



An exploratory study identifying the programme related stressors amongst qualified nurses completing part-time degree courses

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Accepted 23 October 2006

KEYWORDS

Programmatic stress;
Nurse education;
Age related stressors

Summary The aim of this paper is to explore the leading programmatic stressors and associated age related stressors experienced by two cohorts of students ($n = 132$) completing part time degree programmes in nursing in two third level institutions in the Republic of Ireland.

To date the literature has exclusively focused on the day to day stressors that undergraduate nursing student's experience.

The design chosen was descriptive utilising a questionnaire as the mode of data collection. 'Preparing assignments for submission', 'trying to balance work commitments and the required study', 'doing the course assignments', 'the demands of writing an assignment to the necessary level', the prospect of the final examination' and 'preparing for the course examination' were all ranked as the leading stressors. The younger participants in this study were more likely to register higher degrees of stress as a result of the process stressors of their studies owing to the negative correlation with age. Process stressors were associated with the academic workload and time management difficulties.

The findings have wider implications for educationalists in relation to course development and ongoing student support. Educationalists need to be cognizant in particular of the age related stressors associated with completing part time degree programmes.

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Introduction

In order to provide optimal care for patients and clients, many nurses and midwives strive to meet the professional and clinical requirements of their jobs by undertaking formal professional development programmes. Such programmes are increasingly required (An Bord Altranais, 2005) to be academically validated and to award academic credits that contribute to individual nurses progression pathways. That stress is associated with student participation in academia has long been recognised (Evans and Kelly, 2004). As stress can disrupt physiological and psychological health (Sarifino, 1998), it is important to explore both causes and effects of academic stress amongst the nursing workforce and this report aims to contribute to discussion by investigating the effect of student age upon stressors and stress responses amongst post-registration students in two third level educational institutions in the Republic of Ireland.

Background/literature

The leading stressors isolated amongst pre-registration nursing students include; examinations and the level and intensity of academic work load (Evans and Kelly, 2004; Timmins and Kaliszer, 2002; Lo, 2002). Pressure of work in terms of preparing for examinations and acquiring professional knowledge, skills and attitudes were reported as the most stressful aspects of medical training (Radcliffe and Lester, 2003). Similarly Everly et al. (1994) reported academic issues such as examinations and the amount of class work as the leading stressors among occupational health students. Nichol and Timmins (2005) explored the programme related stressors experienced by registered nurses ($n = 70$) undertaking a part time degree course. Balancing work commitments with study and the prospect of the final examination were items with the highest stress ratings. Other potential stressors included work load, completing assignments and the demands of writing at the necessary academic level. However, while academic stressors are of consistently high ranking in studies associated with nurse education at diploma level, finance, family and health stressors have also been identified (Lo, 2002; Jones and Johnston, 1997).

Dowswell et al. (1998) explored motivational factors influencing participation in post-registration degree courses within a group of health care professionals that included nurses. Negative feel-

ings about themselves and their professional status influenced students towards participating in further studies. Negative impacts upon home and family life were associated with participation in degree courses.

In relation to age, academic work has been demonstrated as a greater challenge to younger student nurses completing undergraduate studies, owing possibly to their limited coping ability and assertiveness skills (Ofori, 2000). Richardson (1995) found that motivational factors and prior life experiences endorsed a deeper approach to learning for mature students as they view education as a catalyst for change in their lives. They may also experience a tremendous pressure to succeed (Shanahan, 2000). Glackin and Glackin (1998) identified that issues such as finance, family commitments, academic study, difficulties in adaptability and speed of learning are problems that continue to present for older students.

