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# Perceived stress in occupational therapy students

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ABSTRACT: The purpose of this study was to examine perceived stress of entrylevel master's occupational therapy (OT) students enrolled at a Texas university. A total of 29 students including nine men and 20 women participated in the study. Questionnaires and interviews were used for data collection. The participants were interviewed during the end of the first and second year of the entry-level master's programme in OT. Questionnaires, given at the same time, contained demographic data, open-end questions and force choice questions rated on a Likert scale. The results indicated that the majority of students (66.4%) rated their current level of stress as above average or the highest in their lives. The students expressed feelings of being overwhelmed, confused regarding course expectations and wanted more hands-on experience. When responding to how they managed stress, more than half of the students in the study took an active approach by utilizing exercise. Limitations of the study include using a non-standardized questionnaire, a small number of participants, and that the participants did not represent diversity and were for the most part Hispanic. It is recommended that future research address the cultural and generational issues that may affect perceptions of stress and how students cope with stress. Copyright © 2008 John Wiley & Sons, Ltd.

Key words: occupational therapy graduate students, stress management

#### Introduction

A high degree of stress has consistently been part of the academic experience for occupational therapy (OT) students (Butler, 1972; Everly et al., 1994; Dutta et al., 2005). The stress associated with clinical fieldwork has been addressed in the OT literature albeit somewhat dated (Mitchell and Kampfe, 1990; Mitchell and Kampfe, 1993). These studies found that OT students, for the most part,

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used healthy coping skills to manage stress engendered by transitioning from the academic to clinical fieldwork.

What is less clear is the perceived stress experienced by entry-level master's students. Since January 2007, a master's degree is the minimum entry-level requirement for the profession of OT (Bureau of Labor Statistics, US Department of Labor, 2007) within the United States. Very little research has been done regarding the experience of stress and earning an entry-level master's degree in OT. Earning a master's degree may add to the perception of stress by not only requiring skill-based learning needed to practice but advanced theory and higher level of critical thinking that are part of beginning research skills required in education (Conneeley, 2005). The impact of stress on OT students' ability to cope in an entry-level master's environment is of concern both for the students' academic coursework and their life outside the academic environment. The purpose of this study was to examine perceived stress of entry-level graduate OT students enrolled at a mid-sized public university on the south Texas border.

#### Review of the literature

Dutta et al. (2005) conducted an extensive literature review examining key articles that documented stress or stressors, and the causes of stress in medical, dental, nursing and allied health students. Although Dutta et al. (2005) pointed out that the allied health literature is abounding with evidence of stress among students, they also noted that the literature is less extensive for allied health students than medical, dental or nursing students. Their review of the literature indicated that allied health students had difficulty coping with the strenuous learning environment. Dutta et al. (2005) cited common themes among these studies noting that education and training of health professionals is arduous and 'consequently causes significant amount of counterproductive stress in students (p. 65)'. That allied health students experience a strenuous learning environment seems axiomatic. The perceived stress or stressors is ambiguous and may have multiple factors that affect that perception of stress.

Stress in undergraduate OT students has also been examined in-depth, although little has been published in recent years. Tyrrell (1992) and Tyrrell and Smith (1996) documented stress in undergraduate Irish OT students. Tyrrell (1992) studied an undergraduate class of 102 Irish OT students enrolled at a 4-year honours university. The mean age was 19.8 years. Using the General Health Questionnaire (GHQ-28) (Jackson, 2007), a tool designed to screen for psychiatric disorders, and a self-designed questionnaire listing 60 potential sources of stress, Tyrrell (1992) mapped themes of stressors for all four OT classes. She indicated the presence of stress and the different themes of stressors in all 4 years of study, particularly in the students' first and fourth years. First year OT students' concerns centred on academic demands, which may be expected as the students are new to the university environment and to the coursework in

OT. Fourth year students articulated feelings of stress and anxiety. In their fourth year, students rated academic demands and time management as highly stressful. According to Tyrrell (1992), this is not surprising because fourth year OT students are working full time in clinics, completing research projects and studying for final examinations.

Butler (1972) approached an understanding of stress in entry-level OT students by examining role stress. 'Role stress is tension related to or stemming from the role that an individual is learning or occupies' (Butler, 1972, p. 401) such as learning a new professional and a researcher role. The sample consisted of 27 participants: 6 OT students, 6 OT clinical-fieldwork students and 15 employed occupational therapists. The participants answered The Graduate Student Questionnaire developed by the author. The Graduate Student Questionnaire consisted of 242 items that are self-reported by the participants. Butler (1972) reports that this instrument is meant to be general in nature and gives general information about feelings and attitudes of students. She notes that 29 items indicated greater stress in the OT students and 5 items indicated greater stress in the employed OT. Some specific items mentioned from the student point of view are 'uncertainty of departmental expectations, basis for grading, lack of status, and conflicting faculty demands' (p. 403). This seems to echo the theme of learning environment suggested in Dutta's et al. (2005) work.

