Evaluation of an innovative curriculum: nursing education in the next century

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The present research focused on an interim evaluation of a new nursing curriculum made by first- and second-year undergraduates. Study 1 examined the assessments made by 90 students of the new, actual programme of their studies, as well as an ideal one, on 21 bipolar criteria reflecting the developing changes in health care practices and higher educational processes in western society. The results of study 1 indicated that students perceived the actual programme as compatible with health care changes, but lacking in terms of the learning process. Study 2 investigated the same assessments among 105 registered nurses who evaluated the traditional nursing programme under which they were trained as well as an ideal one. The results of study 2 showed that registered nurses perceived past curricula as lower than the ideal on both health care and process of learning. The results of this interim evaluation imply that the new nursing curriculum follows health care trends, but a shift in the educational process is required.

Keywords: curriculum, nursing, education, evaluation, health-care, baccalaureate

INTRODUCTION

New ideas involving curriculum essence and structure have emerged towards the end of the 20th century. As early as 1970, Alvin Toffler wrote: ‘... nothing should be included in a required curriculum unless it can be strongly justified in terms of the future. If this means scrapping a substantial part of the formal curriculum, so be it’ (Toffler 1970 p. 363). Such a statement fits well with the informational age characterizing present western society, with existing knowledge becoming obsolete at a fast rate. Thus, educators must develop a new philosophy to accommodate the rapid, unpredictable changes in educational objectives, processes and contents.

According to Toffler (1970), an innovative educational system should emphasise the diversification of data and the learning of behavioural skills, such as how to learn and relearn, how to relate and how to make choices. In a similar vein, Sarason (1993) refers to a variety of changes in education in parallel with current management transformations (Forester 1991). Prominent among these changes is a shift of focus from a curriculum-driven model to a model that focuses on: learners and the
creation of a climate for life-long learning; the cancellation of traditional student evaluation tools; and the integration of areas of learning through projects and themes.

The present work focused on the academic preparation of nurses, based on the premise that professional education should be aimed at preparing students for the future in their field of choice. A new trend in nursing curricula is described, with the aim of making preliminary assessments of both the need for and implementation of this curriculum.

THE BASIS FOR CURRICULUM CHANGE IN NURSING EDUCATION

Education in nursing is a complex subject, since it represents a mixture of theory that evolved in a variety of disciplines to be used and applied in health care settings (Cork 1987). The first schools of nursing established in London during the 19th century were connected to London hospitals, emphasizing ‘actual doing’ over ‘knowledge’, with an anti-academic bias (Jolley 1987). Social change has led to developments in nursing curriculum that include social science subjects in addition to medical education, and a new view of nurses in the role of health teachers has developed (Jolley 1987). Still, even during the 1960s, nurses were seen as totally dependent on the physician’s decisions (Larson 1995), and the nursing profession has been composed of the tasks of nurturing and caring for the physical well-being of the patients. During the late 1980s and the 1990s there has been a growing involvement of nurses in case management and community health promotion projects. These developing roles presented new demands in terms of knowledge domains and overall qualifications such as coordination, management and budgeting. Thus, today, the nurse role becomes a combination of patient advocate and manager or coordinator, with the needed skills of collaboration, cooperation and conflict resolution.

The new nursing roles have developed in accord with the current and expected changes in the health care system (e.g. Nugent & Lambert 1994, Oermann 1994, Booth 1995, Hegge 1995, Spitzer 1998). The health care system in the western world is one of the most complex systems known to contemporary society. No country today appears to be satisfied with the current state of its health care system; almost everywhere reforms are being contemplated, organized or implemented (Organization for Economic Co-operation and Development [OECD] 1994, Shani 1995). Behaving like a complex structure, the health care system is adapting by counterbalancing the current system of care with new values, institutions, patterns of practice and policies (OECD 1994, Pew Health Profession Commission 1995). The main health care trends are reflected in a growing dependence of the system on the resources of a primary care team; emphasis is being given to ambulatory care in community and home settings; the system is moving away from treatment and care in the direction of increased education, prevention and management; and there is focusing on populations while a commitment to the individual is still being maintained (OECD 1994, Pew Health Profession Commission 1995). Accordingly, management of community health, cost-effective care, health promotion and information management are some of the many required competencies of health practitioners in the future (see Larson 1995).

