

Effectiveness of Induction Programme for Novice Nurses at CMC Vellore, India- A Review Article

Johnson M¹, Premkumar J², Chetty K³

¹Former Deputy Nursing Superintendent, CMC Vellore, India.

²Former Nursing Superintendent and Former Professor, CMC Vellore, India.

³Director of Nursing AFHSR. Saudi Arabia.

ABSTRACT

The effectiveness of the induction programme was conducted in CMC Vellore one of the best tertiary care hospitals in India, presently with 4500 beds. The aim of the study was to assess the effectiveness of a structured induction programme on the knowledge and practice of the recruits in C.M.C, Vellore. A study to assess the effectiveness of structured induction training programme on the knowledge and competency of nursing practice for the newly recruited staff nurses.

Keywords: CMC Vellore, Effectiveness, Induction, Novice, Programme.

Address for Correspondence Author

Dr. Johnson M; Former Deputy Nursing Superintendent, CMC Vellore, India.

E-mail: mary1967cmch@yahoo.com

Crossref Doi: <https://doi.org/10.36437/irmhs.2021.4.2.A>

Introduction

Caring is the foundation and a critical component of nursing. It can be accomplished with wisdom, knowledge, compassion, and competence. Our nurses work in an environment that encourages professional responsibility and expertise in caring for the patients in our care, a collaborative relationship with the multidisciplinary team. All new nursing employees participate in an induction and orientation programme designed to give all new nurses a basic foundation in nursing as well as an overview of the policies and functioning of the hospital.

Objectives of the study were:¹ To assess the knowledge of nursing recruits on the selected nursing practice among the controlled group.² To assess the knowledge of nursing recruits on the selected nursing practice among the experimental group.³ To assess the competency of nursing recruits

on the selected nursing practice among the controlled group.⁴ To assess the competency of nursing recruits on the selected nursing practice among the experimental group.⁵ To identify the effectiveness of the structured induction programme by comparing the knowledge and competency of the nursing recruits on the selected nursing practice between the control and experimental group.⁶ To find the association between the demographic features and the knowledge and competency of them on selected nursing practice in both control and experimental group. The study design is quasi-experimental. The investigators will obtain permission to carry on the study from the IRB of C.M.C, Vellore. Prior permission from the nursing superintendent was obtained. The Heads of the department were informed about the study. One group of inductees were selected as the control group (Who had undergone one week of conventional induction programme without skill training

and preceptor's guidance) comprising of 80 nurses. These nurses were not exposed to the structured induction programme also they would not have had mentors and preceptors to guide them. They were explained the purposes of the study and their written consent was obtained. Their knowledge and competencies in the selected nursing care practice were assessed using a questionnaire with 50 questions and a checklist for practice with 50 observational items. Their demographic features such as Demographic characteristics consist of details such as the name of the staff age, sex, basic qualification, institution trained (mission /private), years of experience, marital status, number of children they have. These new recruits (80 nurses) who were recruited from the month of July will be selected for the experimental group. Before they were placed in the wards they were exposed to the structured induction programme which was for two weeks, they had skill demonstrations in the selected nursing skills by the Nurse Managers who served as mentors, these mentors demonstrated the selected nursing care skills, ensuring the return demonstration of these skills. Skill lab was used for demonstrations The skill lab would had manikons for demonstration of nursing procedures such as oral medications, parenteral drug administration, surgical dressing, back massages, intravenous infusions, blood transfusions, nasogastric tube feeds administration, etc. Once the two weeks structured induction programme gets over, these nurses will be posted to the wards and the ward in charge will be their preceptors for 6 months period. The knowledge and the competencies on the selected nursing care skills were assessed in a similar manner as was done for the control group after 6 months on these experimental group staff members. Recruitment in nursing service usually occurs once in 45 days.

Around 20-40 nurses were recruited each time. The written consent was obtained from the experimental group staff members also after adequate explanation about the study.

