

Research Psychographics of the Nurse Professoriate in a Philippine Comprehensive University

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This two-pronged study seeks to ascertain the research psychographic characteristics of a select group of nurse professoriate ($n=37$) in a comprehensive university in the Philippines. The quantitative part of the study had an adapted survey questionnaire, which profiled the demographic and psychographic characteristics of the respondents. Defining the qualitative aspect of the inquiry was an in-depth interview with five (5) of the respondents chosen purposively to triangulate the data yielded by the questionnaire. Data were treated statistically and interpretively to describe the phenomenon under inquiry. It is interesting to note that while the nurse professoriate had shown a positive attitude towards research, variables such as time constraints, lack of research knowledge, research support structure and motivation hinder them from doing research activities. Implications of the study to reculturing, restructuring and reformulating efforts in research are also discussed.

Key Words: psychographics, nurse professoriate, Philippines

"I often think of being a university president as similar to being the conductor of an orchestra. It's the orchestra that makes the music; it's the orchestra that the audience comes to hear. But the conductor has an important role as well; to help the orchestra

understand how the music really sounds, to guide it, to integrate the sound of the individual musicians."

(Hugo Sonnenschein)

Introduction

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A strong research foundation is perceived as an integral element to the formation of distinct discipline and to the establishment of the profession (Mulhall, 1995). Professionals use the literature to communicate the principles and concepts underlying professional knowledge to members of the profession and also use this literature as a means of educating new members, a tool for continuing education, a source of news relevant to the profession and current awareness to the most recent developments in research and practice (Duffey & O'Neill, 2000). As an integral part of the profession, it offers a wide range of opportunities to develop and test theories.

One of the most important goals of the nursing

profession is the production of an evidence-based body of literature. As a valuable lens in the practice of the profession, research offers an opportunity to explore issues of clinical concern; seeks an avenue for personal advancements; validates traditional practices, or justifies change in the status quo (Morrison, 1998); allows better comprehension of clinical problems and ways of solving or removing these problems (Kenty 2001); and helps the profession in maintaining its credibility and respect (Duffey & O'Neill, 2000).

While nursing has become the most populous among the health professions, it remains to be a minor contributor in the advancement of knowledge frontiers. As one of the building blocks in the promotion of research culture, the nurse educator has a crucial role in encouraging future nurses to become interested in nursing research during their training (Thomas, 1998; Athlin, Björkström, Hamrin, & Johansson, 2003). However, previous studies (see Dennis, 1991; Kyei, 1993; Hicks, 1995; Mulhall, 1995; Tsai, 2000) pointed out that a number of contextual variables relate to the faculty's negative attitudes toward the conduct of research. These variables may be categorized into structural, procedural and personal dimensions. The *structural dimension* refers to the support extended by the administrators and colleagues in facilitating the completion of a research project. The *procedural dimension* encompasses the adoption of codified policy statements that govern the overall research protocol. The *personal dimension* pertains to the richness of exposure to and substantial understanding of the nurse researchers of the research process. Impliedly, the profession has to work hard to change the attitudes of many of its members in order that research in its widest sense is seen to be useful to the profession and the people it cares for (Hicks, 1995). Evidence from the literature suggests that education can be one of the factors in motivating and positively altering the attitudes of nurses towards research (Thomas, 1998). Students are influenced and shaped dramatically by the instructor's teaching style and input. In order to positively influence students of nursing regarding research, teachers themselves, are required to possess research skills and at the same time, to incorporate research into their teaching (Thomas, 1998).

In 1991, a nationwide survey on the state of the quality of Philippine Education was conducted. This study which was spearheaded by the Congressional Commission on Education (EDCOM) noted the proliferation of social demand fields. These fields of study are said to be popular to both parents and students. Among the popular fields are business administration, health-related sciences and engineering. Bernardo (1998) noted that many faculty members do not

have the necessary scholarly competence in research. Such alarming observations invite the need to probe into other factors that underlie the slow research pace in the country.

Though today's universities are challenged by various trends such as quantitative expansion, differences in institutional structures and study programs, and financial restrictions (de Guzman & Torres, 2004), their commitment to the life of the mind through the scholarships of discovery, integration, application, and teaching (Boyer, 1997) remains an imperative. Today, more than ever, there is no greater challenge to the professoriate than the continuing development of the "specialness" of the university (Goldman, 2000:151). With nursing as one of the popular fields in the country and with a number of higher education institutions declared by the Philippine Commission on Higher Education as Centers of Excellence, it is interesting to look at how research as one of the missional triptych of the university is viewed collectively by the nurse professoriate. Specifically, this investigation described the nurse professoriate's attitude toward research relative to (a) feelings on research; (b) perceptions of research; (c) research awareness; (d) research interest; (e) research engagement benefits and payoffs; and (f) resource utilization; and ascertained the degree to which psychographic characteristics of the nurse professoriate relate to their demographic profile.

Method

Study Site and Instrumentation

This study was conducted at one comprehensive university in the Philippines-- a Level II accredited institution and a Center of Excellence (COE) granted by the Commission on Higher Education (CHED). For the purpose of this study, the said university shall be identified as University A.