The literature to date has focused predominantly on identifying and measuring student nurse stress at pre-registration stage. Only one study has described the stressors experienced by part time degree students undertaking studies in a university in the Republic of Ireland (Nichol and Timmins, 2005). Anecdotal feedback from an Irish perspective suggests that stressors such as getting time off to attend a course and financial difficulties create stress for qualified nurses. There is, however, a dearth of literature exploring the possible relationship between age and associated stress applicable to this population of students. The primary focus of this report is therefore to explore the types of age related stressors part time degree students experience during their academic lives. McKay (1978) acknowledged the importance of "tuning in" to students, asking them for assistance in understanding the educational process as perceived from their perspective. This is a timely initial step in attempting to explore the everyday realities of student life during the present period of change in the structure and delivery of Irish nurse education.

The study

Study aim

The aim of this study is to explore the age related stressors experienced by two cohorts of students ($n = 132$) completing part time Honours Bachelor Degree In Nursing programmes in two third level institutions in the Republic of Ireland. Research

questions were formulated following review of the literature. These questions are detailed below:

- What are the predominant stressors qualified nurses and midwives experience while completing part time Degree courses.
- Is there a relationship between student age and the stressors experienced by qualified nurses and midwives who are completing part time Degree courses.

Design

The design chosen was descriptive exploratory utilising a questionnaire as the mode of data collection.

Participants

Convenience sampling was the sampling method chosen. Two cohorts of students from two third level colleges in the Republic of Ireland were selected. Seventy (out of a 90-student cohort) and 62 (out of a 75-student cohort) were present on the day of data collection in the final week of the programme. Both groups of students were registered nurses completing part time Honours Bachelor Degree in Nursing programmes of studies.

The two cohorts of students chosen attended 1 day per week for a period of 26 weeks. Assessment strategies for both programmes comprised of presentations, written assignments, and examinations.

Data collection

Nichol and Timmins (2005) constructed a reliable questionnaire to measure and identify the stressors that are prevalent amongst nurses who are studying at part time degree level. Given that the questionnaire was consistent with the study aim it was therefore employed.

The tool contains 45-item with three sections. Section 1 includes demographic data about the students. Section 2 contains 39 items concerning four specific areas known to cause stress to part time students. This section was subdivided into four categories related to the structure, process and product of the programme and personal individual items. All items in this section of the questionnaire were in Likert scale format type along five characteristics (1 = no stress, 2 = a little stress, 3 = moderate stress, 4 = a lot of stress and 5 = severe stress). The third section of the questionnaire comprised of open-ended questions which provided the

student with an opportunity to list any further programme related stressors that they experienced which were not included in Section 2 of the questionnaire.

Ethical considerations

The study was approved by the research ethics committees in both institutions. Three to four weeks prior to data collection both student cohorts were given verbal information about the study in question in order to maximise informed consent. An outline of the study and method of data collection were discussed and student agreement to become involved in the study was sought. When the data was subsequently collected all students were reassured that there was no obligation for them to participate. Completion of the questionnaire by the participants was taken as consent to take part in the study.

The questionnaire was distributed to both student cohorts on the final week of the programme and it took 20 min approximately to complete. A written letter outlining the background and aim of the study along with instructions on how to complete the questionnaire were also included in an accompanying letter. It was reemphasised to all students that participation was voluntary and refusal to complete the questionnaire would not impact on progression in the course.

Data analysis

Descriptive analysis was completed utilising the Statistical Package for the Social Sciences (SPSS). A MANOVA test was used to identify were there significant differences between sites in their responses to the questionnaire. Where significant difference did not exist Spearman's rank order correlation coefficient was employed as an appropriate correlation tool to explore relationships between age and the stress sections in question. The coefficient alpha of internal consistency for the stress questionnaire was 0.94, which indicates satisfactory reliability.

Findings

Characteristics of the subjects

Ninety-four percent of the student sample were female (Table 1.1). While the majority (64%) were between the ages of 20–30 years of age, 47

Table 1.1 Gender distribution of candidates

	Number of respondents	%
Male	8	6
Female	123	94
Total number	131	100

Table 1.2 Age distribution of candidates

	Number of respondents	%
20–30 years	84	64
31–40 years	31	24
41–50 years	14	11
Over 51 years	2	1
Total number	131	100

students (36%) were 31 years or older and therefore classified as mature (Table 1.2).