Data Analysis: The data collected were arranged, analysed, and tabulated. Descriptive statistics such as frequency, mean were used to describe the demographic details. Descriptive statistics such as frequency, mean, standard deviation, and percentage were used to determine the level of knowledge and practice of the recruits.

Protection of Human Subjects: Ethical clearance will be obtained from the college of Institutional review board. Permission will be obtained from the Nursing Superintendent. Written consent will be taken from the staff nurses who will be studied. The study subjects will be assured that all the data collected will be kept confidential anonymity will be maintained and will be used only for the present and future study purposes.

Study Findings: The nurses in the control group scored 60 % in the theory (knowledge) and 65 % in their clinical skills or practice prior to the induction programme and after the induction programme, there was an increase in the knowledge And practice in the control group not statistically significant (5%) but in the experimental group, the pre and post-test scores revealed a statistically significant increase in the knowledge and practice after the induction programme ($P < 0.01\%$). The increase in knowledge was 25% ($P < 0.01\%$) and skill was 30% ($P < 0.01\%$). The pre-induction scores for the experimental group for knowledge was 62% and practice was 64%. There was a significant association between the knowledge and practice of nurses in the demographic variables in terms of their years

of experience in nursing, all other demographic features like their age, an institution they had their training, urban-rural areas of residence, gender did not have any significant association with their knowledge and practice.

Title of the study: A study to assess the effectiveness of structured induction training programme on the knowledge and competency of nursing practice for the newly recruited staff nurses.

Objectives:

1. To assess the knowledge of nursing recruits on the selected nursing practice among the controlled group.
2. To assess the knowledge of nursing recruits on the selected nursing practice among the experimental group.
3. To assess the competency of nursing recruits on the selected nursing practice among the controlled group.
4. To assess the competency of nursing recruits on the selected nursing practice among the experimental group.
5. To identify the effectiveness of the structured induction programme by comparing the knowledge and competency of the nursing recruits on the selected nursing practice between the control and experimental group.
6. To find the association between the demographic features and the knowledge and competency of them on selected nursing practice in both control and experimental group.

Review of Literature: Review of 15 empirical studies, conducted since the mid-1980s, on the effects of support, guidance, and orientation programs—collectively

known as induction—for beginning teachers. Most of the studies reviewed provide empirical support for the claim that support and assistance for beginning teachers have a positive impact on three sets of outcomes: teacher commitment and retention, teacher classroom instructional practices, and student achievement.

Benefits of the Induction Programme are:

1. Meeting newly qualified nurses need for support
2. Confidence and competence of newly qualified nurses
3. Quality of care
4. Retention, sickness and absence
5. Choosing career pathways
6. Staff who act as preceptors
7. Organizational resources

Background: The Induction Program for newly recruited staff nurses of the St. John's hospital was initiated in June 2007 by the College of Nursing in collaboration with the Nursing service of the hospital. The objectives of this program are: to orient staff nurses to the hospital's inpatient care settings.

To familiarize staff nurses with the hospital's procedure manual, to stress the importance of nurse-patient interaction and communication skills, to review the importance of professional etiquette as a primary requirement for quality care, to reinforce skill training in the nursing procedure. The program is usually conducted regularly for a period of 7 to 10 days. The program schedule would consist of: Introduction to the mission and vision of St. John's National Academy of Health Sciences, team building, basic care of patients, communication skills, basic conversation, professional etiquette, interaction with departments like Pharmacy, Medico-Social

Work (MSW), Billing, etc. regarding various policies related to admission and discharge of patients.¹

