MEASURING PERCEPTIONS OF THE CLINICAL CAREER PATHWAY IN A NEW ZEALAND HOSPITAL

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Abstract

Clinical Career Pathways (CCPs) for nurses were introduced in the 1970s and they were first established in New Zealand during the late 1980s. The implementation of CCP programmes has met with mixed response; many nurses view it negatively as an extra and unnecessary demand from their employers while others perceive it to be a valuable form of professional development. This paper introduces a new instrument, the Clinical Career Pathway Evaluation Tool (CCPET) designed to assess nurses' and midwives' knowledge of and attitudes towards their Clinical Career Pathway. The 51 item instrument takes the form of a self-report questionnaire in two sections. The first tests knowledge of the CCP, as implemented at the study hospital, the second measures attitudes towards CCP and professional development. In this paper we describe the development of the CCPET and present some of the results from an initial application of the instrument with 239 nurses and midwives in a New Zealand hospital. Results indicate that knowledge levels were moderate in this sample and were correlated with both positive and negative attitudes. Results of t-test comparisons indicated that, on average, the group who had already completed a CCP portfolio had greater knowledge and more positive attitudes than the group who had not. The authors suggest firstly that the CCPET is useful for measuring CCP knowledge and attitudes in a constantly restructuring nursing environment, and secondly that the instrument can be easily adapted for use in other hospitals and organisations.

Key Words: Clinical Career Pathway, knowledge, attitudes, nurses

Introduction

Nursing clinical career pathways were first developed in the 1970s in North America in response to the concern that experienced practitioners were leaving direct patient care in search of career fulfilment. Zimmer (1972) noted the lack of acknowledgement for skilled nurses within the system at that time, and the need for some form of recognition to be instated if regis-

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tered nurses were to be retained. She therefore proposed a framework for the recognition of nursing excellence consisting of three developmental stages: orientation to the setting; linking of previous experiences to current, similar experiences; and providing evidence of being able to handle complex situations and teach others. This framework made an important contribution to the development of Clinical Career Pathways in North America (Roberts, 1999).

A major impetus for a cohesive approach to the development of clinical career pathways came from Benner (1984) who presented an adaptation of the Dreyfus skill acquisition model to nursing. Based on interviews with nurses and observations of practice in positive patient care situations, Benner outlined five stages of nursing practice ranging from novice to expert based on the seven major nursing domains. These stages provided the theoretical basis for many of the Clinical Career Pathways as they are currently manifest (Buchan, 1997; Hine & Trim, 1996).

Following their initial development in North America Clinical Career Pathways have been introduced in Canada, Australia, Sweden, the United Kingdom and New Zealand (Buchan, 1997). In New Zealand, interest in Clinical Career Pathways (CCP) was promulgated by the then New Zealand Nurses' Association (NZNA) in the 1970s but it was not until 1987 that a working party was established to investigate the implementation of a CCP structure in this country. It was originally intended that a national pathway be introduced and the NZNA put forward a discussion paper on career development for clinical nurses (NZNA, 1991). Any action, however, was pre-empted by the 1991 Employment Contracts Act (Trim, 1998) which resulted in a change from a national nurses' contract to regional contracts negotiated within each Area Health Board. This localisation was applied to CCPs also and hospitals developed their own separate CCP structures. The significance of this move was a loss of opportunity to develop a nationally recognised pathway transferable across regions (Hine & Trim, 1996).

By the mid 1990s Clinical Career Pathways were well established within New Zealand (Roberts, 1999). A recent survey (Trim, 1999) revealed that 12 of the 16 public sector respondents have established CCPs, some of which have been in existence for up to 10 years, but with the majority being established in the last 6 years. Number of levels ranged from 3 to 5 with most having 4. The most recent trend has been to propose the development of a national framework for a generic CCP in order to enhance its transportability across organisations and to link the CCP to the Competence-Based Practising Certificates (CBPC) initiative currently being developed by the New Zealand Nursing Council (NCNZ). This initiative on the part of the NCNZ is in response to an international trend towards the monitoring of clinical competence in health professionals. This will become mandatory in NZ with the passage of the Health Professionals Competency Assurance

Bill expected in 2002. It is intended that all nurses who wish to be nationally registered will be required to hold a CBPC, the attainment of which will depend, at least partly, on clinical practice evidence similar to that required for a CCP portfolio. There is therefore an increasing urgency for nurses to develop and maintain professional development portfolios as required for them to take a place on a clinical career pathway.