Quantitative and qualitative approaches to research were employed in order to achieve the purpose of this study. Quantitative data were gathered through questionnaires, while qualitative data were generated from interviews.

The 30-item Attitude Scale-Toward Research (ASTR) originally developed by Noemi S. Catalan (1997) was adapted by the present study. The original instrument which was rated on a 5-point Likert Scale contains 10 items each of cognitive, affective and response tendencies. One half of the items were positively worded, while the other half was negatively formulated. The ASTR was initially pilot-tested on 26 teachers who were convened for the purpose of discussing the

career path of Ph.D. degree holders. As the results of pre-testing disclosed the feasibility of achieving the purpose of the original study conducted in 1997 on “Teachers’ Attitudes towards Research”, the instrument was utilized in 1997 by Catalan with 379 university teacher respondents and by de Jesus in 2000 with 155 teacher respondents. For the purposes of the present study, the modified instrument was divided into the following parts: (1) demographic data of the respondents (2) professional variables (3) understanding and knowledge of research (4) a four-point Likert Nursing Attitude Scale (NAS) constituting the respondents’ research psychographics and (5) technological ability. The modified 4-point Likert Scale was used to avoid central tendency effect (de Guzman, Villuga, Olalia, 2005). Since previous studies which made use of the ASTR did not indicate the reliability index of the instrument, the present study attempted to report the instrument’s reliability index by fielding it to a group of nurse educators and practitioners ($n=29$) enrolled in a graduate education program in one comprehensive university in the capital in the Philippines. Results of Cronbach reliability testing yielded a coefficient of .88.

Although not evident in the Likert scale, the statements are categorized in six parts as follows:

Statements	Areas of Concern
1-7	Are associated with the feelings of nursing faculty towards research
8-14	Are directed at finding the subjects’ perceptions on research
15-17	Are related to finding out the awareness of the faculty of research
18-21	Are concerned with whether the subjects are interested in research
22-25	Try to relate the benefits and payoffs received from research engagement
26-31	Describe resource utilization and availability to the respondents

The sentences were stated positively with a score of one (1) indicating the strongest agreement, and four (4), indicating the least agreement. In this way, low scores would relate to positive attitudes towards research.

The semi-structured interviews were conducted on a select group of nursing faculty, following the six (6) areas covered in the survey questionnaire. The five faculty members were chosen on the basis of their availability for interview at mutually convenient times. Each interview lasted for about

30 minutes and was tape-recorded. The interviewees were allowed to talk as freely as possible about the outlined issues. The interview guide served only as a basic checklist for covering all the relevant topics. Follow-up questions were asked to seek clarification and further details of the factors mentioned. The interviews were done to further support the data gathered from the survey.

Respondents

Sixty-one (61) faculty members handling major courses in nursing were asked to participate in the study. However, only 37 instruments were returned. This represents a 61.66 percent retrieval rate. Respondents were informed about the nature and purpose of the investigation. For the qualitative part of the study, five faculty members were purposively chosen to serve as respondents to a semi-structured interview based on their availability. It should be noted, however, that a typical nurse professoriate in the Philippines renders 40 hours of service covering both teaching and clinical areas.

Ethical Considerations

Permission for the study was obtained from the Dean of the college. Participation was voluntary, confidentiality was guaranteed and informed consent was obtained. To ensure anonymity, no identification was included in the survey.

Data Analysis

All analyses were conducted using SPSS for Windows, Version 14.0. Both descriptive and inferential analyses were performed. With regard to the 4-point attitude scale, negative statements were changed to positive for convenience in interpretation. Data yielded by the questionnaires were treated using various statistical tools, namely: percentage, mean, standard deviation, multiple correlation analysis and regression analysis.

When all interviews were completed, they were transcribed verbatim. Although there were a number of approaches to qualitative data analysis, the approach in this study was to use a form of thematic content. Transcripts from the respondents were analyzed by the researchers and the data were converted into systematic categories. Themes were then extracted as the interviews were reviewed. Clusters of themes were categorized which served as a guide for more subsequent reviews of the transcripts. Specific statements were identified to be used as supportive evidence for significant statistical

data gathered from the survey questionnaires.

Results

Demographic Characteristics of Respondents

The number of completed questionnaire was 37, giving an overall response rate of 61.66%. Demographic characteristics

of the faculty are described in Table 1. As the table indicates, there is a preponderance of female teachers, 29 (78.4%) over their male counterparts, 8 (21.6%). As to their age 23 (62.1%) belong to the 20-30 age group. Twenty (54.1%) of the faculty members were married. Twenty-one (56.76%) of the respondents have bachelor of science in nursing degrees. Majority (75.67%) are currently at the instructor level working on a full-time basis (97.3%) and have been with the university for 0-10 years (75.67%) and have more than 24

Table 1. Demographic Profile of Respondents (n=37)

