Uche. May-June, 1994. "Reproductive motivation and family size preferences among Nigerian men." Studies in Family Planning. *Vol. 25, No.3,*

Biddlecom, Ann E., John B. Casterline and Aurora E. Perez. September, 1997. "Spouses' views of contraception in the Philippines." International Family Planning Perspectives. *Vol. 23, No. 3,.*

Karra, Mihira V., Nancy N., Stark, and Joyce Wolf. March, 1997. "Male involvement in family planning: Case study spanning five generations of a South Indian family." Studies in Family Planning. *Vol. 28, No. 1.*

Mbizvo, Michael T., and Donald Adamchak. Jan.-Feb., 1991. "Family planning knowledge, attitudes, and practices of men in Zimbabwe." Studies in Family Planning. *22, 1.*

Mahmood, Naushin, and Karen Ringheim. Sept. 1997. "Knowledge, Ap-proval and Communication About Family Planning as Correlates of Desired Fertility among Spouses in Pakistan. "International Family Planning Perspectives. 23, 3.

Parson, Talcott. 1937. The structure of social action. New York: McGraw-Hill Book, Co.

Roudi, Farzaneh and Lori Ashford. 1996. Men and family planning in Africa. Washington D.C.: Population Reference Bureau