Furthermore, the required restructuring in nursing education is compatible with innovative mechanisms in academia (e.g. outcome-based education, competency-based demonstration and portfolio; see Hegge 1995). American higher education has shifted from a teacher-centred to a student-centred approach, and from content-based to process-based curricula. Such changes are aimed at the development of independence and critical thinking of students, and may prepare nursing students to deal with the complex and ambiguous aspects of future health care systems (Oermann 1994, Walton 1996). Thus, it is clear that the new trends in health care needs, as well as changes in educational philosophy, call for curriculum reform in terms of both content and process (see Booth 1995, Hegge 1995, Larson 1995).

A MAJOR SHIFT IN NURSING EDUCATION AND THE SETTING OF THE NEW PROGRAMME

The professional literature documents an increasing number of attempts to develop educational programmes that will fit futuristic changes in the health care system. However, there has not yet been a description of a total curriculum construction geared at preparing nursing professionals that will meet the challenges of the transforming health care system and be able to fulfil the new roles. The nursing department, examined in the present study, developed such a curriculum following a process of a major paradigm shift.

The setting

The nursing department described above opened its doors in October of 1995. The establishment of this department was based on a paradigm-shift process resulting from: (a) the growing awareness among nursing faculty of the transformations in the health care system and the mounting number of problems that can no longer be solved within the current paradigm; (b) the opportunity and obligation to develop a baccalaureate curriculum for preparing graduates to operate in the radically transforming health care system; and (c) the need to establish the relative advantages and distinct characteristics of such a programme.

The curriculum that was structured is geared to develop a nursing graduate who embraces a managerial, rather
than a clinical, professional identity. The central values of this graduate are humanism, health and quality. Her/his general competencies include self-learning, critical thinking, system diagnosis and intervention, containment of complexity, and decision making in highly uncertain situations. Among her/his new competencies are (on a beginning level): coordination, being an entrepreneur, managing change, marketing, strategic thinking, budgeting and control.

At this stage, only 3 years of the 4-year-curriculum have been applied. Of these 3 years, the impact of the first 2, which are considered to be the lower division, has been studied. These first 2 years included basic science courses (e.g. anatomy, physiology, chemistry); introduction courses in social sciences (e.g. psychology, sociology, organizational psychology); courses in interpersonal relationships; methodology courses (e.g. research methods, statistics and epidemiology); and two of the central nursing courses geared at generating the new graduate (introduction to health management, and health management A). No clinical practice was offered in these first years. Thus, the present study aimed at the evaluation of the new programme curriculum from its start.

STRATEGIES IN CURRICULUM EVALUATION IN THE HEALTH PROFESSIONS

The present research was concerned with the formative evaluation of the innovative programme, namely, it was performed in the intermediate stages of curriculum implementation (Wells 1987). The evaluation tool was based on the curriculum evaluation criteria of the health professions. We followed the SPICES model (Harden et al. 1984), composed of six strategies in medical education: (a) student-centred vs. teacher-centred learning; (b) problem-based learning vs. information gathering; (c) integrated vs. discipline-based teaching; (d) community-based vs. hospital-based education; (e) elective vs. standard programmes; and (f) systematic vs. opportunistic programmes.

If we divide curriculum evaluation into content and process, that is, what the students are learning and how their training is accomplished, then the SPICES model includes five (out of six) criteria which are concerned with the process of teaching and learning (i.e. a, b, c, e, f). Thus, the model lacks criteria related to the new trends in western health care. Therefore, we utilized an additional six dimensions suggested by Cusimano and Garg (1996), based on a survey by the World Health Organization (WHO) of innovative schools: (g) health maintenance and prevention vs. disease/acute care; (h) primary vs. tertiary care; (i) home/community-based vs. hospital care; (j) health of populations or community vs. health of the individual; (k) continuity of care vs. intermittent/isolated episodes of treatment; and (l) physical/biomedical vs. behavioural science.