Profile	Count	%	Profile	Count	%
Gender			Years of teaching		
Female	29	78.4	0-10	28	75.67
Male	8	21.6	11-20	5	13.51
Age			Above 20	4	10.81
20-30	23	62.1	Training and exposure to research		
above 40	9	24.3	Academic	37	64.9
31-40	5	13.5	Professional	14	24.6
Civil Status			done research on my own	6	10.5
Married	20	54.1	Knowledge of research		
Single	17	45.9	good	17	45.9
Highest degree attained			fair	14	37.8
bachelor of science in nursing	21	56.76	very good	4	10.8
Masterate	14	37.84	excellent	2	5.4
Others (RN, MD)	2	5.4	Baccalaureate		
Academic rank			with	37	100
Instructor	28	75.67	without	0	0
assistant professor	7	18.91	not published	36	97.3
Associate professor	2	5.4	Published (within the college)	1	2.7
Professor	0	0	Masterate		
Others	0	0	with	14	37.83
Teaching Units			not applicable	12	32.43
Overload	28	75.6	ongoing	7	18.91
Full	5	13.5	without	4	10.81
Light	4	10.8	not published	12	85.71
Teaching status			Published (local journal)	2	14.29
Full-time	36	97.3			
Part-time	1	2.7			

teaching loads.

Training and exposure to research was categorized into three parts, namely: academic (undergraduate, masterate, and registered nurses who are also medical doctors), professional (if they were part of the research unit of their hospital while in the clinical field), and research done alone (individual research which is not done in fulfillment of any requirement of any course nor is it funded by any institution). Majority of the respondents, 37 (64.9%) have been trained and exposed to research during their academic years. Knowledge of research was answered based on the respondents' perception on how well they knew research and its process, as a whole. Most (45.9%) of the faculty's self-assessment on their knowledge of research was said to be that they were good. With regards to their research paper during their baccalaureate years, 37 (100%) were able to conduct and finish this but 36 (97.3%) of the respondents' research works were not published. At the masters level, where nurses are expected to support an investigative climate of activities, to participate in research and to conduct investigations geared to quality monitoring, 14 (37.83%) reported to have accomplished their thesis papers, and 12 (85.71%) of the respondents' research works were not published.

It is evident that only a few researches, regardless of level attained, were published. This finding seems to be one of the problems of the nursing faculty as evidenced by the low publication rates presented.

Technological Profile of Respondents

In regard to the respondents' technological ability, Table 2 shows that twenty-nine of them (87.87%) access online databases at home. In an interview relating why they preferred to access internet journals rather than go to the library and read its hardcopy equivalent, one nurse respondent noted that it was more convenient for him to stay at home and browse through the internet rather than looking for a specific study through volumes of bounded journals. Apparently, they look for journals online because it is convenient and requires less time and effort particularly when searching for a specific article. Considering the young age group the faculty belongs to, most were computer literate and aware of online databases that may serve as resource materials in conducting research. As to whether they were aware of the university's subscription to online databases, 25 (75.75%) answered yes. Fourteen of the respondents (56%) were informed of the existence of such online database for nursing journals through search engines, with Medline being the most familiar

Table 2. Respondents' Technological Ability*

Profile	N	%
Access of internet		
home	29	87.87
Work	20	60.60
the library	15	45.45
research center	3	9.09
Awareness of subscription		
Yes	25	75.75
No	8	24.24
Familiarity with online databases		
Medline	23	71.87
ScienceDirect	15	46.87
EBSCO	5	15.62
Others	5	15.62
not familiar	5	15.62
CINAHL	8	25
Dissemination of online databases		
through the search engines	14	56
Through my professor	7	28
Others	6	24
classmates and friends	10	4
through the library	10	4
Online database used		
Medline	22	84.61
ScienceDirect	12	46.15
CINAHL	4	15.38
EBSCO	4	15.38
Others	3	11.53

Note. * multiple response

(71.87%) and widely used (84.61%) online database.

Table 3 lists the university's Health Sciences Library's Nursing Journals. From the 19 nursing journals available, only 7 (36.84%) journals are under the Institute for Scientific Information (ISI). ISI has a total of 38 refereed journals for the Nursing profession. These are evaluated journals that exemplify an impact factor which are most frequently used or cited and can be used to provide a gross approximation of the prestige of journals.

Table 3. List of Available Journals in University A Health Sciences Library (n=19)

Journal Titles	Percentage
Non-ISI Listed	
AACN Clinical Issues	63.16
Cumulative Index to Nursing and Allied Health Literature	
Dimension of Critical Care Nursing	
International Nursing Review	
Journal of American Psychiatric Nurses Association	
Journal of Emergency Nursing	
Journal of Nursing Administration: Health Care, law, ethics and regulation	
Lifelines	
MCN: The American Journal of Maternal/Child Nursing	
Nurse Educator	
Nursing Management	
Nursing Times	
ISI Listed	
American Journal of Nursing	36.84
Journal of Nursing Administration	
JOGNN (Journal of Obstetric, Gynecologic & Neonatal Nursing)	
Nursing Ethics	
Nursing Outlook	
Nursing Research	
Nursing	

University's Subscription to Nursing Journals

As Table 3 indicates, majority of the nursing journals (63.16%) are non-ISI listed. Though the library provides a number of subscribed journals, it seems to insufficient to cater to the needs of both teachers and researchers. One respondent commented: "Although the university has lots of resources in research, we need more access to international journals and publications to which there is still limited access."

