GRADUATES' EVALUATIONS OF THE MASTER OF NURSING SCIENCE DEGREE PROGRAMME OFFERED BY THE UNIVERSITY OF BOTSWANA

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ABSTRACT

The Master of Nursing Science (MNS) programme offered by the University of Botswana needed to be reviewed so that it could be synchronised with prevailing trends within the university, nationally, regionally, and internationally.

The purpose of this customer satisfaction survey was to determine the extent to which these graduates' expectations had been met. The findings could provide ideas and inputs for reviewing this programme.

The population comprised graduates for the period 1998--2007. A questionnaire with closed and open-ended questions was used to collect data. A convenience and snowball sampling method was employed. Descriptive statistics and content analysis methods were used to analyse quantitative and qualitative data respectively.

Of the 53 respondents, 92.5% were females and 7.5% were males. These 53 returned the questionnaires, representing a response rate of 85.5%. Graduates were happy about the programme, but suggested some improvements. A summary of recommendations is presented, supported by relevant literature.

KEYWORDS: master's programme in Nursing (MNS) in Botswana, nursing education in Botswana, quality criteria of graduate nursing programmes

INTRODUCTION AND BACKGROUND INFORMATION

The Botswana Master of Nursing Science (MNS) programme prepares professional nurse clinicians who are able to provide leadership in the delivery of care that is responsive to the needs of the increasingly complex and dynamic society. The programme exposes learners to trends, prevailing issues, and emerging challenges in the delivery of healthcare, not only locally but also regionally and globally. The MNS programme commenced in 1996, with 11 students in the areas of adult health nursing and community health nursing. The programme has been offering specialties–adult

health nursing, community health nursing, psychiatric-mental health nursing, parent-child health nursing, and family nurse practitioner since 2008.

Student enrollment in the MNS programme fluctuated between one and eleven students per year over nine years (1996–2005), with an average of six graduates per year and a total of 62 graduates between 1998 and 2007.

A number of developments necessitated the review of the MNS programme so that it could synchronise with prevailing trends within the university, nationally, regionally, and internationally. At the university level, changes that challenged the relevance of the MNS programme included the phasing out of the BEd (Bachelor of Education) nursing degree. The B Ed graduates could enter the master's programme. The introduction of the BNS (Bachelor of Nursing Science) has meant that these BNS graduates who enrolled in the MNS programme lacked the research experience that the B Ed (nursing) students had mastered. Semesterisation of the programmes at the University of Botswana necessitated the contents of the year course to fit into a semester model.

Previously Botswana's nurses primarily depended on the government for graduate education funding. However, the current generation of nurses is self-supporting and opt for part-time studies so that they can continue working while pursuing graduate studies. The MNS programme needs to conform to global trends in nursing education so that its graduates will be internationally marketable. MNS graduates must be able to transfer or continue their studies across universities without any difficulties.

This customer satisfaction survey was developed to review graduates' satisfaction levels with the MNS programme. It was expected that the findings would reveal areas that needed to be improved.

PURPOSE OF THE SURVEY

The purpose of the survey was to determine the extent to which graduates of the MNS programme believed the programme had met their expectations. Specific questions that the survey addressed were the graduates' perceptions about the MNS programme's coursework (in terms of the relevance and quality of the content and quality of teaching); their satisfaction levels with the coordination of the programme; research supervision; the programme's personal, career, and professional impacts; the extent to which supporting structures such as the library, computing facilities, graduate school, and the School of Nursing meet the learners' expectations; and their overall satisfaction rating with the programme.

ORGANISING FRAMEWORK

The organising framework for the survey was derived from literature on the quality of graduate programmes (International Network for Doctoral Education in Nursing

[INDEN], 2004; National Task Force on Quality Nurse Practitioner Education [NTFQNPE], 2002; DeBourgh, 2003; Cowman, 2008; Kim, McKenna, & Ketefian, 2006). Six criteria were identified from the literature and adopted to provide a framework for the survey.