Conneeley (2005) studied the experience of advanced master's OT students in England. The participants in the study were already practicing occupational therapists who wished to continue their professional development by earning a master's degree. Graduate-level education in OT, in addition to skill-based learning, requires learning research skills (Conneeley, 2005). OT students are expected to master a body of knowledge related to OT and to integrate that body of knowledge with practice. Ambiguity and conflict occur with prolonged and unremitting study required in professional education, which then must be integrated into performance in clinical settings. Conneeley (2005) observed that although master's level OT students were motivated, they seemed 'unprepared for the degree of time, effort, and emotional energy involved' (p. 106). Conneely's participants shared financial concerns, time and study as issues contributing to stress.

Maville et al. (2004) explored perceived stress in 12 nurse practitioner students. Most participants reported above average or the highest level of stress they have ever experienced. In addition to the rigours of the last year of study, the students noted that managing time and juggling responsibilities between multiple roles and tasks were overwhelming.

#### Methods

The aim of the study was to explore entry-level graduate OT students' perceived stress. The researchers examined the experience of the OT students' perceptions using qualitative methods and descriptive statistics (Patton, 2002).

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# **Participants**

IRB (Institutional Review Board) approval was obtained and participation in the study was voluntary. The participants consisted of 29 of the 31 MSOT (Master of Science in Occupational Therapy) students who were recruited in the spring semester of their first and second years of school at a midsize public university on the south Texas border. All of the MSOT students commute to campus. The MSOT programme admits students every fall and students usually progress through the programme together. The classes are held on evenings and Saturdays. Twenty-seven students carried a full-time course load and two students carried a part-time course load. The ages ranged from the mid-20s to early 40s, with the average of 30.4 years old. Nine students were male and 20 students were female. Nearly half, approximately 45%, were single; the rest of the students were engaged, married or divorced. More than half were a primary caretaker for either children or elder family members. All but two students identified their ethnic origin as Hispanic (see Tables 1 and 2).

#### Data collection

A brief description of the study was provided by one of the investigators to OT students, and informed consent to participate was obtained. Twenty-nine of the 31 students volunteered for the study. A demographic questionnaire and survey were administered by the non-OT faculty prior to the interview that contained

TABLE 1: Demographic information		
Ages		n
20's	51.7%	15
30's	41.4%	12
40's	6.9%	2
Gender		
Male	31%	9
Female	69%	20
Ethnic origin		
Hispanic	93.2%	27
White non-Hispanic	3.4%	1
Bi-racial	3.4%	1
Martial status		
Single	44.9%	13
Engaged	3.4%	1
Married	38.0%	11
Divorced	13.7%	4
Primary care giver with children	48.3%	14
Primary care giver with elder family members	6.8%	2
Non-primary care givers	44.9%	13

TABLE 2: Status		
Student status		n
Full time	93.1%	27
Part time	6.9%	2
Employment Status		
Full time (40–50 hours)	27.6%	8
Part time (3–28 hours)	41.4%	12
Not working	31%	9
Place of Employment		
Professional	41.4%	12
Non-professional	24.2%	7
Not answered	34.4%	10
Financial status (Paying for school)		
Loans	45%	13
Loans and saving	24.2%	7
Loans and scholarships	3.4%	1
Loans and work	3.4%	1
Loans, work and parents	3.4%	1
Loans and out of pocket	10.3%	3
Out of pocket	10.3%	3

both quantitative and qualitative data. The questionnaire and survey were based on prior studies of graduate nursing students (Maville et al., 2004) and undergraduate physician assistant students (Kuhn et al., 2005). A student who was not eligible to participate in the study filled out the questionnaire and gave feedback to the researchers regarding any changes. The OT students were interviewed by non-OT faculty to determine their perception of stress. The non-OT faculty interviewer was a psychologist experienced with counselling and interviewing techniques. The interview was guided by scripted open-ended questions and each interview lasted about 20 minutes. The questions inquired about the experience of being an OT student, coursework, stressors and how the students handled stress.

## Data analysis

The interviews, questionnaire and demographic questionnaire yielded qualitative and quantitative data. The quantitative data were analysed using descriptive statistics. The qualitative data were examined question by question using data display (Miles and Huberman, 2002) and various themes emerged. Because the students were still enrolled in the MSOT programme, the research team chose to have the psychologist—team member tabulate and summarize the data to ensure that the OT faculty would be blinded to the data or any data that could be linked back to a particular student. Confidentiality of the students was maintained in this way.