Research Psychographics Profile of the Nursing Faculty

Table 4 presents the overall mean of the attitudes of the respondents towards nursing research. The mean scores indicate the level of agreement: the lower the score the more the sample agreed with the statement; the higher the score, the more the sample disagreed with the statement. The respondents' feelings overall mean is 1.89. For their awareness, $M = 1.43$; interests, $M = 1.64$; benefits and payoffs towards research, $M = 1.59$; perceptions and resource utilization and availability to research expressed both $M = 2.05$. This showed that the majority of the faculty have positive attitudes ($M = 1.85$) towards research.

Table 5 presents the items, by scale, which received the most agreement from the respondents. On the subscale, 'feelings towards research' the respondents expressed their strong agreement on the items which stated that research brings fulfillment to their profession ($M = 1.41$) and that researches are rewarding activities ($M = 1.54$). Regarding their perceptions about research, they strongly agreed that research broadens one's academic horizons ($M = 1.32$) and that including relevant research findings in classroom discussion enhances teaching ($M = 1.57$). They agreed that research is the way forward in changing nursing practice ($M = 1.32$) on the subscale of 'awareness' and that they are interested in applying research findings into practice ($M = 1.43$) as well as interested in updating and improving themselves with research findings ($M = 1.57$). For benefits

Table 4. Overall Computed Means of Nursing Attitude Scale (n=37)

Items	M	VI	SD
Feelings towards research	1.89	A	0.44
Perceptions	2.05	A	0.34
Awareness	1.43	SA	0.40
Interests	1.64	A	0.41
Benefits and Payoffs	1.59	A	0.38
Resource utilization and availability	2.05	A	0.34
AVE	1.85	A	0.28

Note. Legend: 1.00-1.49 Strongly agree (SA)
 1.50-2.49 Agree (A)
 2.50-3.49 Disagree (D)
 3.50-4.00 Strongly disagree (SD)

Table 5. *Statements on the Nursing Attitude towards Research with which Respondents Expressed the Most agreement*

Items	Mean
Feelings towards research	
I feel that research brings fulfillment to my profession	1.41
I feel that researches are rewarding activities	1.54
Perceptions	
I think research broadens one's academic horizons.	1.32
I think that including relevant research findings in classroom discussion enhances teaching.	1.57
Awareness	
Research is the way forward to change nursing practice.	1.32
Interests	
I am interested in applying research findings into practice	1.43
I am interested in updating and improving myself with research findings	1.57
Benefits and Payoffs	
Research findings that are advantageous to good patient care can be implemented in my working environment.	1.38
I believe research promises to deliver a more effective, efficient and compassionate basis to nursing practice and consequently to the quality of health care	1.38
Resource utilization and availability	
Library services are easily accessible	1.54
I have contact with colleagues with whom I could talk about research	1.70

and payoffs, they agreed on the items that research findings that are advantageous to good patient care can be implemented in their working environment ($M = 1.38$) and that research promises to deliver a more effective, efficient and compassionate basis to nursing practice, and consequently, to the quality of health care ($M = 1.38$). Respondents also showed their agreement on the items for resource utilization and availability that library services are easily accessible ($M = 1.54$) and that they have contact with colleagues with whom they could talk about research ($M = 1.70$).

Table 6, on the other hand, presents the items which received the least agreement. Respondents expressed their least agreement on items that they are not pressured to do research because they are capable of doing this ($M = 2.53$) and that they are willing to devote their leisure time to the conduct of research ($M = 2.24$). For the subscale 'feelings towards research', in terms of their perceptions, they disagreed with the items 'I think research is more rewarding than teaching' ($M = 2.78$), and 'I think research does not

distract a teacher from his/her primary duty to teach' ($M = 2.43$). The items they disagreed on in terms of awareness is that "conducting research is part of my role as a nursing professor" ($M = 1.57$). In the subscale of 'interests' they disagreed on the items that they are interested in conducting research ($M = 1.83$) and they are interested in learning more about research ($M = 1.73$). For the subscale of 'benefits and payoffs,' they disagreed with the items of nursing research is conducted because it allows nurses to be promoted ($M = 2.00$) and nursing research should be initiated by nurses in education ($M = 1.59$). For items regarding the resource utilization and availability, they disagreed that they can easily squeeze time into their busy schedule to analyze research and isolate those studies that present results that could improve practice and patient outcomes ($M = 2.89$) and that they have no difficulty in interpreting research results ($M = 2.41$).