Ranking of stressors

The mean result in ranking order of each stress item is presented in Table 2. 'Preparing assignments for submission' had the highest mean score (mean = 4.05, SD = 0.864). Other stress items identified in the top five included; 'Trying to balance work commitments and the required study' (mean = 4.01, SD = 0.953), 'Doing the course assignments' (mean = 3.94, SD = 0.808), 'The demands of writing an assignment to the necessary level' (mean = 3.90, SD = 0.956), and 'The prospect of the final examination' (mean = 3.90, SD = 1.04).

Three stress items were assigned little or no stress response owing to their overall means results scoring less than two. These included 'Relationships with lecturers', 'The start time of the study day' and 'Travelling to attend the programme' (Table 2).

Stress distribution

Table 3 reports the distribution of the top 10 ranked items according to mean score. Ninety-four percent of respondents reported; moderate to severe stress in relation to the top stress item 'Preparing assignments for submission'. 'Trying to balance work commitments and the required study' (the second highest mean stressor) scored only marginally less with 93% reporting moderate to severe stress.

Twenty-four percent of the student group reported severe stress and over half (51%) reported a lot of stress when 'Doing the course assign-

ments'. Conversely however 32% of students reported severe stress and 34% reported a lot of stress in relation to 'The demands of writing an assignment to the necessary level'. 'The prospect of the final exam' had a broadly similar stress distribution with over a third of the students (36%) identifying that this item caused severe stress and 32% reporting a lot of stress. Forty-five percent of students reported a lot of stress in relation to 'course workload'. 'Personal time management' and 'studying at degree level' had a similar distribution with 35% of students reporting a lot of stress and 18% percent reporting severe stress.

Age and programmatic stress

The two sites in this study were analysed to explore was there any significant differences in their responses to the stressors identified. The four subsection (programme structure, programme process, programme product and personal issues) cumulative mean scores were tested with respect to site using a MANOVA test. Both sites reported significant difference in their response to the structural and product stressors associated to their programme of study. However the process and personal stressors of the respective courses generated no significant difference in the students' response. Subsequently age was then correlated with these two significant results. The process stressors of the courses were found to have a negative correlation with age at the 0.05 probability level (Table 4). The younger participants therefore were more likely to register higher degrees of stress as a result of the process stressors of their studies. The process items along with their overall ranking mean scores for the study are listed in Table 5.

The open-ended section of the questionnaire did not yield any other programmatic stress experiences.

Discussion

Programmatic stressors

This study was undertaken in order to inform educationalists about the circumstances of registered nurses who are completing degree programmes in the Republic of Ireland as they strive to juggle professional, personal, social and academic roles throughout the course of their studies.

Significantly the leading stressors isolated in this study support Nichol and Timmins (2005) earlier study findings. 'Preparing assignments for submis-

Table 2 Mean ranking stressors

		Mean	Standard deviation
1	Preparing assignments for submission	4.05	0.864
2	Trying to balance work commitments and the required study	4.01	0.953
3	Doing the course assignments	3.94	0.808
4	The demands of writing an assignment to the necessary level	3.90	0.956
5	The prospect of the final examination	3.90	1.04
6	Preparing for the course examination	3.85	1.01
7	The course workload	3.78	0.868
8	Keeping up with the work of the course	3.74	0.954
9	Personal time management	3.58	0.941
10	Studying at degree level	3.55	0.999
11	Academic writing required on the course	3.51	1.00
12	Trying to balance home commitments and the required study	3.50	1.19
13	Meeting the academic demands of the programme	3.44	0.962
14	Meeting personal needs while studying	3.36	0.998
15	My own standards of achievement	3.34	1.02
16	The level of writing skills required	3.27	0.995
17	Fulfilling my home responsibilities	3.17	1.18
18	Finding time to go to the library	3.17	1.03
19	Neglecting home responsibilities	3.12	1.19
20	Fulfilling my work/employment responsibilities	3.08	1.13
21	The theoretical level of content of the course	3.01	0.976
22	Adhering to course guidelines for assignments	2.93	1.00
23	Feeling that I have neglected work responsibilities	2.64	1.22
24	Perceived pressure to keep up with other students	2.64	1.14
25	Getting time off from work to attend	2.56	1.30
26	The finish time of the days	2.49	1.31
27	The required classroom contact hours	2.44	1.03
28	Lectures lasting more than one hour	2.31	0.997
29	Attendance at weekly study day	2.23	0.972
30	Paying/negotiating the course fees	2.22	1.34
31	The teaching methods cause me stress	2.05	0.876
32	Attendance at classes	2.03	0.901
33	The expectations of the other students in the course	2.03	0.960
34	Paying other course costs	2.01	1.105
35	Travelling to attend the programme	1.99	0.023
36	The start time of the study days	1.89	1.054
37	Relationships with lecturers	1.50	0.741