At the hospital where the current study was situated, the Clinical Career Pathway is considered to be a framework for professional development with the aims of: providing structured support and learning for clinically based nurses; facilitating the development of clinical expertise in professional practice; and providing a process for recognition and reward of excellence.

The present initiative was launched in 1998 and the prescription document is reviewed annually. The pathway currently consists of 5 levels ranging from Level 1 (Advanced Beginner) to Level 5 (Advanced). Nurses/midwives are required to identify their own level of current practice, and then provide a portfolio of evidence demonstrating their attainment of a range of nursing competencies selected for that level. Evidence covers a range of information related to the previous 3 to 5 years of practice and includes:

* a curriculum vitae
* performance/management appraisals
* attestations or letters of endorsement reflecting nursing performance in a particular area and written to meet a specific competency
* peer letters of support for the applicant's practice
* exemplars or written examples of an event/experience that has made an impact on the nurse's practice or that of colleagues, clients or patients
* personal statements reflecting on practice, strengths and areas for improvement
* other appropriate evidence such as assignments, conference reports, care plans, certifications, published material, community activities and working party contributions.

Portfolio assessment for levels 1 to 3 involves one assessor (selected by the applicant from a list provided by the CCP Co-ordinator) presenting a recommendation to the CCP committee who make the final decision. Above level 3, two assessors plus the Director of Nursing are involved.

Current study

At this point, the number of nurses and midwives who, by having submitted a portfolio, are registered as being on the Clinical Career Pathway is still relatively small and there is a degree of stated resistance to the project. Consequently it was decided that a study to explore how much was generally known about the pathway, and to identify negative and positive views about the CCP and concomitant processes, would be useful for future education and planning.

Aims

The aims of the study therefore were to assess levels of knowledge about

the clinical career pathway at the study hospital and to explore whether knowledge was linked to attitudes towards it. We also wished to see whether CCP knowledge and attitudes were associated with participant characteristics such as duration of employment and whether or not a degree qualification was held. Specific hypotheses were that:

1. those who had submitted a portfolio would be more knowledgeable about the CCP and related processes than those who had not submitted a portfolio
2. those who had submitted a portfolio would be more positive about the CCP than those who had not.

A broader, and perhaps more important, purpose of the project was to use responses to both the knowledge and attitude questions to shape future education about the CCP presented to nurses and midwives at this hospital.

Method

Prior to commencing this project, an application was submitted to the regional ethics committee who classified the study as an audit not requiring ethical approval. However, usual research procedures were followed with respect to participants' rights, confidentiality, information and consent.

There were various ways in which initial information was collected. A questionnaire was designed, then pilot tested and finally used to collect the data for this project. Consequently the procedure for the initial discussions is covered in (a) and for the main data collection in (b) below.

Procedure (a)

Initial discussions were held with 12 nurses who responded to an email advertisement and flyers sent to each ward at the main hospital requesting people with strong negative or positive views about the CCP to take part in discussions with one of the researchers. Given the positions held by the other members of the research team, one being Professor of Nursing and the other the CCP Co-ordinator, it was thought that staff would talk more freely with a more independent person - namely the research assistant to the Professor of Nursing. Volunteers were provided with information about the study purpose and process and were assured of confidentiality. They were then interviewed at a time and place suitable to them. The points raised in the discussions were collated and a summary was sent to each participant for their information and verification. In brief, the main themes identified related to the CCP document itself and its purposes, assessment portfolios, the CCP process, attestations and evaluations, transportability across organisations, and the associated costs and rewards of participation in the CCP programme. This information formed the basis of a two part questionnaire.

Questionnaire

Part one consisted of 13 multi-choice questions designed to assess knowledge about the CCP at the study hospital. Three to six response options were offered, with a 'don't know' option being included for each