The role of support in facilitating the transition from student to qualified nurse has long been recognized (Kramer 1974, Lathlean 1987, Shand 1987). In the UK, this was formally acknowledged by the UKCC in its 1986 proposals for reforming nursing education and practice. The benefits of preceptorship, as this initial period of support, was entitled, were set out in subsequent UKCC documents development (UKCC 1986). The benefits of preceptorship, as this initial period of support, was entitled, were set out in subsequent UKCC documents. The essence of the system was the allocation of each newly qualified nurse to an experienced practitioner working in the same setting preceptor) who would provide support with the transition from student to registered nurse and assist with the development and consolidation of knowledge and skills? Identified as an essential part of ensuring a smooth transition from student to professional practitioner, it was argued that care and protection of patients would be enhanced by supporting and developing newly qualified nurses this way (UKCC 1990, 1993).²

This review critically examines 15 empirical studies, conducted since the mid-1980s, on the effects of support, guidance, and orientation programs—collectively known as induction—for beginning teachers. Most of the studies reviewed provide empirical support for the claim that support and assistance for beginning teachers have a positive impact on three sets of outcomes: teacher commitment and retention, teacher classroom instructional practices, and student achievement.³ Bick (2000) attempted to ascertain whether the introduction of a

more formalized framework for induction and preceptorship improved newly qualified nurses' experiences with a 'before and after study in one hospital trust involving newly qualified nurses and a clinical facilitator. The report strongly suggests that there is much improvement in the performance of nurses after the induction and preceptorship programme.⁴

Studies of child branch nurses include that by Bradley (1998) who examined the experience of transition from student to staff nurse by conducting individual in-depth interviews with a single cohort of child branch diplomates at five months post-qualification. The other three studies of children's nursing all focused on the effects of preceptorship programmes. After a new programme of induction and preceptorship was introduced there was a significant improvement in the performance of the new nurses and it offered job satisfaction for the preceptors.⁵

Studies of child branch nurses include that by Bradley (1998) who examined the experience of transition from student to staff nurse by conducting individual in-depth interviews with a single cohort of child branch diplomates at five months post-qualification. The other three studies of children's nursing all focused on the effects of preceptorship programmes. After a new programme of induction and preceptorship was introduced there was a significant improvement in the performance of the new nurses and it offered job satisfaction for the preceptors.⁶

Lee (1997) focused on preceptors, with an exploration of experiences and views of a cluster sample of potential E and F grade preceptors in one large district general hospital. He mentions that as the inductees

require preparation, the preceptors also need to be prepared well ahead of time to guide the recruits. Their experience needs to be considered in the selection for preceptorship.⁷

Five studies provided information about preceptorship for adult branch nurses. Maben and Macleod Clark (1998) used in-depth unstructured interviews to describe experiences of transition from student to staff nurse of a small convenience sample of staff nurses qualified for less than one year. They have identified that new environment, transition, new procedures and lack of confidence, etc have been the stressors for the beginners.⁸

In all their studies they have found that the preceptorship has a very influence on the new recruits.

The most newly qualified nurse wanted preceptorship and the majority reporting receiving it in the post-qualification period Assistance was provided with skill development and with easing the transition into the new role Relationships with preceptors were generally viewed positively Preceptorship was regarded as a key component of a successful transition for a student to registered nurse Preceptors reported benefits of the satisfaction of helping newly qualified nurses and having opportunities to further their knowledge and teaching competencies. The development of more formalised programmes had a positive impact on clinical skill development.

Runciman et al (2002) interviewed managers of independent nursing homes about educational support for newly qualified nurses. The managers suggested that the newly recruited nurses must be supported with ongoing continuing education programmes, there must be a strong

induction programme, and also they must be supported by mentors.

As a mentor, he/she will have the privilege and responsibility of helping students translate theory into practice, and making what is learned in the classroom a reality. It is a role that the mentors are entrusted with by the staff nurses, colleagues, and most importantly, patients. Passing on their knowledge and skills is one of the most essential roles any mentor can undertake, and it can be very rewarding.⁹

Pfeil (1999) interviewed preceptees and preceptors employed in three acute health trusts in the area surrounding the university from which preceptees had qualified, once near the beginning of the preceptorship period and again at six months. She also sent questionnaires at monthly intervals for 6 months to both groups to monitor aspects of preceptees' performance. Farrell and Chakrabarti (2001) undertook a two-phase questionnaire and interview study in one NHS children's Trust to evaluate the effectiveness of preceptorship arrangements following the development of a programme.¹⁰