A score of four equals 'a lot of stress', three equals 'Moderate stress', two equals 'A little stress' and one equals 'No stress'.

Table 3 Percentage distributions of top ten ranking individual stress items

		No stress	A little stress	Moderate stress	A lot of stress	Severe stress
1	Preparing assignments for submission	0	6	17	44	33
2	Trying to balance work commitments and the required study	2	5	17	42	34
3	Doing the course assignments	0	5	20	51	24
4	The demands of writing an assignment to the necessary level	1	5	28	34	32
5	The prospect of the final examination	1	11	20	32	36
6	Preparing for the course examination	1	8	26	33	32
7	The course workload	1	6	28	45	20
8	Keeping up with the work of the course	1	10	25	41	23
9	Personal time management	1	11	35	35	18
10	Studying at degree level	2	12	33	35	18

Table 4 Age correlation with programme process stress

Spearman's Rank correlation coefficient	-0.238
Sig. (2-tailed)	0.008
<i>n</i>	125

Table 5 Process stressors associated with studying at part time degree level

Stress item	Overall mean score
Keeping up with the work of the course	3.74
Personal time management	3.58
Academic writing required on the course	3.51
Meeting the academic demands of the programme	3.44
Finding time to go to the library	3.17
The finish time of class	2.49
Lectures lasting more than 1 h	2.31
The teaching methods cause me stress	2.05
Attendance at classes	2.03
The expectations of other students on the course	2.03
The start time of class	1.89

Three equals 'Moderate stress', two equals 'A little stress' and one equals 'No stress'.

sion', 'trying to balance work commitments and the required study', 'doing the course assignments', 'the demands of writing an assignment to the necessary level', the prospect of the final examination' and 'preparing for the course examination' are all ranked as leading stressors. While examination stressors were ranked fifth and sixth in this study the findings are unique and demonstrate a shift in trends away from examinations being the prime academic stressor when compared to similar studies.

With increasing programme emphasis on continuous assessment, stress associated with continuous assessments, in the form of projects and assignments, has also increased. Three of the top four leading stressors are associated with completing assignments; 'preparing assignments for submission', 'doing the course assignments' and 'the demands of writing an assignment to the necessary level'. Gammon and Morgan-Samuel (2005) conclude that structured tutorial support

can be an influential variable in reducing student nurse stress, promoting self-esteem and facilitating more effective coping. While these findings are applicable to undergraduate students they have equal resonance across post registration courses.

These assignment stressors however cannot be viewed in isolation from 'trying to balance work commitments and the required study' the second leading stressor isolated in the study. Competing stressors are evident amongst this group of nurses as they attempt to juggle the academic demands of their course such as 'the completion of assignments' and their professional roles as staff nurses/midwives.

A leading stressor amongst students in this study included 'The demands of writing an assignment to the necessary level'. Two thirds of students reported this as a source of at least a lot of stress. Furthermore fifty three students reported similar levels of stress with the item 'studying at degree level'. Although Lindop (1999) unearthed similar type responses in academic stress levels when comparing pre- and post-project 2000 student nurses, no literature to date has explored the stressors amongst registered nurses and midwives associated with the academic transition from Diploma to Degree level. The findings in this study reflects a possible academic naivety on the students' part in relation to studying at degree level.