item. Part two included 38 statements about the CCP, the CCP process and professional development along with 6 response categories. For example, one of the statements was 'I don't have time to work on my professional development' and another was 'the competencies are clearly written and easy to understand'. Instructions specified that participants should indicate their level of agreement with each statement ranging from 'strongly agree' (1) through 'disagree, 'neither agree nor disagree', and 'agree' to 'strongly agree' (5). 'Don't know' was included as the sixth option. The first five options were subsequently used as ratings on a 5-point Likert scale. Of these 38 items, the first 23 applied to all participants, items 24 to 29 applied only to those who *had not* submitted a CCP portfolio and items 30 to 38 applied only to those who *had* submitted a CCP portfolio. For the former subgroup, the statements focused on issues related to perceived barriers to producing a portfolio (e.g. the money I would get at the end isn't worth the effort') and for the latter the statements focused on issues relating to whether the production of a portfolio had been beneficial or not (e.g. 'the process of producing a portfolio encourages reflection on practice'). In addition to the knowledge and attitude sections, demographic information regarding participants' sex, duration of employment, qualifications, and area of nursing practice was collected. A statement was included at the top of the questionnaire advising participants that completing the questionnaire implies consent to take part in the study.

Procedure (b)

The resulting questionnaire was sent out to nurses in two pilot wards for their comment and responses. As a result of this process only one question was amended, and that only slightly, so the pilot questionnaires were included in the main sample. The data collection involved 550 questionnaires being sent through the internal mail to individual staff members, along with a letter providing information about the study and requesting their involvement, and a return envelope.

Participants

In order to select participants the most recent list of nurses and midwives, arranged according to work location, was obtained. As we wanted to send out questionnaires to approximately half of the relevant staff, we randomly selected half of the staff from each ward/area to include in the mail out. This was achieved separately for each area by assigning each staff member in that area a number, putting cards with the numbers on them in a hat, mixing them up and then withdrawing half of them. The final sample consisted of 239 nurses and midwives, giving a response rate of 43.5%. Women made up 91% of the participant group and length of practice ranged from 3 months to 40 years with a mean of 16.6 years. Twenty percent had completed a CCP portfolio prior to filling out the questionnaire and 20.9% had a degree.

Results

The first aim of the study was to see how much was known about the CCP.

This was achieved by forming a knowledge score for each participant by summation of the number of correct responses to the 13 questions in Part One. The range of correct responses was 1 to 12 with a mean score of 6.91 and standard deviation *(SD)* of 2.25. The first hypothesis, that participants who had submitted a portfolio would be more knowledgeable about the CCP and related processes than those who had not submitted a portfolio, was tested by comparing mean knowledge scores across the two groups. The average knowledge score for those who had submitted a portfolio was 8.38 and for those who had not was 6.57. An individual samples t-test was performed and this difference was

Table 1: ***Statements in favour of the Clinical Career Pathway, responses expressed as percentages and mean scores (Ns = 230-237)***

Statement	Percentage response					Mean score
	1	2	3	4	5	
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
I am happy to spend time outside work hours preparing a CCP portfolio	30.9	34.3	10.6	20.8	3.4	2.31
I would be happy to spend time outside work hours preparing a CCP portfolio if the company provided some paid time as well	5.5	9.3	8.4	47.7	29.1	3.86
I believe that producing a CCP portfolio is useful for my career	8.5	13.6	19.5	40.7	17.8	3.46
I believe that submitting a CCP portfolio for assessment is useful for my career	8.9	17.5	20.9	40.4	12.3	3.30
The CCP would be a powerful process if all nurses 'got on board'	5.7	12.2	29.6	35.2	17.4	2.30

found to be significant (t = 6.34, df 91.95, p < .001). No significant correlation was found between knowledge and duration of practice and no significant difference in mean knowledge scores was found between those with and without degree qualifications. The imbalance in numbers of males and females in the group made comparisons on the basis of sex inappropriate.

The 38 attitude items were divided into three sets and analysed separately. The first set included the first 23 questions answered by all participants. Within these questions two themes were identified and subscales were formed on this basis. The first theme was supportive of the CCP in content and was labelled 'Pro CCP'. The subscale was generated from the combination of five items and the statements appear in Table 1 along with the percentage of participants in agreement and disagreement with them. The mean responses, calculated by analysing the response categories as a 5-point Likert scale, are also presented.

It can be seen from the responses to the statements that nearly two thirds (65%) of the sample were unhappy about spending time preparing a CCP portfolio outside work hours, but this dropped to 15% if some paid time could be contributed by the employer. Approximately 58% of respondents believed the production of a portfolio to be useful in career terms but this figure dropped marginally to 53% with respect to submitting a portfolio for assessment. Finally, nearly a third of this group were unsure about how powerful a process the CCP is, but many more agreed that it could be powerful if all nurses 'got on board' (53%) than not (18%).