The relevance of content and quality of teaching

This section addressed graduates' opinions about the programme structure, learning experiences and the progression of students through the programme. It provided objective facts about the programme, that determine the quality of learning structures, processes and outcomes. Included under the attributes of the programme were the nature of enrollment (part-time versus full-time), actual versus expected programme duration, the coursework, the practicum and internship, research supervision, the nature of research work, the quality of teaching, the sequencing of courses, and the nature of funding. It is believed that all these factors could support or frustrate the learning experiences.

Graduates' experiences regarding the co-ordination of the programme

Programme co-ordination involves organising the learning experiences in such a way that core and supporting structures are in harmony.

Graduates' experiences with research supervision

Research supervisors are expected to guide and support each student throughout the research process. They are expected to be a major resource for students and assist them with selecting a research topic, supporting them throughout the research process, and providing them with feedback and encouragement. Supervisors should be available for students and provide mentorship, and share insights into research and other areas.

Effectiveness of faculty and the programme support structures

Faculty members must be able to guide students and be available for consultation. Support services, including library services, should enable students to carry out course assignments.

Impact of the programme on the graduates' role performance

The master's programme should prepare graduates for enhanced quality role performances after graduation.

Graduates' overall satisfaction with the programme

All components of the programme contribute to the students' impressions about the programme. Such elements include course offerings, quality of teaching, and availability of resources.

RESEARCH DESIGN AND METHOD

Research design, population, and sampling

The survey employed a descriptive research design with primarily quantitative questions, but also with a few open-ended questions. The population comprised all University of Botswana MNS graduates for the period 1998–2007. Sampling was convenient and graduates completed questionnaires.

Recruitment of respondents

A list of graduates was obtained through record reviews. Graduates who could be located assisted with the whereabouts of other graduates. Potential respondents were also reached through the Ministry of Health and through the Nursing and Midwifery Licensing Office. A note soliciting participation was attached to each questionnaire. Graduates were informed that their participation was voluntary and no coercion took place.

The data collection instrument

The data collection instrument was developed after a literature review on nursing graduate programmes; mainly focusing on the nature of programmes and their quality criteria (INDEN, 2004; NTFQNPE, 2002; De Bourgh, 2003; Cowman, 2008; Kim et al–2006) had been conducted. The first section addressed the demographic and personal characteristics of respondents, whereas the remaining two sections addressed graduates' perceptions of the MSN programme.

Section A covered gender, nationality, deployment, prior MNS qualifications and when and where such qualifications were obtained. Pre-MNS qualifications were considered important in that they might have influenced a student's learning outcomes and satisfaction with the programme.

Section B consisted of some nominal level variables but mainly of a 7-item scale (alpha .73) that measured participants' opinions about the coursework; 5-item scale (alpha .87) that probed participants' experiences with the programme co-ordination; 7-item scale (alpha .82) that asked about their experiences with research supervision; and 8-item scale that asked about respondents' experience with the overall programme.

Section C consisted of some nominal level variables but mainly of a 12-item scale (alpha .77) that measured participants' perceptions about the programme's impact on their personal, career and professional lives and a 24-item scale (alpha .92) that asked questions about their overall satisfaction with the programme.

Data collection

Data were collected through the use of questionnaires comprising closed and open ended questions. Questionnaires were hand-delivered, sent by e-mail or ordinary mail.

Data analysis

The Statistical Package for the Social Sciences (SPSS) programme was used to analyse data. Simple frequencies were computed for gender, nationality, type of job, field of deployment, employer and pre-MNS educational background. Simple frequencies, bi-variate correlations and simple regression statistics were used to answer the main survey questions. For qualitative data, participants' responses were subjected to content analysis, theme derivation and theme patterning and the results were used to validate the structured responses.