This outcome is also supported in results indicated in Table 6 in the statement "I am not pressured to do research because I am capable of doing such", which ranked first

Table 6. Respondents' Statements on Nursing Attitude Scale towards research

Items	Mean
Feelings towards research	
I am not pressured in doing research because I am capable in doing such.	2.53
I am willing to devote my leisure time to conduct research.	2.24
Perceptions	
I think research is more rewarding than teaching.	2.78
I think that research does not distract a teacher from his/her primary duty to teach.	2.43
Awareness	
Conducting research is part of my role as a nursing professor.	1.57
Interests	
I am interested in conducting research.	1.83
I am interested in learning more about research.	1.73
Benefits and Payoffs	
Nursing research is conducted because it allows nurses to be promoted	2.00
Nursing research should be initiated by nurses in education	1.59
Resource utilization and availability	
I can easily squeeze time into my busy schedule to analyze research and isolate those studies that present results that could improve practice and patient outcome	2.89
I have no difficulty in interpreting the research results	2.41

among the most disagreed with item under the category of feelings towards research ($M = 2.53$) as well as the statement "I have no difficulty in interpreting research results" which got the highest remark ($M = 2.89$) in the most disagreed with item under the category of research utilization and availability. Interviews conducted confirmed this particular result:

"Because like now, I'm writing my thesis and I'm finding it quite difficult because there are things that were not taught before. We depend on their (teachers) knowledge and it so happened that my thesis adviser was relatively new in teaching research."

The study conducted yielded the same results, further strengthening this statement. In addition, Table 6 shows that the statement "I can easily squeeze time into my busy schedule to analyze research and isolate those study that present result which could improve practice and patient outcome" rated as the most disagreed with remark ($M = 2.89$) in the research utilization and availability group.

Multiple Correlation Analysis of Research Psychographic

and Demographic Profile of Nursing Faculty

To ascertain how the respondents' demographic characteristics relate to their research psychographics, multiple correlation analysis was used (see Table 7). On the one hand, the nurse professoriate's teaching status is positively correlated with the way they perceive research activities ($R = 0.444$) while a negative trend was evident once viewed in the number of years of practice as a nurse ($R = -0.433$) at .01 significance level. Moreover, it is interesting to note that feelings towards research ($R = 0.422$), research utilization and availability ($R = 0.480$) and overall attitude towards research ($R = 0.369$) are influenced by the nurse professoriate's research know-how.

On the other hand, respondents' teaching status influences their feelings on research ($R = 0.334$), views on research utilization and availability ($R = 0.306$) and overall attitude toward research ($R = 0.305$). Perceptions on research are shaped by variables such as highest educational attainment ($R = 0.134$) and knowledge of research ($R = 0.333$). Research interest ($R = 0.257$) and feelings on research ($R = 0.299$) are

Table 7. Multiple Correlation Analysis of Research Psychographic and Demographic Profile of Nursing Faculty

Area of Concern	Feelings on Research	Perceptions on Research	Research Awareness	Research Interest	Research Engagement Benefits and Payoffs	Research Utilization and Availability	Overall Attitude towards Research
Age	-0.051	-0.111	-0.139	0.177	-0.003	-0.097	-0.063
Gender	0.048	0.210	0.132	0.056	0.122	0.032	0.128
Civil Status	0.299*	0.218	-0.043	0.178	0.143	0.093	0.237
Highest Educational Attainment	0.181	0.134*	0.242	0.072	0.004	0.304*	0.279*
Academic Rank	0.072	0.094	-0.076	0.161	0.140	-0.059	0.072
Teaching Units	-0.058	0.103	0.044	-0.160	0.128	0.148	0.049
Teaching Status	0.334*	0.444**	0.042	-0.148	0.039	0.306*	0.305*
Years of teaching	0.031	0.008	0.067	0.230	0.122	-0.133	0.039
Years of practice	-0.188	-0.433**	-0.122	0.110	-0.314*	-0.255*	-0.325*
Training and exposure to research	0.033	-0.103	0.001	0.257*	0.046	-0.133	-0.008
Knowledge of Research	0.422**	0.333*	0.117	-0.040	0.041	0.480**	0.369**

* $p < .05$. ** $p < .01$.

correlated with training and exposure to research and civil status, respectively. Additionally, research utilization and availability ($R = 0.304$) and overall attitude towards research are influenced by the highest educational attainment. Surprisingly, the nurse professoriate's training and exposure to research was negatively correlated with the following psychographics: research engagement benefits and payoffs ($R = -0.314$), research utilization and availability ($R = -0.255$) and overall attitude towards research ($R = -0.325$).

Interestingly, results of the interview revealed that part-time faculty members have more time to conduct research activities. As one of them commented, "During my free time, I try to go to the library, look for new books, new publications and read my collection of journals I get from the students."

When asked about research activity engagement, a full-time faculty shared this: "I usually spend most of my time in the ward, then lectures, so basically 7-5 pm work. Lunch breaks are usually spent for meetings as well as checking the requirements of students. Weekends, a lot of paper work and we prepare lectures and things like that..."

Two the respondents added, "I go to work every morning, then I'm in an RLE [Related Learning Experience], then in

the afternoon I have a lecture class, then graduate school in the evening. During my free time, I prepare reports and compute grades..." "Since I spend a lot of time doing things related to my teaching job, I don't get to spend so much time with my son or my husband. That's why as much as possible, I make it a point that I focus my attention to them and not on my work..."

