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Assessment of the Perceived Self-efficacy of Nurses to Function as a Nurse Practitioner

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Abstract

The 2013 Health Policy of Kerala recommends for nurse practitioners. The objectives of the present study were to assess the perceived self-efficacy of nurses to function as nurse practitioners and to find its association between selected demographic variables. The study was conducted among 150 registered nurses, using a descriptive survey design and the subjects were selected using purposive sampling. The data was collected using investigator prepared validated five point rating scale having 65 items under 10 domains. The results showed that irrespective of the age, gender, type of education and duration of clinical and teaching experience 90% of the subjects rated themselves as having very good perceived self-efficacy as NPs and the remaining rated as having good perceived self-efficacy. The overall mean score of the perceived self-efficacy was 280 out of 325 with an SD of 25. In conclusion even with present training nurses in Kerala are confident to function as NPs which is congruent with the study done among nurses of Ireland. Closely mentored NP program that maintains the standards will ensure the competency and safe care for the public.

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Introduction

According to the International Council for Nurses - 70 countries including Asian countries like Singapore and Taiwan have established Nurse Practitioners/ Advanced Practice Nurses roles (NPs/APN). The Alpana news 2013 indicates that at present, there are about 200,000 NPs in U.S. and Nurse Practitioner Program was started about 80 to 100 years back

In order to render best quality care NPs have to possess certain skills. The National Organization of Nurse Practitioner Faculties (NONPF) at US, is the only organization to promote quality nurse practitioner (NP) education at the national and international levels. The

NONPF had first released in 1990 and subsequently updated in 1995, 2000, 2002, and 2006, the domains and core competencies for NP practice have provided guidance to curriculum development across NP programs to implement the full scope of practice as a licensed independent practitioner. In 2006 the 75 competencies were classified under seven domains like (i) management of patient health/illness status, (ii) the nurse practitioner – patient relationship, (iii) the teaching and coaching, (iv) professional role, (v) managing and negotiating health care delivery system, (vi) monitoring and ensuring quality of health care practices and (vii) culturally sensitive care. Throughout the competencies, patient is defined as the individual, family, group, and/or community (NONPF-2006).

The core competencies were again revised in 2011 and amended in 2012 by NONPF, which says that NP graduate possesses the nine core competencies regardless of population focus and each one has got again subdivisions. The nine core competencies are (i) scientific foundation competencies, (ii) leadership competencies, (iii) quality competencies, (iv) practice inquiry competencies, (v) technology and information literacy competencies, (vi) policy competencies, (vii) health delivery system competencies, (viii) ethics competencies, (ix) independent practice competencies (Thomas *et al.*, 2011).

The Australian Nursing and Midwifery Council had set three generic standards that define the parameters of nurse practitioner practice and these standards are defined by nine competencies each with specific performance indicators. The nurse practitioner leads through any of a number of roles including researcher, clinical teacher, case co-coordinator, and spokesperson, and in this capacity may take responsibility for assisting the public, policymakers and other health care professionals to understand the nurse practitioner role (Competency Standards for the Nurse Practitioner - 2004).

Nurse Practitioner Advisory Committee of New Zealand 2003 - gives the checklist for assessing the competencies of nurse practitioners under the four main domains and they are professional responsibility and leadership, management of nursing care interpersonal and inter professional practice and quality improvement and the prescribing practice.

In 2008, a Delphi study was done in US with a national sample of credentialed NPs in emergency care to describe entry level competencies of NP for practice in emergency care. In order to reach group consensus, three rounds of online questionnaire were sent to NPs. Participants were asked to rate the importance and frequency of performance for each competency as well as list competencies they felt were not addressed in the questionnaires. The list of competencies was reduced from 111 to 83. In 2008, a Consensus Panel Meeting including nine national organizations like NONPF was met to validate the Delphi study findings and gain consensus from a multidisciplinary group of stakeholders. The stakeholders approved a list of 60 entry-level competencies which has got implications for NPs in areas like: 1) education, for use in academic settings as a foundation for curricula; 2) practice, emphasizing the unique aspects of practice for the NP in