When these five items were combined to form the Pro CCP subscale, scores ranged from 5 to 25 with a mean of 16.39 (SD = 4.45). The Cronbach's alpha reliability coefficient was acceptable at .83. Pro CCP scores were correlated with knowledge (r = .34, p < .05) and mean scores were significantly higher for those who had submitted a portfolio (18.81) than for those who had not (15.82, t = 4.78, p < .001). When mean Pro CCP scores were compared for those who have completed a degree (18.23) and those who have not (15.75), the difference was significant according to an independent samples t-test (t = 3.60, df 78.89, p < .01). No significant correlation was found between duration of employment and Pro CCP scores.

The second theme encapsulated negative views on the CCP process. A subscale was formed from seven items and the statements, response percentages and mean scores are presented in Table 2.

Responses to the statements in Table 2 indicate similar levels of agreement and disagreement with the notions that talking about yourself in terms of achievement and what you are good at is embarrassing. Nearly half of the group believed the CCP competencies to be too general and not suitable for all nursing areas and another 31% were undecided. The competencies were considered to be clearly written and comprehensible by 29% of participants. A large proportion of the

Table 2: ***Statements against the Clinical Career Pathway process, responses expressed as percentages and mean scores (Ns = 192-238)***

Statement	Percentage response					Mean score
	1	2	3	4	5	
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
I find it embarrassing to describe myself in terms of what I have achieved	14.4	27.4	16.9	28.3	13.1	2.98
I find it embarrassing to describe myself in terms of what I am good at	11.4	29.8	15.6	29.4	13.9	3.05
The CCP competencies are too general and don't suit all nursing areas	1.4	20.0	30.9	27.3	20.5	3.46
The CCP competencies are clearly written and easy to understand *	11.8	32.7	26.4	26.4	2.7	2.76
The portfolio assessors don't know what to look for if the individual's area is beyond their nursing expertise	2.1	26.6	40.6	25.5	5.2	3.05
I doubt the usefulness of attestations because they are collected from friendly colleagues	3.0	24.8	24.4	26.5	21.4	3.39
It is difficult to find suitable people to write attestations for you	2.2	33.5	26.1	24.8	13.5	3.14

* This item was reverse coded before being included in the subscale

group (41%) did not have an opinion on whether or not if the individual worked outside the assessors area of expertise, assessors would still know what to look for. Perhaps this was because many have not submitted a portfolio and so have not had first hand experience of the situation. The usefulness of attestations was doubted by nearly half of this sample, and 38% agreed on the difficulty of finding a suitable person to write them.

The seven items were combined to form the CCP Process subscale and scores ranged from 10 to 35 with a mean of 22.30 (*SD* = 5.17). The internal consistency was reasonable, as evidenced by the Cronbach's alpha of .78. The scores were weakly but significantly correlated with knowledge (r = -.18, p < .05), suggesting that people with more knowledge about the CCP process were more likely to have positive attitudes about it. No relationship was found between CCP Process and length of employment as a nurse or midwife. A second hypothesis for this study was that those who had submitted a portfolio would be more positive about the CCP than those who had not. To test this hypothesis a t test was performed to compare mean scores for these two subgroups. A significant difference was found with mean scores being 19.28 and 23.17 respectively (t = -4.35, df 61.92, p < .001). In addition, a significant difference in scores was found between those who have a degree (20.26) and those who do not (22.94, t = -2.33, df = 42.41, p < .05).

The second set of items was provided only for those nurses and midwives who were not yet started on the career pathway. As these items were all quite different in content, to have combined them would not have made sense conceptually. Thus they were kept separate. The third set of items was for participants who were already on the pathway, and a theme around the personal benefit of producing a CCP portfolio was evident in these statements. Accordingly, four items were collated into a subscale labelled CCP Benefits. As before, the statements are listed along with the responses they elicited, and mean ratings in Table 3.

Responses to most of these items revealed strong support for the CCP with 90% of participants agreeing that the process encourages reflection on practice and 77% feeling that the production of a portfolio was personally worthwhile. However, 40% felt that the financial and time costs involved outweighed eventual usefulness and nearly a third considered the satisfaction gained from its completion not to be worth the cost. Scores on this subscale ranged from 7 to 19 with a mean score of 14.43 and *SD* of 2.92. The Cronbach's alpha reliability coefficient was .70.