The curriculum evaluations made in the present research were based on the dimensions that followed the SPICES and WHO criteria (Harden et al. 1984, Cusimano & Garg 1996), with the addition of several important dimensions that characterize the new curriculum, namely: (a) the relationship between the consumer/family, the illness and the health care system rather than just the relationship between the client/family and the illness; (b) diagnosis vs. the intervention stage; (c) the whole person with a special emphasis on psychosocial care rather than treating medical cases emphasizing physical care; (d) chronic vs. acute care; and (e) communication of the importance of psychosocial and managerial skills vs. the acquisition of these skills.

STUDY 1

The purpose of study 1 was to find out whether the new evaluated nursing curriculum is judged as compatible with the new trends in disease prevention and health promotion, and a move towards a community-based care. The major aim of the new nursing programme is forming a graduate who can manage complexity in health-related situations both in the community and in hospitals and can assure quality and cost-effective care to individuals, organizations and the community. The study thus investigated actual and ideal curriculum assessments of first- and second-year undergraduates educated according to the new nursing programme.

Method

Sample

Ninety students participated, 65 first-year students and 25 second-year students. These participants consisted of about 80% and 60%, respectively, of the enrolled students who attended classes when the assessment was made. Eighty per cent were women, five were married, and they had a mean age 21.68 years (SD = 2.13, range 18–28), with 42% born in Israel, 36% who immigrated to Israel between 1989–1992, and the rest emigrating between 1993–1995.

Questionnaires and procedure

The students were approached at the end of the academic year 1997, and asked to complete the questionnaires in class. The questionnaires were anonymous but included a social identification number that could be omitted if the student so wished. Data were analysed anonymously and collectively without reference to the individual’s ratings.

The first questionnaire consisted of 21 bipolar criteria for curriculum evaluation (see Table 1). Six of these characteristics were taken from the SPICES model (items 1, 2, 3, 4, 5, 7), and five were based on WHO criteria (items 8, 9, 10, 11, 12; see Cusimano & Garg 1996). We added eight criteria that were specifically relevant to students’
In addition, we asked students to evaluate their general marking the number that represented best the inclination to whether the programme was different from or similar to their own personal interpretation or understanding of it. Students were asked in the first evaluation task to their department curriculum on each criterion by bias. Students were asked in the first evaluation task to and the others to the right, in order to prevent response conservative poles appearing to the left of the continuum conservative vs. an innovative side, with some of the were separated by a 1-6-point scale, representing a future needs (items 20, 21). The two poles of each criterion 15, 17), and evaluation and tools development (items 16, 18) the whole person approach (items 14, 17), and evaluation and tools development (items 16, 19). The added dimensions were discussed and defined by a group of two nursing experts and two psychologists who teach in the new department. Finally, two criteria referred to whether the programme was different from or similar to other programmes, and whether it fitted with existing or future needs (items 20, 21). The two poles of each criterion were separated by a 1-6-point scale, representing a conservative vs. an innovative side, with some of the conservative poles appearing to the left of the continuum and the others to the right, in order to prevent response bias. Students were asked in the first evaluation task to assess their department curriculum on each criterion by marking the number that represented best the inclination of the department towards either the left or the right pole. In addition, we asked students to evaluate their general level of satisfaction with the department (1-9 scale; 1 = not satisfied at all; 9 = highly satisfied).

Following this first task, the same 21 judgements were made in relation to an ideal curriculum, that is, students were asked to evaluate an ideal programme according to their own personal interpretation or understanding of it. The first steps in data analysis included the transformation of reversed items, that is, items 1, 2, 8, 11, 12, 15, 18, 20 were transformed so that all items indicated innovation by a high rating of 6, and conservatism by a low rating of 1. This transformation was applied to both actual and ideal ratings. The alpha levels were 0.60 and 0.64, for actual and ideal programmes, respectively.