RESEARCH FINDINGS

Characteristics of the respondents

A total of 53 graduates completed and returned questionnaires, representing a response rate of 85.5%. The sample comprised 92.5% females and 7.5 males; 92.5% Botswana citizens and 7.5% non-Botswana residents. Participants' current occupations included teaching (39.6%), clinical work (18.9%), administration (24.5%), research (1.9%) and others (9.4%). At the time when they were enrolled in the MNS programme, their job assignments were teaching (28%), clinical work (43.4%), and administration (3.8%). Their field of work included nursing (71.7%), non-nursing but related to nursing (18.9%), non-nursing and unrelated to nursing (7.5%). Participants were employed by government (43%), parastatal organisations (7.5%), non-governmental organisations (3.8%), and self (3.8%). (See table 1).

Table 2: Respondents' demographic characteristics

Variable	Number	Percentage	Variable	number	Percentage
Gender: male female	3 50	5.7 94.3	Current work field Nursing Related to nursing Not related to nursing	 38 10 4	 71.7 18.9 7.7
Nationality: Botswana Lesotho Malawi Others	49 2 1 1	92.5 3.8 1.9 1.9	Current jobs: Teaching Clinical Administration Others	 21 10 13 6	 39.6 18.9 24.5 11.3
Current residence: Botswana Others	 50 3	 94.3 5.7	Pre MNS job Teaching Clinical Administration	 28 23 2	 52.8 43.4 3.8

Employer			Undergraduate education		
Government	43	81.1	Botswana		
Parastatal	4	7.5	Others	50	94.3
	2	3.8	Missing	2	3.8
NGO	2	3.8		1	1.9
	1	1.9			
Self-employed	1	1.9			
Others					
Retired					
Post basic diploma			Undergraduate thesis_Yes		
Yes	27	50.9	No	47	88.7
	26	49.1		6	11.3
No					
Deferred graduation	13	86.6	Nursing specialisation		
Research project	1	6.7	Midwifery	14	26.4
Course work	1	6.7	Adult health	20	37.7
Sickness			Psychiatry FNP	6	11.3
			Community	1	1.9
			health	12	22.6
Research experience	23	43.4	MNS sponsor		
Research	1	1.9	Government	50	94.3
proposal	29	54.7	Private	1	1.9
			Self	1	1.9
Literature review			Others	1	1.9
Completed research					
Research topic			Recommend programme		
Self selected	36	67.9	Yes	47	88.7
	6	11.3	No	5	9.6
Faculty assigned	11	20.8	Missing	1	1.9
Only one available					
Pursue specialisation			Recommend supervisor		
Yes	42	79.2	Yes	49	92.5
	11	20.8	No	4	7.5
No					

Worked with supervisor			Post MNS promotions		
Yes	49	92.5	New related job	4	7.5
No	4	7.5	Continued with old job	11	20.8
			Continued with old job with promotion	26	49.1
			Continued with old job with promotion within one year	12	22.6

MNS graduates' perceptions about the coursework (relevance of content and quality of teaching)

Out of a possible score of 7 on a 7-item dichotomous scale, the mean score for respondents was 4.45, which means that 64% of graduates agreed that the coursework met their expectations. Students appreciated positive interactions between faculty and students, especially where there was a collegial relationship and respect for individuality; faculty members who were committed and passionate; clinical practice-theory correlation; exposure to critical thinking and analytic skills; encouragement through the self-directed learning approach; opportunities for students to pursue their own interests (especially in research); flexibility of faculty members to accommodate both students' academic needs and social responsibilities; opportunities to participate in scholarly events; as well as the logical flow of all coursework.