This scale was correlated with knowledge (r=.34, p < .05) but not with duration of employment as a nurse/ midwife. The results of an independent samples t-test showed that mean CCP Benefit scores were significantly higher amongst those who have completed a degree (16.08) than for those who have not (13.81, t = 2.81, df = 29.82, p < .01).

The three subscales were inter correlated as follows: Pro CCP was quite strongly negatively correlated with CCP Process (r = -.69, p < .001) and positively correlated with CCP Benefits (r = .76, p < .001); CCP Process was moderately, and negatively correlated with CCP Benefits (r = -.46, p < .001).

Discussion

The aim of this project was to develop an instrument to assess knowledge of and attitudes towards a nursing clinical career pathway at a New Zealand hospital. The instrument was developed with two purposes in mind. Firstly, it can be used repeatedly in the same hospital to assess shifts in knowledge levels and attitudes as the CCP evolves and the nursing climate and expectations change. Secondly it can be adapted by other organisations and institutions to assess nurses' understandings of their respective career pathways.

Table 3: ***Statements about the benefits of Clinical Career Pathway designed for those who have already submitted a portfolio, responses expressed as percentages and mean scores (Ns = 48-49)***

Statement	Percentage response 1 Strongly disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly agree	Mean score
The process of producing a portfolio encourages reflection on practice	0.0	6.1	4.1	63.3	26.5	4.10
Producing a portfolio was personally worthwhile	2.1	6.3	14.6	50.0	27.1	3.94
The costs in time and money outweighed its eventual usefulness *	2.1	33.3	25.0	25.0	14.6	3.17
The satisfaction gained from completing the CCP portfolio is well worth the effort it involved	6.1	16.3	8.2	55.1	14.3	3.55

* This item was reverse coded before being included in the subscale

The findings from its first application in a New Zealand hospital suggest that it makes a useful contribution to understanding what nurses know about the CCP and how they feel about it. We were able to develop a knowledge score and see how knowledge was related to demographic characteristics of the participants as well as to their attitudes. Levels of knowledge were surprisingly low, with a range of misconceptions being held about the CCP, its development and current process. Not surprisingly, we found knowledge levels to be higher in those who had completed a portfolio than in those who had not. It was also found that participants with higher knowledge scores were likely to hold more positive attitudes towards the CCP in general, see having done a portfolio as beneficial and feel less negative about the CCP process. If we assume that knowledge and attitudes are directly linked, and the correlation between them is not explained by their joint association with some other factor, there are two possible interpretations. It could be that people who make the effort to learn about the CCP and associated processes form more positive attitudes towards it and get involved, or that getting involved encourages people to feel more positively about it and they learn about the process along the way.

The implications of both these possible explanations are that we need to better inform nurses and midwives about the CCP if we want them to become involved. The results vindicate the value of accurate knowledge but pose a challenge as to how to impart information to an essentially resistant audience. Some ideas on improving attitudes towards the CCP as a concept were presented by Warr (1994) and, in view of the imminent Nursing Council legislation, it would be timely to revisit this issue from an organisational perspective.

Given that people who have completed a portfolio tend to feel more positive about the process, these people could be better used as a resource for modelling positive attitudes as well as providing practical help and support for those who feel daunted by the process of producing a portfolio. Participants expressed interest in working on their portfolios in groups and the inclusion of somebody who has already completed a portfolio would perhaps serve to further inspire and motivate people.

With respect to the second purpose of the study, the instrument has again proved to be of value in identifying areas of knowledge deficit, (bearing in mind that the average knowledge score was 6.9 out of a possible 13) and the attitudes nurses and midwives have towards specific and general aspects of the CCP, the portfolio, the process and professional development. The responses will serve to focus future education sessions with respect to the presentation of appropriate information about the hospital's CCP and to shape future versions of the portfolio and CCP process to accommodate staff expectations where possible.

Conclusion

Overall, the inaugural application of this measure of knowledge of and attitudes towards the CCP suggests that it is a useful instrument to measure both knowledge and attitudes and may be of interest to CCP co-ordinators and researchers in other nursing organisations in New Zealand. It has been demonstrated in letters to the editor in numerous nursing publications that the topic of CCP engenders strong feelings and hot debate. The impending passage of the Health Professional Competency Assurance Bill (probably by the end of 2002) increases the urgency for developing acceptable measures to record professional development and competence to practise. This study makes an initial contribution to moving beyond the debate and understanding the issues associated with CCP development for nursing.

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