### Data analysis and discussion

In light of the fact that the research involved individual comparisons of 21 criteria, we used a conservative level of \( P \leq 0.01 \). Table 1 presents means and SDs of the ratings of the whole sample on actual (column 1) and ideal (column 2) curriculum, and mean difference scores (i.e. actual minus ideal score). Mean difference scores were also computed separately for first- and second-year students, but only one significant effect emerged out of the 21 comparisons. As can be seen in Table 1, eight criteria out of 21 show significant effects overall. Four of the overall differences are related to the process of teaching and learning (items 2, 3, 5, 6), the students’ evaluations suggesting that the actual programme is lower than an ideal programme on problem-focused learning and integrative teaching, as well as on elective courses and student participation. In addition, students thought that the actual programme as compared with an ideal one was relatively low on empathy skills tools, and on its relevance to future needs and changes (items 19, 21). Two significant differences are positive
were trained on traditional nursing programmes. Conducted, the participants being registered nurses that in order to achieve this purpose, the second study was conducted. The programmes of past nursing schools were rated as lower on future needs and changes than the ideal department curriculum that will best prepare students for their future roles.

STUDY 2

Study 2 had two aims: (a) the assessment of past vs. ideal nursing curricula, done by registered nurses, on both health care content and educational process; and (b) the comparison of students’ and nurses’ ratings in order to assess their similarities and differences in terms of actual/ideal discrepancies. Thus, registered nurses were used as experts on the required (i.e. ideal) changes in the nursing department curriculum that will best prepare students for future roles.

Method

Sample

The sample was made up of 105 registered nurses who finished school between 1965 and 1996, and had 2–32 years of experience as nurses. They were voluntarily enrolled in specific clinical courses, with 88% being women and mean age being 33±25 (SD = 7±44, range 23–55). Eighty-three were married and the rest single or divorced, with 53% born in Israel, 26% of them immigrated to Israel between 1990–1992 and the rest emigrated before 1990.

Questionnaires and procedure

The questionnaires were identical to those used in study 1, apart from the fact that the first curriculum evaluation referred to past programmes of nursing schools or departments. The past and ideal measures had alpha levels of 0·67 and 0·69, respectively. The nurses completed the questionnaires in classes during the first week of the course. The questionnaires included only a social identification number that could be omitted if the nurse so wished. Study 2 was conducted 4 months following study 1.

Data analysis and discussion

Table 2 presents the results of the dimensions rated by registered nurses. As can be seen in the table, 14 significant differences between actual and ideal programme assessments emerge, all differences being in the direction of the actual programme rated as more conservative than the ideal programme.

Hence, the programmes of past nursing schools were rated closer to the conservative approach to education in terms of process, that is, teacher-centred, information gathering and separate topics orientations as well as obligatory and pre-planned courses, and opportunistic clinical learning (items 1, 2, 3, 5, 6, 7, respectively), when compared with the ideal curriculum. In addition, these programmes were rated relatively low on contents that are related to health care changes such as community-based education, health and prevention, primary care, populations’ health and whole person approach, as well as performance assessment and empathy skills tools (items 4, 8, 9, 10, 14, 16, 19, respectively). Finally, these nursing education programmes were rated by the registered nurses as lower on future needs and changes than the ideal (item 21).
An additional support to the last finding is found in the
analysis of past and ideal ratings of the nurses after
subtracting from them the 3.5 middle point. The t-tests
showed that nurses’ ratings of their learning programmes
tended significantly towards innovation only on items 11,
14, 15, 16. These programmes were rated as tending
towards conservative ratings on items 1, 2, 4, 5, 6, 12,
13, 17, 18 and 21. Moreover, ideal ratings were, for 13
criteria, rated significantly towards the innovative pole
(items 1, 3, 5, 7, 8, 9, 10, 11, 14, 15, 16, 19, 21), with only
item 17 tending towards the conservative pole.

The overall rating scores had means of 3.31 (SD = 0.49)
and 4.02 (SD = 0.49) for past and ideal curriculum, respec-
tively (D = −0.72, SD = 0.74, t = −9.93, P < 0.0001). In
addition, nurses who rated their programme as more
innovative were more satisfied with it (r = 0.35, P < 0.001).

The correlations of demographic variables (i.e. sex, age,
father’s education, years of working experience in nursing,
and religiosity), with mean past and ideal ratings and their
differences were low and non-significant.