emergency care; and 3) research, including the development of advanced competencies for NPs in emergency care (Hoyt *et al.*, 2010). One of the resolutions passed by Indian Nursing Council in the year 2001-2002 is that "Nursing is an Independent Profession". In India to strengthen the quality of MCH services, the National Commission on Macroeconomics and Health (2005) had suggested that one Independent Midwifery Practitioner should man each Community Health Centre. This has led to the birth of Nurse-Midwifery Practitioners. Very recently INC also has started nurse practitioner program in critical care nursing which gives a lot of hope for the nurses of India.

A study was done in New York in the year 2005 on "Dentistry, nursing, and medicine: a comparison of core competencies". The purpose of this study was to compare the core competencies of nurse practitioner and dental education programs as the health care, since the oral health care and oral health education are very costly. The results showed a surprising overlap of the core competencies of the dental and nursing professions (38 percent partial or total overlap). A similar overlap with medicine also exists, (25.4 percent). These results are notable because it demonstrate that the three health professions, independently of one another, developed very similar basic competencies and learning objectives. These data should encourage other health professions programs to seek new collaborative models for education, beyond the present training, and new health care delivery systems as has been strongly recommended by the Institute of Medicine. Such collaborative education redirects health care toward providing truly interdisciplinary comprehensive primary care for patients (Spielman *et al.*, -2005). Same way the subjects of this study have not undergone nurse practitioner program. But the B Sc and M Sc Nursing courses prescribed by the Indian Nursing Council (INC) gives importance both to theory and clinical posting. As per the syllabus prescribed by the Kerala University of Health Science which is recognized by INC for M Sc nursing there is a duration of theory is 900 hrs and the clinical posting is of 3600 hrs and the eligibility is one year of teaching or clinical experience after successful completion of B Sc nursing which is having total 2240 hrs theory and 4010 hrs clinical posting.

When the investigator reviewed the core competencies needed for NPs it was found that in order to work as a registered nurse most of the core competencies are essential. As we analyze the competencies of nurse practitioners thoroughly we can see that, nurse

practitioners are actually applying the nursing process with some more modification because assessing, monitoring and evaluation are part of nurse's routine work. Though it is not an effort to establish that both the courses are the same the investigator felt the need to identify how far the graduate and post graduate nurses of India consider themselves are capable and confident for it with the current education and in what all areas they lack the confidence and how much more training is needed.

Statement of the Problem

A study to assess the perceived self-efficacy of nurses to function as a Nurse Practitioner from selected hospitals of Kottayam Dist.

Objectives

Assess the perceived self-efficacy of nurses to function as nurse practitioners.

Find the association between perceived self-efficacy and selected demographic variables.

Materials and Methods

Quantitative approach and non-experimental descriptive survey design was used for the study. By using non probability purposive sampling, 150 registered nurses who were working either as staff nurses in the clinical area or as nursing faculty in nursing colleges were selected. Tool consisted of two sections. Section A; base line data of the nurses. Section: B – Likert type five point rating scale to assess the perceived self-efficacy of nurses to function as nurse practitioner

Development and selection of the tools

The tool was prepared after extensive review of literature and discussion with experts and senior administrators from the field of nursing specialty. The rating scale to assess the perceived self-efficacy to function as nurse practitioner consisted of 65 items and were divided under ten domains. The ten domains were management of patient health/illness status, quality practice competencies, clinical and professional leadership competencies, interpersonal and inter professional relationship, expert coaching and guidance function, managing and negotiating health care delivery systems, culturally-sensitive care, policy competencies, ethics competencies, research and scientific foundation

competencies. The maximum score was 325 and the minimum was 65 and were divided into poor, average, good, very good.