Nicklin and Kenworthy (2000) conjecture that arousal is essential for optimum performance, including learning but as stress mounts performance can deteriorate. While positive stress is integrally associated with many forms of assessment, unwanted stress linked to assessments that are poorly structured and sequenced can impact on a students' learning experience by generating negative stress. Conversely well thought out assessment procedures, can mould professionals who possess the skills of analysis, critical thinking, problem-solving and reflective practitioner (An Bord Altranais, 2000).

Practical considerations such as student workload, assessment strategies and assessment scheduling, should be taken into account to minimise the negative impact and stress that assessment in general may have. It is essential therefore that considerable time and care is given in the formulation and implementation of an appropriate assessment tool taking into consideration the demands that are on nurses within their unique role. This is in keeping with the philosophy that assessment should be a balanced, integrated and strategically planned (An Bord Altranais, 2000).

Age and stress

Age was found to have a negative correlation with the process issues surrounding academic studies. Five process items caused moderate stress amongst the participants overall. These included; keeping up with the work of the course, personal time management, academic writing required on the course, meeting the academic demands of the programme, and finding time to go to the library.

These findings reflect in particular two distinct but linked stressors that the younger profile of student may experience while studying a part time course at degree level. On one hand there are the academic stressors that the student is faced with and on the other the student is exposed to the stressors associated with managing their time effectively.

There is a mounting body of quantitative evidence that indicates that mature students attain higher level academic achievement than their younger peers (Murray-Harvey, 1993; Shanahan, 2000; Ofori, 2000). Given the unique academic stressors associated with process issues linked to younger age group of student in this study, it is understandable why academic achievement is not equivalent to their counterparts. Ofori and Charlton (2002) also point out however that younger students' lesser willingness to seek academic support, can also puts them at risk in relation to their performance.

Students aged greater than 31 years, appear to be less susceptible to the specific age related academic stressors isolated in this study. Factors such as having greater motivation (Richardson, 1995), and being assertive when interacting with academics (Brown, 1993) during their educational experiences may mitigate older students from the academic age related stressors isolated in this study. Steele et al. (2005) also point out that the inter-connections between educational, family and social spheres of life are integral to the experiences and outcomes of mature student participation in education.

There is a need therefore to ensure that a range of open learning support services both integrated and supplemental are offered (Timmins and Kaliszer, 2002) and are available in particular to the younger age group of student who are completing a part time degree programme. This support should tackle issues such as lack of necessary direction, academic self-confidence and surface approach to studying, all which form a complex network that can bring about changes in nursing achievement (Ofori, 2000).

There are a number of limitations within this exploratory study. While the participants were from two third level colleges in the Republic of Ireland generalising the findings is minimised owing to the convenience sampling method chosen. The risk of a social desirable response was increased given possibly the timing of data collection (final week) and the self reported nature of the questionnaire. Furthermore the finding of this study, do not reveal the impact that the key stressors had on student outcome. It is, however, suggested that the study findings provide potentially valuable information for educationalists designing part time academic programmes for registered nurses.

Conclusion

The study attempted to explore potential education induced stress amongst nurses who were completing part time honours Bachelors Degree in Nursing programmes in two third level institutions in the Republic of Ireland. The findings have some implications for nurse education. Nursing students were predominantly exposed to stressors associated with assignment completion/submission and balancing work commitments. Student support including; structured guidelines on assignment construction and tutorials may minimise the stress associated with assignments. Compared to their older counterparts, students aged 20–30 years of age are exposed to a greater degree of academic stress associated with studying at degree level. There is an onus on all practitioners including educationalists to constantly review and examine current practise in order to accomplish and strive for quality goals. There is an urgent need for educationalists during this radical period of change in nurse education to address issues such as student stress, which can have such a profound affect on performance, growth and student development.