**Comparisons with study 1 results**

A comparison between the two samples’ ratings can
strengthen the case for innovation of the present nursing
curriculum. However, the two samples evaluated different
programmes that were implemented at different time
points. Therefore we focused on comparing the differ-
ences between ideal and actual/past programme ratings
on the 21 criteria. These comparisons showed that nurses
differ from students on items 1, 4, 8, 9, 10, 12, 14 and 20
(P < 0.01). Thus, students rate the actual programme as
relatively more student-centred, community-based,
focused on health and prevention, primary care, popula-
tions and community health, behavioural and social
sciences, whole person approach, and different from
other programmes, when compared with registered
nurses.

The comparisons between nurses and students on
overall scores showed that nurses differed from students
on the difference scores [M = −0.72 (SD = 0.74) and −0.34
(SD = 0.56), t = −4.02, P < 0.0001], the difference eman-
ating from a large disparity in past/actual ratings
[M = 3.31 (SD = 0.49) and 3.65 (SD = 0.38), t = 5.43,
P < 0.0001], but not in ideal ratings (M = 4.02 (SD = 0.50)
and 3.99 (SD = 0.46), t < 1).

Registered nurses were significantly older than students
as would be expected (mean age = 33.25 (SD = 7.44) and
21.68 (SD = 2.13), respectively, P < 0.0001). No significant
differences between students and nurses were observed on
either male/female distribution, or religiosity. Analysis of
covariance (ANCOVA), with age used as covariate, showed

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**Table 2** Registered nurses mean ratings (and SDs) of past and ideal nursing curriculum

<table>
<thead>
<tr>
<th>Item</th>
<th>Past</th>
<th>Ideal</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Teacher-centered/student-centered learning</td>
<td>2.85 (1.27)</td>
<td>3.90 (1.32)</td>
<td>−1.03*</td>
</tr>
<tr>
<td>2. Information gathering/problem-focused</td>
<td>3.12 (1.29)</td>
<td>3.70 (1.27)</td>
<td>−0.53*</td>
</tr>
<tr>
<td>3. Separate topics/integrative teaching</td>
<td>3.56 (1.24)</td>
<td>4.34 (1.25)</td>
<td>−0.84*</td>
</tr>
<tr>
<td>4. Hospital-based/community-based education</td>
<td>2.93 (1.29)</td>
<td>3.73 (1.23)</td>
<td>−0.81*</td>
</tr>
<tr>
<td>5. Obligatory/elective courses</td>
<td>1.97 (1.36)</td>
<td>4.03 (1.33)</td>
<td>−2.06*</td>
</tr>
<tr>
<td>6. Pre-planned courses/student participation</td>
<td>1.89 (1.30)</td>
<td>3.85 (1.48)</td>
<td>−2.03*</td>
</tr>
<tr>
<td>7. Opportunities clinical/planned clinical learning</td>
<td>3.68 (1.77)</td>
<td>4.56 (1.15)</td>
<td>−0.88*</td>
</tr>
<tr>
<td>8. Disease and acute/health and prevention</td>
<td>3.34 (1.28)</td>
<td>4.27 (1.20)</td>
<td>−0.93*</td>
</tr>
<tr>
<td>9. Tertiary care/primary care</td>
<td>3.20 (1.43)</td>
<td>4.02 (1.19)</td>
<td>−0.84*</td>
</tr>
<tr>
<td>10. Individual’s health/populations or community</td>
<td>3.49 (1.33)</td>
<td>4.24 (1.12)</td>
<td>−0.79*</td>
</tr>
<tr>
<td>11. Isolated treatment stages/treatment management</td>
<td>4.17 (1.35)</td>
<td>4.37 (1.39)</td>
<td>−0.24</td>
</tr>
<tr>
<td>12. Life-biomedical sciences/behavioural and social</td>
<td>3.09 (1.13)</td>
<td>3.32 (1.08)</td>
<td>−0.19</td>
</tr>
<tr>
<td>13. Acute cases focus/chronic cases</td>
<td>3.25 (0.96)</td>
<td>3.55 (1.08)</td>
<td>−0.33</td>
</tr>
<tr>
<td>14. Treating medical cases/whole person approach</td>
<td>4.35 (1.34)</td>
<td>4.78 (1.12)</td>
<td>−0.40</td>
</tr>
<tr>
<td>15. Separating consumer, illness and family/dynamic</td>
<td>4.17 (1.43)</td>
<td>4.56 (1.29)</td>
<td>−0.40</td>
</tr>
<tr>
<td>16. Job doing/job doing and performance assessment</td>
<td>4.27 (1.29)</td>
<td>4.84 (1.12)</td>
<td>−0.58*</td>
</tr>
<tr>
<td>17. Consumer treatment/consumers and system</td>
<td>2.74 (1.26)</td>
<td>2.84 (1.35)</td>
<td>−0.09</td>
</tr>
<tr>
<td>18. Treatment stage/diagnosis stage</td>
<td>3.04 (1.19)</td>
<td>3.34 (1.07)</td>
<td>−0.28</td>
</tr>
<tr>
<td>19. Empathy importance/empathy skills tools</td>
<td>3.60 (1.29)</td>
<td>4.41 (1.29)</td>
<td>−0.82*</td>
</tr>
<tr>
<td>20. Programme similar to others/different programme</td>
<td>3.46 (1.33)</td>
<td>3.58 (1.37)</td>
<td>−0.13</td>
</tr>
<tr>
<td>21. Existing needs; changes/future needs; changes</td>
<td>3.17 (1.26)</td>
<td>3.89 (1.18)</td>
<td>−0.74*</td>
</tr>
</tbody>
</table>