Though some of them find time to read journal articles, the purpose seems to be different as one of them articulated, "Whenever I have a free time, I use it to encode journals about the latest trends to teaching...so I can share more to my students."

Results of the interview with the respondents also disclosed factors that affect their non-engagement in research undertakings. These factors were categorized into personal and structural dimensions. Personal domains relate to the nurse professoriate's preoccupations, confidence in conducting research and professional advancement. As most of them commented:

Table 8. Regression Analysis of Nurse Professoriate's Research Psychographics with Demographic Profile as Predictors (Sample n = 37)

Research Psychographics	Equation	R	R ²	SE	F-ratio
Feelings on Research		0.65	0.42	0.42	1.16
Perceptions on Research	2.07 - 0.34Gen* + 1.45Age* - 1.77YT*	0.86	0.73	0.21	4.40**
Research Awareness		0.54	0.30	0.43	0.67
Research Interest		0.45	0.20	0.47	0.40
Research Engagement Benefits and Payoffs	1.59 + 2.64Age** - 2.49AR** - 0.59TU*+ 1.53TS**	0.83	0.69	0.27	3.55**
Research Utilization and Availability		0.58	0.34	0.34	0.83
Overall Attitude towards Research		0.63	0.39	0.26	1.04

Note. Gen = Gender, YT = Years of Teaching, AR = Academic Rank, TU = Teaching Units, TS = Teaching Status

* $p < .05$. ** $p < .01$.

“As to personal motivation, some of my co-faculty would not be interested in research because they are preoccupied with other priorities.”

“I cannot say that I'm skilled in doing research.”

“Research can help me in my regularization (tenureship) and in jumping from one rank to a higher rank (promotion).”

The structural dimension of their non-engagement to research activities is influenced by factors such as time, attractive financial support mechanism and administrative support. The following verbalizations support this claim:

“Time if we were given more time in college, the more we engage in research.”

“The last time I heard is that we would just be given I think a certain amount which has something to do with our post grad master units, but if you are going to think of it that way, it's more expensive doing a research per se rather than the incentive you're going to get.”

“They (administration) are encouraging us to conduct research, they even provide the funding provided that your proposal has already been approved, but you have to pay that in terms of your stay in the college as a faculty member. They do give us the option to de-load but when they distribute your teaching units, it has the same weight when you were full load.”

Regression analysis (Table 8) was done using the forward stepwise method which puts into the model a single

independent variable (respondents' demographic profile) that explains most of the variability in the nurse professoriate's research psychographics and then successively at each step inserts other independent variables that explain most of the remaining (residual) variability in the dependent variable. The procedure terminates if at any step none of the remaining independent variables explains a significant amount of variability in their research psychographics as revealed by their *F*-ratios at 0.01 level of significance. This resulted in prediction equation models for only two out of six research psychographic areas: the respondents' perception on research (R -value = 0.86, F -value = 4.40, $p < 0.01$) and their research engagement benefits and payoffs (R -value = 0.83, F -value = 3.55, $p < 0.01$). The respondents' perception of research is positively dependent on age ($\beta = 1.45$, $p < 0.05$) and negatively dependent on gender ($\beta = -0.34$, $p < 0.05$) and years of teaching ($\beta = -1.77$, $p < 0.05$) while their research engagement benefits and payoffs is positively dependent on their age ($\beta = 2.64$, $p < 0.01$) and teaching status ($\beta = 1.53$, $p < 0.01$) and negatively dependent on academic rank ($\beta = -2.49$, $p < 0.01$) and teaching units ($\beta = -0.59$, $p < 0.05$).

Scatterplots of the Nurse Professoriate's Demographics and Research Psychographics

R squared values (coefficients of determination) indicate the percent of which the dependent variable (research psychographics) is being explained by the independent variable (demographic profile). Results show that their feelings towards research ($R^2 = 0.42$), research engagement benefits and payoffs ($R^2 = 0.689$) and perceptions of research ($R^2 = 0.733$) can be adequately predicted by their