The government of India does give importance to induction for any kind of programme in the country and has set aside revenue for it in the eleventh five-year plan (2007-2012).¹¹

Induction In a bid to facilitate the induction of a fresh recruit into the Indian Oil family, all recruits are imparted induction training. The induction programme consists of a Corporate Module as well Divisions-specific modules. These modules provide not only a macro view of the business and endeavours of Indian Oil but also a micro insight into its various functions. A unique blend of classroom training, as well as field visits,

helps fresh entrants understand the grassroots working of the organisation. Believing in the power of enriched experience, these training modules also provide ample opportunity to the officers for interacting with the senior management, including Directors on the Board.¹²

Induction Programme–Guiding Principles:

1. The induction programme should be well planned and structured by the line manager and delivered to the member of staff in a methodical and orderly manner.
2. The core content remains the same, however, some details may need to be customised to the needs and requirements of the person and their role.
3. The duration of the induction process should typically take around 28 days (4 weeks). This may vary depending upon the individuals' level of experience and understanding and on the role to which they have been appointed to.
4. Key stages of the induction programme.
4. Pre-arrival – following confirmation of the appointment by recruitment, it is good practice for the line manager to make contact with the new member of staff via letter to welcome them before their arrival. This provides a more personal introduction to the Trust after the formalities of the recruitment process. The letter should typically cover • First days start time • where and whom to report to • the dress code • what to expect on the first day.
5. Local induction should commence on the first day in the new role. This should continue until the new member of staff is fully inducted into their role and the team. The induction

process needs to be led by the relevant manager but should also include input, where required from colleagues who may be best placed to provide specific information and assistance. Induction checklist – In order to provide a framework and to ensure that all relevant information is covered within local induction an induction checklist Appendix B has been developed. It is a mandatory requirement that this is used over the course of the local induction period. Adaptation may be required to the particular needs of the new member of staff, their role, skills & experience and to the particular needs of local working patterns. Induction buddy – It can be beneficial to assign a buddy from the team to a new member of staff for the duration of their local induction period. This can assist with faster integration as the buddy acts as a more 'informal' point of reference, providing information and guidance regarding the local team, whereas a manager will be focused on the more formal aspects of the induction process. Further information on the purpose of and the role of a buddy can be viewed.¹³

Methodology

Newly recruited staff nurses were the population. Newly recruited staff nurses were the samples. 80 newly recruited staff nurses in each group, a total of 160 staff nurses. (The control and experimental group). The non-probability sampling technique was followed as all the newly joining recruits were selected.¹ The newly recruited staff nurses who consented to the study were Outside trained staff nurses also newly recruited staff nurses trained in C.M.C

who already had undergone extensive training.

Data Collection Instruments

Part A: Demographic characteristics consisted of details such as the name of the staff age, sex, basic qualification, institution trained (mission/private), years of experience, marital status, number of children they have.

Part B: Consisted of questionnaire to assess their present knowledge on the selected nursing care comprising of 50 questions.

Part C: Consisted of a checklist to identify their competency on selected basic nursing care. The checklist had a minimum of 50 items. Scoring procedure: The scoring was done to assess the knowledge and practice of nurses. A score of 1 was done for correct response and a score of 0 was given for negative or wrong response for knowledge domain and for skill/practice domain a score of 0.5 was given if the procedure was done and 0 if not done. No score for NA. Theory scoring: 80-100 Excellent, 65- 80 Good, 50-64 Average, < 50 – Poor.

Pilot Study: A pilot study was done over one week where 5 nurses have included it. Assessment of the knowledge and skill of the recruits of the project was done. The tools were modified based on the expert's opinion (Nursing Heads of the departments). Validity and reliability: Content validity of the instrument was established with the guidance of experts of medical and nursing faculty in this specialty. The investigators obtained permission to carry on the study from the IRB of C.M.C, Vellore. Prior permission from the nursing superintendent. The Heads of the department were also be informed about the study.