Poor = 65 – 130

Average = 131 – 195

Good = 196 – 260

Very Good = 261 -325

To obtain the content validity, the prepared tool, with objectives, operational definition and criteria checklist was submitted to seven experts including senior administrators from the field of Nursing who were from the five different specialties of nursing. The tool was modified as per the suggestions from the experts and final tool was constructed. The reliability of the tool was tested by test retest method ($r= 0.92$). Analysis of the data was done by using SPSS version 17. Test was administered for the duration of 30 to 45 mts. Ethical clearance was obtained from Institutional Human Ethics Committee and informed consent was taken from the study participants.

The technique used was self-report.

Results and Discussion

Level of perceived self-efficacy of nurses as nurse practitioners

Majority (90%) of the subjects rated themselves as having very good perceived self-efficacy as NPs and the remaining rated as having good perceived self-efficacy. No one was there in the category of poor or average perceived self-efficacy. In the domain of management of patient health/illness status 95% of the subjects rated themselves as having very good perceived self-efficacy followed by culturally sensitive care (87%), interpersonal and inter professional relationship (85%), policy competency (81%), managing and negotiating health delivery system (80%), clinical and professional leadership competencies (79%), expert coaching and guidance function (69%), quality practice competencies (67%), ethics competencies (53%), and in research and scientific foundation competencies (52%). It is evident that in all the domains more than 70% subjects rated themselves as having very good perceived self-efficacy except in research and scientific foundation and ethics competencies where 52% and 53% rated themselves as having very good perceived self-efficacy and the remaining were having good perceived self-efficacy (Table -1).

Table.1 Distribution of nurses according to the level perceived self-efficacy as nurse practitioners

| Sl. No. | Domains | Good | | Very Good | |
|---------|---|------|----|-----------|----|
| | | F | % | F | % |
| 1. | Management of Patient Health/Illness Status | 8 | 5 | 142 | 95 |
| 2. | Quality Practice Competencies | 49 | 33 | 101 | 67 |
| 3. | Clinical and Professional Leadership Competencies | 32 | 21 | 118 | 79 |
| 4. | Interpersonal and Inter professional Relationship | 23 | 15 | 127 | 85 |
| 5. | Expert Coaching and Guidance Function | 46 | 31 | 104 | 69 |
| 6. | Managing and Negotiating Health Delivery Systems | 30 | 20 | 120 | 80 |
| 7. | Culturally-Sensitive Care | 19 | 13 | 131 | 87 |
| 8. | Policy Competencies | 29 | 19 | 121 | 81 |
| 9. | Ethics Competencies | 70 | 47 | 80 | 53 |
| 10. | Research and Scientific Foundation Competencies | 72 | 48 | 78 | 52 |
| | Total | 14 | 10 | 136 | 90 |

Table.2 Maximum score, minimum score, mean and SD of the perceived self-efficacy of nurses as nurse practitioners

| Sl. No. | Domains | No. of items | Maxi. Score | Mini. Score | Mean ± SD |
|---------|---|--------------|-------------|-------------|---------------|
| 1. | Management of Patient Health/Illness Status | 16 | 80 | 16 | 71±6 |
| 2. | Quality Practice Competencies | 6 | 30 | 6 | 26±3 |
| 3. | Clinical and Professional Leadership Competencies | 10 | 50 | 10 | 42±5 |
| 4. | Interpersonal and Inter professional relationship | 7 | 35 | 7 | 32±5 |
| 5. | Expert Coaching and Guidance Function | 6 | 30 | 6 | 26±3 |
| 6. | Managing and Negotiating Health Care Delivery Systems | 5 | 25 | 5 | 21±3 |
| 7. | Culturally-Sensitive Care | 5 | 25 | 5 | 21±3 |
| 8. | Policy Competencies | 4 | 20 | 4 | 17±3 |
| 9. | Ethics Competencies | 3 | 15 | 3 | 13±2 |
| 10. | Research and Scientific Foundation Competencies | 3 | 15 | 3 | 13±2 |
| | Total | 65 | 325 | 65 | 280±25 |