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#### Results

The questionnaire (Table 3) reflected that the majority of students (66.4%) rated their current level of stress as 'above average' or 'the highest in my life'. The rest of the students (34.3%) indicated that stress was in the low to moderate/average range. A majority of the students find the support of peers (82.9%), friends (58.5%) and family (79.4%) to be above average and the highest in their lives. Some students rated support of friends in 'low' or 'none' categories (6.8%) and the support of family in the 'low' to 'none' categories (10.2%). Support of faculty was perceived to be moderate/average (62%). A few students (13.8%) perceived support as low and the remaining students (24.1%) perceiving faculty support above average or the highest in their lives.

The first three interview questions centred on OT, OT courses and stress related to those courses. Reasons for choosing OT as a profession echoed the common themes of wanting career fulfilment, 'wanting to help people' and wanting more one-to-one contact. When telling about their current courses, a majority (52%) indicated feelings of stress. The students identified the amount of reading and writing assignments as a source of stress. One student stated, 'There is a lot of material to digest in a short period of time', while another student expressed that there 'was too much work. I feel overwhelmed'.

Some students felt that there was too much emphasis on research and it did not tie into practical application. Participants offered these comments:

'There should be better relatedness of theoretical concerns to the real world.'

'I wish we had more hands-on experience.'

'Need more hands-on experience. Too much time is wasted in class.'

When clarifying the stress related to current courses, most students addressed time management issues, particularly balancing school, family and work. Nearly half of the students are caring for children or elder family members. Relevant statements related to balancing the various roles were:

TABLE 3: Perception of current levels of stress and support							
	1 None	2 Low	3 Moderate/ Average	4 Above average	5 Highest ever in my life		
Current level of stress Support of peers Support of friends Support of family Support of faculty	3.4% 3.4%	6.9% 3.4% 6.9% 13.8%	27.5% 17.2% 34.5% 10.3% 62%	41.4% 37.8% 48.3% 45% 17.2%	24.2% 45% 10.4% 34.4% 6.9%		

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'It seems like all the assignments in the classes are due at the same time and that's stressful.'

'I'm often torn between the time spent with family and school.'

'I'm trying to juggle everything: parenthood, my business and the time with my husband.'

In addition to themes of the stress of the academic workload – too many assignments, reading, writing and working on research – students expressed concerns regarding a lack of clarity in the courses, in expectations and in the syllabi. This seems to echo Butler's (1972) results regarding uncertainty experienced by students. Related quotations include the following:

'The students need clearer course expectations.'

'Clarify expectations to the students.'

'They need to restructure the syllabi. Vague. Poor structure and expectations.'

'Some professors don't follow the syllabus.'

Three interview questions concerned handling feelings of stress, decreasing stress and programmatic changes that may help decrease stress. The participants had similar answers to handling feelings of stress and decreasing stress. When answering how they handled and decreased stress, a majority stated exercise. Fifteen of the 29 participants stated that exercise helps them cope with stress. Time with family was a recurring theme regarding handling stress and was mentioned by 12 of the participants. Eight participants noted time with friends was important in coping with the perceived stress. Other ways of handling stress were sleep, TV and movies and time for self.

The students were asked what could be done to decrease levels of stress in the programme and their response related to early statements regarding the perceived causes of stress. Key issues for the students were clarity in assignments and the expectations. Even though the faculty evaluate themselves and tie the assignment to accreditation standards and course objectives, the students again indicated that too much was expected of them and some of it was busy work. The students repeated their concerns regarding clearer expectations on assignments and better feedback from faculty. They wished that assignments could be spread out over the semester. Having assignments due at the same time was a continuing theme. Some statements were:

'Professors have high expectations of us and that is good.'

'Too much busy work in the program'

'Students need clearer course expectations.'

'I don't get enough feedback from instructors on my papers.'

'The class syllabus needs to be followed.'

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The students also suggested programmatic changes such as moving from an evening/weekend programme to a day programme. One student suggested making the programme 3 years long instead of the current 2 1/2 years. Other examples are:

'Change the scheduling of courses.'
'Move the course from night to day'
'Classes during the week rather than the weekend'
'No Saturday classes'
'Part-time programming'

In addition, students requested better orientation to the programme. They were unaware of what to expect in their new role as students and what their families should expect.

There were no emerging themes in regard to comparing the students' current perception of stress with that of other students. Most participants (62%) responded that they did not know how this programme compared with other programmes offered in this university. A few respondents (24%) felt that the MSOT programme was more stressful and the remaining students (14%) thought it was about the same.