demographic profile. Existence of outliers in the scatter plots

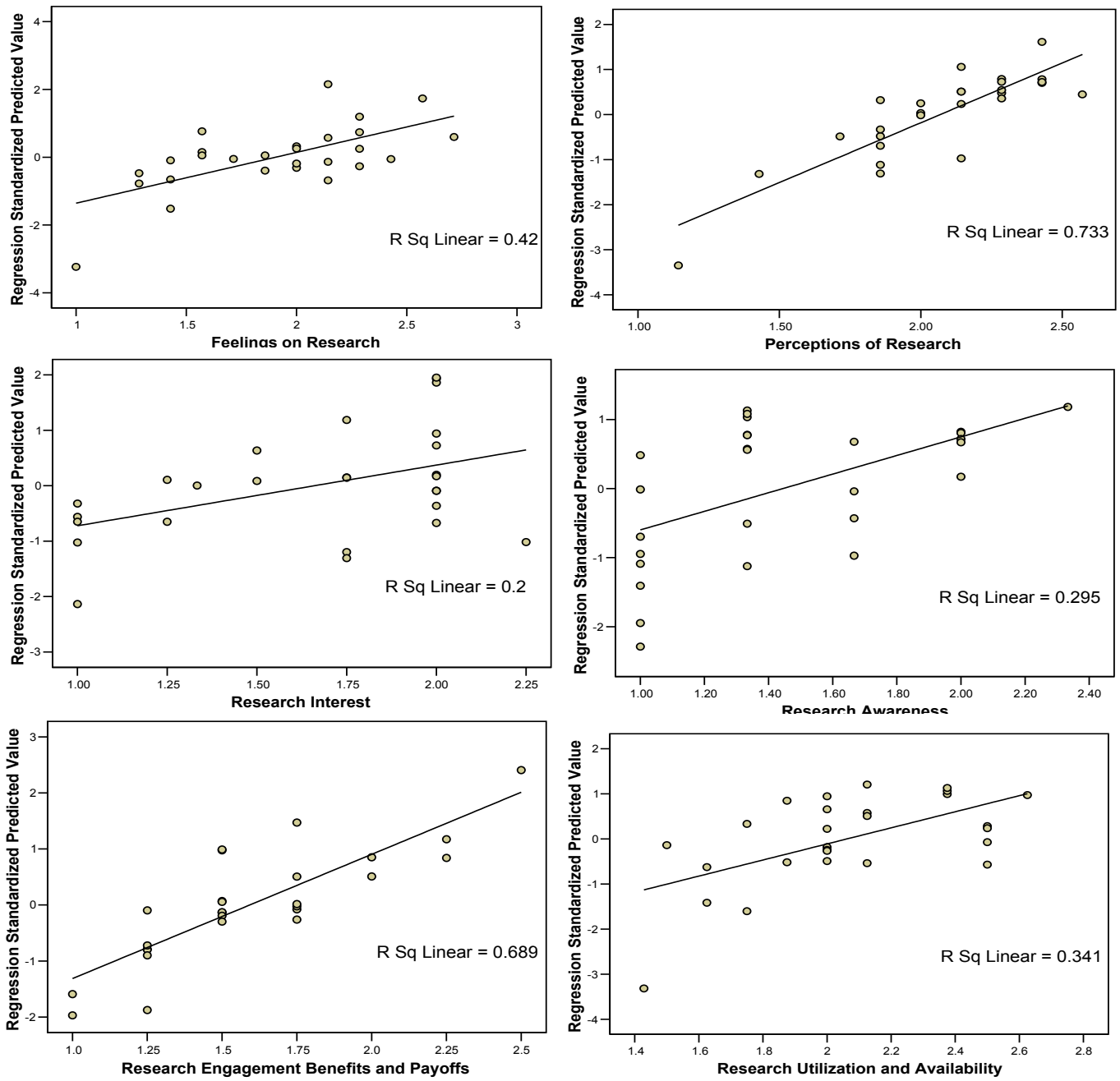


Figure 1. Scatter Plots and Regression Lines of Nursing Faculty Attitudes toward Research as affected by their Demographic Profile

of research interest, research awareness and research utilization and availability affected their coefficients of determination, indicating that research psychographics are somehow affected by other factors aside from the respondents' demographics.

Discussion

Results of the quantitative and qualitative episodes of this study yielded interesting results. With the participation of a relatively young breed of nurse professoriate recruited from

a group of 61 nursing faculty in a comprehensive university, results of the study indicated that their research orientation converge toward the awareness and knowledge levels and not so much on the dissemination and utilization as shown by a few number of researches published. Bar-Tal, Bergman and Eckerling (1988) averred that nurses who have attained advanced academic training especially at the graduate level are expected to support an investigative climate of activities, to participate in research and to conduct investigations geared toward quality monitoring of their nursing practice. Such engagement ensures the development of theoretical explanations of phenomena. If research is to be of much impact on clinical practice, it must be disseminated widely in journals for it to be accessed and used by other nurses. Nurse educators are pursuing research but they are not publishing it (Hicks, 1995).

On the whole, the nurse respondents in the study show a high degree of familiarity to and wide use of technology-driven sources relative to their nursing practice. While access to scholarly journal articles in both hardcopy and softcopy forms are made evident in the respondent institution, there is still a need to be aggressive in the identification of other rich sources of materials especially those coming from the most influential database of high impact journals such as those of the Institute for Scientific Information. For researchers to make quality studies and for them to commit more to research, their institution should at least provide them with adequate access to resources (Leeman, Goepfinger, Funk & Roland, 2003).

The overall attitudes of the nurse professoriate are geared toward positivity. Such state implies that the nurse educator recognizes the incalculable merit of research in helping the profession develop and stay updated and that conducting research is the responsibility of all nurses (Kyei, 1993). However, the way one thinks and the way one behaves is not always diametrically proportional. Factors in both the internal and external environments support that idea on why at times attitudes negate behavior.