The MNS graduates were unhappy about their clinical placements, course offerings and the quality of teaching. There were very few clinical experts, and this posed challenges to students' learning. Even those clinicians who supervised students were not formally charged with that responsibility; and the faculty's interaction with clinicians was irregular. One respondent said: "*Students had no identified clinical supervisors; they were at the mercy of any clinician who happened to be there*". Another respondent described the clinical placement as being "*left to chance*". Some of the clinical supervisors did not have basic nursing degrees, completed general nursing diploma courses and some were ex-students of the MNS students. The wisdom of expecting general diploma nurses to supervise master's students in their clinical placements was questioned. Also, the duration of the clinical exposure was reportedly too short.

Graduates indicated that the programme was overcrowded, with courses leaving little time for research. Many core courses left insufficient room for optional courses. Some courses were irrelevant to specific specialities; some were of a level too low for graduate students. Some courses did not add any value because they repeated content covered elsewhere.

Respondents reported that the quality of teaching was poor in terms of preparation and presentation of the content, and were unhappy about the lecturers' frequency of class attendance. They mentioned that some part-time lecturers should have been subjected to a stringent screening process (in terms of qualifications and experience for mentoring postgraduate students).

The respondents recommended that students' clinical placements be structured, with increased clinical time and using committed expert clinicians as preceptors. Varied clinical settings, including places outside the main city hospital and those outside the country, would help to expose students to different situations and modern technology. Coursework should be reduced and certain core courses should be taken by all students. Courses should be matched to the learners' needs, duplications should be avoided, and the contents of the courses should flow logically from each other. Students should analyse health issues at a macro level.

MNS graduates' perceptions about the programme's co-ordinators

The highest possible score on a 5-item dichotomous scale was 5 and the mean score for the sample was 3.7, representing 74% of agreement that co-ordinators fulfilled their duties. However, participants suggested that co-ordinators should work more closely with students.

MNS graduates' perceptions about research supervision

The sample had a mean score of 5.7 on a 7-item dichotomous scale with a possible score of 7; representing 81.4% agreement that research supervisors were performing as graduates expected. Respondents appreciated research supervision as supervisors were supportive and committed to their work, describing supervisors as being role models and having mentoring attitudes. Frustrations concerning the research project included that the supervisor advised that the research topic should be changed at a late stage and the unavailability of some supervisors who blamed students. The problem of ineffective supervision was compounded by the limited number of faculty per specialty area as this meant that students would not have alternative supervisors.

Respondents' perceptions about supporting structures

The sample had a mean score of 6.2 on an 8-item dichotomous scale with a possible score of 8. The mean score represents 77.5% agreement that the programme's learning facilities and its supporting structures met the expectations of the graduates. Participants appreciated the opportunity to select their research supervisors and committee; and those who were doing full research projects (as opposed to development of the proposal only) reportedly enjoyed their work. Reflecting on the entire programme and its supporting resources, participants requested more meaningful co-ordination and interaction of the department with the students' clinical agencies. Some frustrations related to inadequate mentorship in the department, over-reliance on part-time lecturers, limited opportunities for optional courses, and congestion in the clinical area, as well as inadequate library

resources. Participants recommended a greater diversity in faculty mix such that there should be several specialists in a given area. They also recommended that an internship should be built into the two-year programme and that coursework should include statistics.

Graduates' perceptions of the MNS programme's impact on their personal, career and professional lives

The mean score for the sample on the impact of the programme was 8.4 on a 12-item dichotomous scale with a possible score of 12. This represented 69.8% agreement that the programme had had a positive impact on the graduates' personal, career, and professional lives. A positive report on the impact of the programme included improved managerial skills, increased appreciation of research and development of research competencies, development of critical thinking and analytic skills, enhanced professional growth, expanded scope of thinking, enhanced creative thinking as well as compassion on the part of all involved.

Graduates' overall satisfaction with the MNS programme

The sample had a mean score of 34.6 on a 24-item 3-point Likert scale with a possible score of 48. The mean score represents 77.2% overall satisfaction with the programme.