One group of inductees were selected as the control group (Who had undergone one week of conventional induction programme without skill training and preceptor's guidance) comprising of 80 nurses. These nurses are not exposed to the structured induction programme also they did not have mentors and preceptors to guide them. They have explained the purpose of the study and their written consent was obtained. Their knowledge and competencies in the selected nursing care practice were assessed using a questionnaire with 50 questions and a checklist for practice with 50 observational items. Their demographic features such as Demographic characteristics consist of details such as the name of the staffage, sex, basic qualification, institution trained (mission /private), years of experience, marital status, number of children they have. These new recruits (80 nurses) who were recruited from the month of July will be selected for the experimental group. Before they were placed in the wards they were exposed to the structured induction programme which was for two weeks, they had skill demonstrations in the selected nursing skills by the Nurse Managers who served as mentors, these mentors demonstrated the selected nursing care skills, ensuring the return demonstration of these skills. Skill lab was used for this purpose. The skill lab has manikons for demonstration of nursing procedures such as oral medications, parenteral drug administration, surgical dressing, back massages, intravenous infusions, blood transfusions, nasogastric tube feeds administration, etc. Once the two weeks structured induction programme got over, these nurses were posted to the wards and the ward in charge or head nurses were their

preceptors for 6 months period. The knowledge and the competencies on the selected nursing care skills were assessed in a similar manner as was done for the control group after 6 months on these experimental group staff members.

Recruitment in nursing service usually occurs once in 45 days. Around 20-40 nurses are recruited each time. The written consent was obtained from the experimental group staff members also after adequate explanation about the study.

The Study Setting: The study was conducted in the Nursing service CMC Vellore.

Population: Newly recruited staff nurses were the population.

Sample: Newly recruited staff nurses were the samples

Sample Size: 80 newly recruited staff nurses in each group, a total of 160 staff nurses. (The control and experimental group).

Sampling Technique: The non-probability sampling technique was followed as all the newly joining recruits were selected.

Criteria for Sample Selection

1. The newly recruited staff nurses who consented for the study
2. Outside trained staff nurses.

Exclusion Criteria

1. Newly recruited staff nurses trained in C.M.C who already had undergone extensive training.
2. Nurses recruited and posted under the project.

Data Collection Instruments

Part A: Demographic characteristics consist of details such as the name of the staffage, sex, basic qualification, institution trained

(mission /private), years of experience, marital status, number of children they have.

Part B: Consists of a questionnaire to assess their present knowledge on the selected nursing care comprising of 50 questions.

Part C: Consists of a checklist to identify their competency on selected basic nursing care. The checklist will have a minimum of 50 items.

Scoring Procedure: There will be scoring done to assess the knowledge and practice of nurses. A score of 1 was given for correct response and a score of 0 was be given for negative or wrong response for knowledge domain and for skill/practice domain a score of 0.5 was given if the procedure is done and 0 if not done. No score for NA.

Theory

80 -100 Excellent,
65- 80 Good,
50-64 Average
< 50 – Poor

Pilot Study: A pilot study was done over a period of one week where 5 nurses will be included. Assessment of the knowledge and skill of the recruits of the project will be done. The tools were modified based on the expert's opinion (Nursing Heads of the departments).

Validity and Reliability: Content validity of the instrument was established with the guidance of experts of medical and nursing faculty in this specialty.

Data Analysis: The data collected were arranged, analysed, and tabulated. Descriptive statistics such as frequency, mean were used to describe the demographic details. Descriptive statistics such as frequency, mean, standard deviation, and percentage will be used to determine the

level of knowledge and practice of the recruits.