Note: N = 91–103; * P ≤ 0.01.
The complete questionnaire can be obtained from the authors in either its Hebrew or English version.
results that were similar to those found in the simple comparisons.

**GENERAL DISCUSSION**

The present study was aimed at assessing the compatibility of a new academic nursing curriculum with the new trends in the health care system and educational philosophy, and the extent to which the new programme represented an innovation in the field of nursing education. To achieve these aims, actual and ideal curricula evaluations were done by students enrolled in the new programme. Experienced registered nurses trained in traditional nursing schools made similar evaluations in regard to their past programme of training.

**Compatibility of the evaluated curriculum with new trends in health care**

The main question examined in the study was whether the evaluated curriculum is compatible with future requirements of the health care system. This was examined by exploring students’ and nurses’ ratings of the curriculum in which they are/were trained, and their ratings of the ideal nursing curriculum.

The results suggest that the evaluated new curriculum is indeed more compatible with future trends in the health care system than previous nursing curricula: students evaluate the actual curriculum as closer to the ideal when health-related issues such as community health or primary care are evaluated. Furthermore, since students’ and nurses’ evaluations of the ideal curriculum are similar, the large discrepancy between past and ideal curricula among nurses results from their lower evaluations of the past curriculum when compared to those of students.

It could be argued that students’ conception of the ideal nursing curriculum does not necessarily reflect the requirements of the health care system since they are inexperienced in the nursing job. Nevertheless, the similarity between their evaluations of the ideal curriculum and those of experienced nurses suggests that they have a reality-based perception of the expected changes in the health care system. Experienced nurses may be more adequate judges of the ideal curriculum, as their awareness of their training needs is shaped by job requirements. The results, indeed, suggest that nurses are sometimes aware of the discrepancy between health care needs and the contents of their education. Furthermore, nurses’ ratings of the ideal nursing curriculum are likely to reflect direct on-the-job experiences that are likely to affect their perception of the ideal content of a current nursing curriculum. Thus, for example, not being provided with sufficient information and skills related to community health is likely to present a problem for many nurses who have already been required to perform community health care activities. Process-related evaluations, however, are likely to be based on a more generalized impression of the changing health care system. Thus, perceiving the system as becoming more complex and ambiguous might stimulate the need for an integrative teaching method.

On the whole, the compatibility between the new and ideal curricula on the various aspects of health care suggests that the evaluated programme is perceived as providing students with knowledge related to the trends towards community-based care and health promotion (see Larson 1995), as well as required skills such as case management (Hegge 1995).