References

- An Bord Altranais, 2000. Requirement and Standards for Nurse Registration Education Programmes. An Bord Altranais, Dublin.
- An Bord Altranais, 2005. Requirement and Standards for Nurse Registration Education Programmes. An Bord Altranais, Dublin.
- Brown, G., 1993. Accounting for power: nurse teachers and students' perceptions of power in their relationship. *Nurse Education Today* 13, 111–120.
- Dowswell, T., Hewison, J., Hinds, M., 1998. Motivational forces affecting participation in post-registration degree courses

- and effects on home and work life: a qualitative study. *Journal of Advanced Nursing* 28 (6), 1326–1333.
- Evans, W., Kelly, B., 2004. Pre registration student nurse stress and coping measures. *Nurse Education Today* 24 (5), 473–482.
- Every, J.S., Poff, D.W., Lamport, N., Hament, C., Alvey, G., 1994. Perceived stressors and coping strategies of occupational therapy students. *American Journal of Occupational Therapy* 48 (11), 1022–1028.
- Gammon, J., Morgan-Samuel, H., 2005. A study to ascertain the effect of structured student tutorial support on student stress, self esteem and coping. *Nurse Education in Practice* 5, 161–171.
- Glackin, M., Glackin, M., 1998. Investigation into experiences of older students undertaking a pre-registration diploma in nursing. *Nurse Education Today* 18, 576–582.
- Jones, M., Johnston, D., 1997. Distress, stress and coping in first-year student nurses. *Journal of Advanced Nursing* 26 (3), 475–482.
- Lo, R., 2002. Experience before and throughout the nursing career. A longitudinal study of perceived levels of stress, coping and self-esteem in undergraduate nursing students: an Australian Case Study. *Journal of Advanced Nursing* 39 (2), 119–126.
- Lindop, E., 1999. A comparative study of stress between pre and post project 2000 students. *Journal of Advanced Nursing* 29 (4), 967–973.
- McKay, S., 1978. A review of student stress in nursing education programs. *Nursing Forum* 27 (4), 377–393.
- Murray-Harvey, R., 1993. Identifying characteristics of successful tertiary students using path analysis. *Australian Educational Researcher* 20 (3), 64–81.
- Nichol, H., Timmins, F., 2005. Programme related stressors among part time undergraduate nursing students. *Journal of Advanced Nursing* 50 (1), 93–100.
- Nicklin, N., Kenworthy, N., 2000. *Teaching and Assessing in Nursing Practice. An Experiential Approach*, third ed. Balliere Tindall, London.
- Ofori, R., 2000. Age and 'type' of domain specific entry qualifications as predictors of student nurses' performance in biological, social and behavioural sciences in nursing assessments. *Nurse Education Today* 20, 298–310.
- Ofori, R., Charlton, J.P., 2002. A Path model of factors influencing the academic performance of nursing students. *Issues and Innovations in Nurse Education* 38 (5), 507–515.
- Radcliffe, C., Lester, H., 2003. Perceived stress during undergraduate medical training a qualitative study. *Medical Education* 37, 32–38.
- Richardson, J.T.E., 1995. Mature students in higher education: II. An investigation of approaches to studying and academic performance. *Studies in Higher Education* 20, 5–17.
- Sarifino, E.P., 1998. *Health Psychology: Bio Psychosocial Interactions*, third ed. John Wiley and Sons, New York.
- Shanahan, M., 2000. Being that bit older: mature students' experience of university and healthcare education. *Occupational Therapy International* 7 (3), 153–162.
- Steele, R., Lauder, W., Caperchione, C., Anastasi, J., 2005. An Exploratory study of the concerns of mature students and the coping strategies used to manage these adverse experiences. *Nurse Education Today* 23, 244–246.
- Timmins, F., Kaliszer, M., 2002. Aspects of nurse education programmes that frequently cause stress to nursing students, fact finding sample survey. *Nurse Education Today* 22, 203–211.

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