Protection of Human Subjects: Ethical clearance was obtained from the college of Institutional review board. Permission will be obtained from the Nursing Superintendent. Written consent was taken from the staff nurses who will be studied. The study subjects were assured that all the data collected would be kept confidential anonymity will be maintained and would be ensured.

Study Findings: The nurses in the control group scored 60 % in the theory (knowledge) and 65 % in their clinical skills or practice prior to the induction programme and after the induction programme, there was an increase in the knowledge And practice in the control group not statistically significant (5%) but in the experimental group the pre and post-test scores revealed a statistically significant increase in the knowledge and practice after the induction programme ($P<0.01\%$) The increase in knowledge was 25% ($P<0.01\%$) and skill was 30% ($P<0.01\%$). The pre-induction scores for the experimental group for knowledge was 62% and practice was 64%. There was a significant association between the knowledge and practice of nurses in the demographic variables in terms of their years of experience in nursing, all other demographic features like their age, an institution they had their training, urban-rural areas of residence, gender did not have any significant association with their knowledge and practice.

Conclusion: The induction process provides a timely opportunity to welcome and support new team members to their team, department, and the Trust. It ensures that new members of staff understand how their

role contributes to achieving the hospital vision and strategy. It emphasises the culture and the values of the hospital. Informs new members of staff about the structure of the institution, the policies and procedures/practices that are in place. It also Clarifies the requirements, duties, and responsibilities of the role and ensures that the novice nurses have the knowledge and skills to perform their role effectively and therefore its imperative that every institution must have an induction programme for the novice nurses for the benefit of the individuals and the whole community at large. One of the authors had the opportunity to have a short time experience at the AFHSR, Saudi Arabia, and has found that the induction programme is very well structured there and of high standards and AFSHR has been a CIBAH and JCI accredited hospital and it's the best hospital in the Armed Forces in the Country.

References

1. <http://tmc.gov.in/medical/departments/nursing.html>
2. jessie.ferguson@beds.ac.uk
3. <http://rer.sagepub.com/content/81/2/201.abstract>
4. Bick C (2000) Please help! I'm newly qualified. Nursing Standard 5 (14): 44-47.
<https://doi.org/10.7748/ns2000.01.14.16.44.c2739>
5. Bradley S (1998) Prepared for practice? Exploring the experiences of newly qualified Project 2000, child branch staff nurses. NT Research (4): 292-301.
<https://doi.org/10.1177%2F174498719800300410>
6. Gerrish K (2000) Still fumbling along? A comparative study of the newly qualified nurse's perceptions of the transition from student to qualified

- nurse. Journal of Advanced Nursing 32 (2): 473-480.
7. Lee P (1997) What training do preceptors require? Journal of Clinical Nursing 6: 249-50.
 8. Maben J, Macleod Clark J (1998) Project 2000 diplomates' perceptions of their experiences of transition from student to staff nurses. Journal of Clinical Nursing 7: 145-153.
 9. Runciman P, Dewar B, Goulbourne A (2002) Newly qualified Project 2000 nurses in Scottish nursing homes: issues for education. Nurse Education Today 22: 593-601.
<https://doi.org/10.1054/nedt.2002.0779>
 10. http://www.who.int/hrh/documents/en/Assessing_quality.pdf
 11. dst.gov.in/aboutus/11th-plan/rep-csir.pdf
 12. <http://www.iocl.com/PeopleCareers/Recruitment.asp>
 13. <https://www.bfwh.nhs.uk/wp-content/uploads/2015/11/New-Starters-local-induction-v4-1.pdf>

How to cite this Article: Johnson M, Premkumar J, Chetty K; Effectiveness of Induction Programme for Novice Nurses at CMC Vellore, India; Int. Res. Med. Health Sci., 2020; (4-2): 1-10; doi: <https://doi.org/10.36437/irmhs.2021.4.2.A>

Source of Support: Nil,

Conflict of Interest: None declared.

Received: 2-1-2020; **Revision:** 24-2-2021; **Accepted:** 26-2-2021