**Innovation in the evaluated curriculum**

The results suggest that the new curriculum, on the whole, was perceived by students as characterized more by innovative features, such as community-based teaching, than by traditional ones such as hospital-based teaching. This conclusion is based on analyses in which the distance of each rating score from the midpoint was estimated, assuming that the direction of the deviation from the midpoint represents either a conservative or an innovative trend. More impressively, experienced nurses evaluated the nursing programme under which they were trained as more traditional than innovative on almost all dimensions.

A close inspection of the results shows that the dimensions on which the new nursing programme was evaluated as more traditional than innovative are related to the process of teaching rather than to the content of the courses: Students feel that, in regard to their participation in the development of the courses and the opportunities they have for selecting courses, the curriculum is traditional. This differentiation between the process and the content of the curriculum was also identified in the comparison of the curriculum with an ideal programme, and will be discussed below.

**Evaluations of content- and process-related dimensions**

Students evaluated content-related dimensions of the curriculum as more innovative than traditional, and as compatible with the ideal nursing curriculum. Several aspects of the process of teaching, however, are perceived as more traditional than innovative and as less compatible with the ideal curriculum. These aspects are mainly related to students’ involvement in the development of courses and their freedom of choice of courses. This finding is not in accord with either the present philosophy of education (e.g. Doll 1993, Sarason 1993), or with the specific skills such as critical thinking and the ability to integrate and innovate, that are deemed necessary for
successful performance in the nurse’s new role (see Oermann 1994, Hegge 1995).

The discrepancy between the innovation in the content of the curriculum and the more traditional nature of the process of teaching reflects a basic dilemma inherent in the development of the curriculum. On the one hand, the department should provide the students with all the necessary knowledge and skills for future roles, and on the other hand, certain essential skills such as critical thinking, management and coordination, should be developed through flexible teaching methods.

Presently, the first 2 years of the nursing programme consist of a large number of introductory courses. Thus, in the first 2 years the extent of material that should be covered makes it difficult to encourage participation in the development of the programme or to offer a more eclectic curriculum. However, the purposes of the innovative curriculum can be achieved only if they are expressed in the process of teaching as well as the content. Preparing nurses for coping with a complex, uncertain and dynamic health care system cannot be achieved only through a highly structured and pre-planned curriculum. Thus, it is expected that more flexible and integrative learning will be a strong characteristic of the later 2 advanced years.

In sum, the results of the present research indicate that students evaluate their actual curriculum as more innovative and more compatible with changing health care trends than experienced nurses. Innovation in the evaluated curriculum is not an aim in itself, but rather a means for achieving the purpose of qualifying students for functioning in the new health care system. These results suggest that the basic goals generating the evaluated curriculum were indeed achieved.

Methodological limitations and suggestions for future research

In the present study, a convenience sample of experienced nurses retrospectively evaluated their past curricula. In future studies it is desirable to examine a representative sample of nurses that will evaluate the actual new curriculum of the department under study. Such evaluation research will benefit from the experience of nurses, without the biases that might characterize retrospective evaluations. Furthermore, the evaluation of the department was done by students during the implementation of the new programme. It will also be enlightening to study the students following graduation and a few years of experience in the field, and find out to what extent their experience-based perceptions match the new curriculum.

A final note

The educational system that directed curriculum building in the last three centuries has been characterized by order, authority and simplicity. It has been a linear, sequential system, including predictability and control as its key elements (Doll 1993). Today, new educational principles are emerging that define more complex, pluralistic and unpredictable systems. Furthermore, these changes in education are compatible with the new trends in health care: the fast and unpredictable demands that challenge the professionals in health promotion and disease prevention call for flexible and critical thinking, an ability to face ambiguity and complex systems, and the capability of going through different roles during one’s life career. Thus, following Doll (1993), the curriculum should offer multiple possibilities and interpretations, develop the ability of the student to make combinations and social interactions, and make him/her active in searching for different alternatives, relations and connections. The present innovative curriculum aims to achieve such purposes, and students’ evaluations will help to shape it, so that the nurse graduates of this programme will be well trained to cope with their new roles. To sum up, ‘it is only through rational planning of curriculum innovation that nurses will be able to initiate successfully, respond to, and manage change’ (Docking 1987 p. 162).

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References