#### Discussion

The results of the study found that this group of entry-level graduate students are experiencing more than average stress. The perceived stress encompasses factors involving the experience of education as well as the effect of education on personal life. Participants reflected on assignments, overwhelming workload and lack of clarity in expectations. There seemed to be confusion in the perceptions of the students between the role of beginning OT practitioner and beginning researcher. The students seemed at odds with beginning research skills and perceived them to be in conflict with 'hands-on' skills. There seems to be confusion as how to integrate research skills with what the students perceive as the day-to-day practice of OT. In addition to the new role of students, participants expressed concerns regarding the strain of other roles that were affected by their active engagement in education such as being a husband, wife, mother, father or breadwinner. Time management seemed an issue on two levels. The first was balancing the school workload. Students may approach graduate education with an undergraduate mindset. Being a graduate student is a new role for most students who are returning to school after an absence. The second was balance among school, family and work. More than half the students in this study were married and were caring for children or elderly relatives. In addition, nearly half the students were engaged professionally, doing full-time work such as teaching. Prior to graduate-level work, the students' lives centred around family and work. The sense of balance in the students' lives shifted as they began graduate-level studies. Their lives revolved around attending classes, doing readings and completing assignments. There seemed little room for family, work, or leisure.

Even with very little leisure time, it is interesting to note that approximately half of the participants cited exercise as a routine that helped them cope with the stress of school. This was different from either nursing students or Under graduate physician assistant students (Maville et al., 2004; Kuhn et al., 2005). The physician assistant students in one investigation reported that they coped with stress by 'spending time in passive outlets such as spending time with family and friends, watching movies or television, listening to music, or seeking peer support or spiritual involvement (Kuhn et al., 2005, p. 169)'. In another study, nursing students stated that support systems were a source of stress reduction, but some of the participants had related that they had taken antidepressant medication (Maville et al., 2004). The OT students did mention some of the same coping strategies as the physician assistants such as spending time with family and friends, watching television and movies, and sleep. About half of the OT students dealt with stress by actively engaging in exercise. It is interesting to note that the most frequent mechanism for coping with perceived stress by OT students was active occupation.

# **Implications**

Balance in life is a core belief of most practicing occupational therapists and is implied in the OT Practice Framework (American Occupational Therapy Association [AOTA], 2002). The OT Framework (AOTA, 2002) has not only areas of occupation and performance skills but performance patterns and roles. Performance patterns, which address habits, routines and roles, connote balance between habits, routines and roles. The OT researchers questioned how to help the students find and maintain balance in their lives.

Students were asked about productive changes that they would like to see in the current programme. Feedback centred around changes in the scheduling of courses and predominately suggested moving from an evening/Saturday programme to a day programme, clarity in assignment and expectations and better orientation to the programme. The current programme is moving from an evening/Saturday programme to a day programme.

Each year, there is a new student orientation programme. This orientation covers classes, the student handbook and expectations. The new student orientation programme has implemented changes since the completion of this study. The faculty has incorporated a segment entitled 'The Culture of Graduate School'. This section of orientation is shared by three faculty members. They address ethics, the differences in graduate and undergraduate education and expectations. Resources available in the OT department and on campus are clarified in the section. Coping and study skills are covered in more detail than

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ever before. The second year students developed a presentation about their experience in 'surviving' the first year. They give the first year students helpful tips, advice and reiterated resources of which the first-year students may be aware.

Some limitations of the study include the homogenous background of the participants, the inclusion of first and second year graduate students in a single study and the use of the questionnaire and survey. Participants of Hispanic background composed 93% of the population of this study. Nationally, only 2% of practicing occupational therapists list Hispanic as their ethnic background. Even if occupational therapists are not adequately represented by practitioners who identify themselves as Hispanic, this exceeds the norm for the US population (US Census Bureau, 2008). Furthermore, 90.3% of occupational therapists are women (US Census Bureau, 2006). In this study, 31% of the participants were men, which is more than triple the national average. The population was treated as a single group even though there were students completing their first year and students who were completing studies just before going out on fieldwork. The psychologist who analysed the data examined this aspect and did not find any differences between the two cohorts. This may have been due to the small sampling size. The questionnaire and survey were adapted from earlier research studies (Maville et al., 2004; Kuhn et al., 2005). These investigations did not address the reliability or validity of the instruments. For the current inquiry, the researchers piloted the survey and questionnaire for content using an OT student who was not eligible to participate in the research project. Future research in the area of perceived stress may include a closer look at the guestionnaire and survey with particular emphasis on reliability and validity tools.

Additional research may be needed to compare OT students who are Hispanic with those that are non-Hispanic. A strength of this study is that it addresses factors related to success and retention of a student group that is under-represented in the profession of OT. It may also be useful to compare students in their first and second year of study separately. Tyrrell (1992) and Tyrrell and Smith (1996) noted differences in stress depending on the year of study in the 4-year undergraduate programme. Most stress was noted in the first and fourth years.

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