Table.3 Distribution of nurses according to the perceived self-efficacy and the base line data

| Sl. No | Base line Data | Perceived self-efficacy | | Total no. of nurses | | χ ² | P value |
|--------|--|-------------------------|-----------|---------------------|----|--------------------|---------|
| | | Good | Very good | Frequency | % | | |
| 1. | Age in years (n = 150) | | | | | 0.887* (df =1) | 0.551 |
| | 25-35 | 9 | 90 | 99 | 66 | | |
| | 36-45 | 5 | 46 | 51 | 34 | | |
| 2. | Gender (n = 150) | | | | | 0.683* (df =1) | 0.599 |
| | Male | 3 | 36 | 39 | 26 | | |
| | Female | 11 | 100 | 111 | 74 | | |
| 3. | Type of education (n = 150) | | | | | 0.223* (df =1) | 0.482 |
| | Graduate | 4 | 62 | 66 | 44 | | |
| | post graduate | 10 | 74 | 84 | 56 | | |
| 4. | Duration of clinical experience (n = 146) | | | | | 0.966* (df =1) | 0.216 |
| | 3-6 years | 10 | 66 | 113 | 77 | | |
| | 7-10 years | 3 | 20 | 33 | 23 | | |
| 5. | Duration of teaching experience (n = 103) | | | | | 0.272 * (df =1) | 0.175 |
| | 3-6 years | 10 | 55 | 65 | 63 | | |
| | 7-10 years | 3 | 35 | 38 | 37 | | |

*-Not significant (p<0.05 level)

The Maximum score, minimum score, mean and SD of the perceived self-efficacy of nurses as nurse practitioners

The mean score of the perceived self-efficacy was 280 out of 325 with an SD of 25. The mean score and SD of each domain was management of patient health/illness status 71/80±6, quality practice competencies 26/30±3, clinical and professional leadership competencies 42/50±5, interpersonal and inter professional relationship 32/35±5, expert coaching and guidance function 26/30±3, managing and negotiating health care delivery systems 21/25±3, culturally-sensitive care 21/25±3, policy competencies 17/20±3, ethics competencies 13/15±2, research and scientific foundation competencies 13/15±2 (Table -2).

Distribution of nurses according to the perceived self-efficacy and the base line data

Among the subjects 66% were between the age group of 25 – 35 and the remaining were between the age of 36 – 45 years. Most (74%) of them were females and 56% of them were post graduates and the remaining were graduates. All of them were working either as staff nurses or teaching but none were worked along with NPs. Among them 77% of them were having a clinical experience of 3-6 years and 23% were having 7-10 years experience. 66% of the subjects were having teaching experience and among them 63% were having teaching experience of 3-6 years and the remaining were having the experience between 7-10 years.

Chi-square test was used to find out the association between base line data and the perceived self-efficacy of nurses as NPs. The perceived self-efficacy was independent of all the base line variables such as age, gender, education, duration of teaching and clinical experience (Table 3). As majority (90%) of the nurses were having very good perceived self-efficacy, no association was found between base line variables and level of perceived self-efficacy.

The major findings of the study is that all most all the nurses 90%, consider themselves to have good perceived efficacy to function as NPs irrespective of the age, gender, type of education and duration of clinical and teaching experience. This findings are almost congruent with the study done in Ireland with an aim to identify the procedures performed and associated competencies of emergency nurses. Findings shows that nurses of emergency dept. in Ireland engage in a wide range of

activities without undergoing nurse practitioner program, and the nurses judged themselves to be competent in performing different functions many of which are described in other countries as advanced practice like diagnostic function, effective management of rapidly changing situations and planning patient care. This implies the need for recognition of the competency of nurses in Ireland and additional training is to be given in deficit areas (McCarthy *et al.*, 2005).

The results showed that nurses had high perceived self-efficacy score to functions as NPs and there was no association between the level of perceived self-efficacy and the base line data. The high rating may be because the nurses were excited to assume the role of NPs that they have only studied in the text books in India as advanced and extended role of nurse which is there in seventy countries in the world (ICN International NP/APN Network). In conclusion even with present training nurses in Kerala are confident to function as NPs. In order to ensure the competency and to deliver safe care for the public closely mentored NP program is essential that meets the standards.

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