Other analyses

Some respondents who rated the coursework high, also rated teaching/learning and the supporting structures high and scored high on overall satisfaction. Approximately half of those who rated the research project supervision high, also rated the programme impact high (rho=0.50) and scored high on the overall satisfaction with the programme (rho=0.45). Overall students' satisfaction levels correlated with the learning/teaching and supporting structures (rho=0.65) and with the impact of the programme (rho=0.64).

A regression of the graduates' overall satisfaction with the programme on the quality criteria variables showed a best fit with coursework, research supervision, and overall learning environment and its support structures. The graduates' satisfaction with the programme was best explained by experience with course offerings, and with research supervision, and the overall learning environment that together explained 72% of the variance.

CONCLUSION

MNS graduates had more to appreciate about the programme than to complain about. They acknowledged and appreciated the collegial relationship between faculty and students. They valued having their individual interests respected by faculty. These positive gestures about the MNS programme included the participants' appreciation of the teaching-learning process.

The MNS graduates believed that the following aspects should be improved: the clinical placements of students; lack of expert clinicians; absence of formally assigned preceptors; unchallenging learning situations; non-visibility of faculty in clinical settings; short duration of clinical exposures as well as a lack of co-ordination between the academic and clinical settings.

Courses should address the relevance and academic levels of some courses, the quality of teaching, and the redundancy of some content. They observed that the programme was overloaded with courses and that such a situation was compromising the students' opportunities to explore their specialty in-depth areas, and also limited their time for research. The course profile for MNS graduates showed that a typical MNS student completed 46–53 credit hours against the minimum of 36 credits required by the university for master's degrees in general. Graduate core courses comprised 16–22 credits, whereas specialty core courses ranged from 9–15 credits. One participant observed that she/he did not 'feel' she was specialising; she even felt that the in-depth interrogation was better in some elective courses than in the specialty courses.

Participants expressed concerns about part-time faculty members' standards of teaching.

RECOMMENDATIONS

The MNS programme should continue to be offered by the University of Botswana. MNS graduates believed that it had prepared them for coping with challenging responsibilities. They valued the research experience and the analytic and critical thinking competencies that played critical roles in their various job assignments. Participants pointed out that the MNS programme in Botswana was critical to the development of the country, as its graduates not only met the direct care needs of the nation but could also produce clinical preceptors for its future students.

Serious attention needs to be paid to clinical placements of students and the expected clinical hours must be stipulated, ensuring that the stipulated hours are comparable with those of programmes elsewhere. Expert clinicians should be preceptors for master's students. The university should recruit expert clinicians (not identifiable by credentials alone but also by a track record of quality performance and sustained service in the clinical area) to guide students in the clinical areas.

Additional settings for student clinical placements should be found and hospitals in Botswana's neighbouring countries, such as South Africa, could be considered for students' clinical experiences.

The research course should provide the students with ''hands on'' research experience that could help them appreciate the concepts explored in the theory course. Possible approaches to strengthening the programme's research component could include considering students' research supervision in determining the teaching load and staffing

establishment, increasing the number of research courses including research practicum and statistics and having students carry out research projects alongside course work.

There is a need to sort out course offerings such that all courses are grouped by major categories such as graduate core, advanced practice core, specialty core, and support/ optional core in such a way that there is some room for a student's own choices.

The quality of teaching should be enhanced and all staff members, including part-time staff members, should be screened carefully prior to appointment. A realistic staffing establishment should be established and maintained.

Future research should involve not only the master's programme's graduates but also currently registered students as well as full-time and part-time faculty members.

LIMITATIONS OF THE STUDY

Questionnaires were only completed by graduates of the master's programme. More information could have been obtained if these findings were compared and contrasted with those of currently registered master's students.

Faculty members were excluded from the research. Information obtained from both full-time and part-time faculty members could have rendered inputs from their perspectives, in addition to those of the graduates and students.

In-depth qualitative interviews with graduates, registered students and faculty members were not conducted. Such qualitative information could have been used to triangulate the data sources and might have produced different dimensions to the data.

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