Though the nurse professoriate have expressed a strong and positive interest in research, issues such as lack of capability, time element, and research perks prevent them from engaging in research undertakings. Nurses whose views on the role of research are negative or who felt to be insufficiently skilled in research would presumably not conduct research in the first instance (Hicks, 1995). Evidence has shown that nurses often express frustrations when conducting research, mainly because of lack of theoretical as well as technical ability in conducting studies (Bell, Chang, &

Daly, 1997; Kenty, 2001). Additionally, lack of time may be used as an "official" plausible reason for not undertaking research (Hicks, 1995; Tsai, 2000).

On the one hand, results of the study as shown by the use of multiple correlation and regression analyses indicate that teaching status, research know-how, educational attainment, and civil status contribute much the nurse professoriate's positive research psychographics. According to Brew (2001), different conceptions of learning, and different conceptions of the subject matter of the course will lead to different understandings and practice in relation to research led-teaching. Teachers who enjoy high academic status and have been exposed to good research training are most likely to promote a kind of teaching rooted on research findings. How the teacher prepares for teaching also determines the extent to which the teaching is research-led and what is understood by this (Brew, 2002).

On the other hand, results disclosed that the nurse professoriate's training and exposure to research and attitudes toward research engagement benefits and payoffs, research utilization and availability and overall attitudes toward research are negatively correlated. The role of a nurse educator in the promotion of research, its importance, and implication in continuing education cannot be underestimated (Thomas, 1998). According to Thomas, education is a central factor in increasing the utilization of research findings in practice. It is important for the educator to be aware of this and have the support they require to incorporate research in their teaching. If this is not done, the students, the future nurses and educators, may perceive research to be irrelevant to nursing and to its practice which may eventually lead to the extinction of research in the nursing context. According to Mulhall (1995), there is considerable support for the argument that the research base in nursing is so poorly developed and the opportunities for training and funding so limited that nursing should be regarded as a special case for resourcing and cultivating. It was also stated that there is indeed a paucity of substantive research findings in any one area in nursing due to two possible reasons: (1) inadequate funding structure and (2) poor career prospects within research. Mulhall (1997) suggested that strategies in bridging research-practice gap require answers to two aspects: (1) how research is conducted, i.e. where it is done, by whom and for what reason and (2) how research is reproduced, i.e. how research is presented by whom, to whom, and for what reason.

Impliedly, the foregoing disclosure points out for the need to address mismatches between training and exposure and existing research platform in the university. The extent to

which research engagement and productivity among university faculty, depends in great measure, on the ability of the university to design a well-defined research agenda, where the elements of infrastructure, culture and agents interact in a way that promotes sustainability of research effort undertakings. Today, more than ever, institutions of higher learning are expected to create an academic atmosphere where the type of research involvement among university teachers is well-defined and articulated. Boyer (1990) succinctly defined this in terms of the scholarship of discovery, integration, application and teaching.

Conclusion

Though this study was confined to the participation of a small number of nurse professoriate recruited from a comprehensive university in the capital of the Philippines, results yielded several interesting implications for *reculturing* of the nurse professoriate, *restructuring* of existing university research agenda and *reformulating* policy statements both at the macro and micro levels.

While universities around the world recognize the centrality and importance of human resources as the lifeblood of the institution's academic centerpiece, efforts to continuously re-culture the faculty via a provision of an aggressive, needs-oriented, technology-driven and competency-based research training program covering those who represent various research know-how and entry levels. An epistemological shift in the way research is understood and carried must be substantially addressed by a programmatic and systemic kind of training that capitalizes on the triad of "know-what," "know-how," and "know-why" components of research undertaking. Knowing what you do and understanding what you make remains to be an imperative in research training in the university level.

The road to restructuring the existing research platform may not be an easy task. What is important, however, is for the university to revisit its best research practices within and outside the institution for purposes of benchmarking. Lessons learned from this benchmarking activity may be used as valuable inputs in defining key result areas (KRAs) and key performance indicators (KPIs) of research program of the university. Defining the competitive edge of the university through research entails systemic planning. There is need to address basic questions such as "Where are we now?" "Where do we want to go?" and "How do we get there?"

Ensuring the operation of a well-defined research agenda

in the university with a view to creating a true research culture entails crafting of policy statements and guidelines that would govern research planning and decision-making. These policies, once codified and communicated to all school sectors, develop a sense of direction and sense of ownership within the school organization.

Understanding the context, input, process and product of research undertaking is a complex endeavor. An attempt to investigate the research psychographics of the nurse professoriate serves as a driving force in exploring the dynamics research undertakings in today's university. Though the results of the study may not be representative of the sentiments of other nursing schools in the country, the fact still remains that a certain reality frame in one of the fast-growing fields not only in the Philippine but around the world has been disclosed. There is a felt need for future researchers to investigate multiple dimensions of the research psychographics capitalizing on other tools, combining both positivist and qualitative orientations. Variables investigated in this study may be expanded and the tools used may be tested in other settings and disciplines with the involvement of a more aggregate set of respondents.

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