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**Paramedic pre-employment education and the concerns of our future:
What are our expectations?**

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Abstract

Objective: To analyse Monash University pre-employment students' concerns about gaining employment with ambulance services in Australia.

Design: A Likert-based questionnaire and open-ended questions.

Setting: On campus study, Peninsula Campus, Frankston, Australia.

Participants: Eighty-eight (n=88) students studying the Bachelor of Emergency Health (Paramedic) degree at Monash University.

Results: Interestingly, 45% of students intend to only apply to a Victorian ambulance service, with less than 10% of students stating they would accept an interstate position if successful in a Victorian service and interstate. Thematic analysis gained from the open-ended questions also emphasised many concerns students had regarding employment from a pre-employment perspective including: pre-employment education not being recognised, lack of workload, geographical isolation once employed and perception of being too young.

Conclusions: The findings of this study highlight many barriers in gaining employment and emphasise pertinent issues that not only currently confront the students of pre-employment education at Monash University, but also for pre-employment students studying around Australia.

Keywords: degree program; education; paramedic education; undergraduate; survey.

Introduction

In Australia the pre-hospital education system is in the process of being transformed to establish a pre-employment education model involving the higher education sector.¹⁻⁶ Currently, there are six university-based pre-employment paramedic degrees being offered in Australia. As the traditional post-employment programs continue to be phased out across

Australia, it is therefore no surprise that pre-employment courses continue to be extremely popular throughout Australia. This philosophical and educational transition has presented students with career based decisions. This has culminated in general concerns and anxieties regarding future employability.

No evidence has been published that directly addresses paramedic pre-employment students' concerns regarding employment, however, some nursing literature has addressed this issue.⁷⁻⁹ These concerns need to be urgently addressed by administrators, educators and students so as to prepare future students for realistic employment opportunities. In 2006, employment success rates for students undertaking the Bachelor of Emergency Health (BEH) degree are approximately 75%.¹⁰ The discourse generated will also provide precise feedback to the educators and ambulance organisations on ways to fulfil the concern the students have on obtaining full-time employment upon graduation from their paramedic degree. Included in this process of information is to better prepare students of the highly competitive and arduous tasks of interviews and selection process. The overall aims of this research project were to identify the concerns regarding the employability of future students undertaking the Bachelor of Emergency Health (BEH) degree.

Methods

Study Population

This study was undertaken using first, second and third year BEH paramedic undergraduate students. There were eighty-eight (n=88) responses at the time of the study. The BEH degree is pre-employment or pre-registration professionally oriented undergraduate degree, offered full-time on campus by Monash University.

Study Design

The questionnaire was adapted to assess the students' concerns regarding employment using Likert Scale responses to statements and several open-ended questions. The questionnaire assessed the student's concerns using Likert Scale responses to statements. The questionnaire used a 4-point Likert-Scale, '1' being 'strongly disagree' and '4' being 'strongly agree'. The open-ended questions were incorporated to explore further qualitative themes. The return rate for the questionnaire was 67% (n = 88)

The questionnaire aimed to investigate the following:

- Enrolled year
- Gender
- Age
- Prospect of employment opportunities
- Interstate employment
- Teaching tools for the application and selection process
- Expected duration of employment

Sample

A purposive sample of first year (n=20), second year (n=41) and third year (n=27) undergraduate BEH students was undertaken. The study was undertaken at the end of semester two, 2006 academic period (October 2006) prior to all final clinical examinations.

Ethics approval for the study was granted by the Monash University Standing Committee on Ethical Research in Humans.

Results

The study cohort consisted of 61% females with 73% of the students 25 years or less (Tables 1 and 2).

Table 1. Gender Distribution

Table 2. Student Demographics

Employment intentions

Less than half of students (48%) intend to apply only within Victoria (Metropolitan Ambulance Service [MAS] and Rural Ambulance Victoria [RAV]). Less than 10% of students stated they would accept an interstate position if successful in both MAS/RAV and interstate. However, just over 1 in 10 (11%) of students would not accept an interstate position if this was the only State they were successful in gaining employment. Further results are demonstrated in Table 3.

Table 3. Employment expectations

Interstate employment

The majority of students (81%) would not accept a position outside of Victoria. Reasons offered by participants included (in order of concern): family commitments, personal friendship networks, financial obligations, sporting responsibilities and travel demands.

Length of employment

The study cohort also indicated that more than half (54%) intend to be employed for more than 20 years. While the majority of students (92%) propose to be employed for more than 11 years. This is illustrated in Figure 1.

Figure 1. Proposed length of employment as a paramedic

An extra question was only offered to the third year students who had already completed the application process. The question asked if they felt prepared by the University for the application and selection process. Over two thirds of the third year students (67%) felt they were ill prepared. This question was followed with an open ended response on how the university could better this process. General comments included suggestions of mock interviews and role playing. Some comments were in opposition to this, highlighting this process was not a university responsibility, rather an area that should be a self-directed process.

Thematic analysis

Student responses to open-ended questions underwent thematic analysis as described by Bender & Ewbank¹¹ by three independent reviewers with the results compared between data sets. This method of data analysis triangulation has been shown to improve the validity of qualitative data.¹²

The following themes were identified as major concerns and impediments for gaining employment with an ambulance service.

- BEH education not being recognised
- Family/maternity leave
- Lack of workload
- Behavioural interviews
- Geographic isolation
- Clinical Instructors (CI's) not familiar with BEH degree
- Perception of being too young

A sample of typical responses from first, second and third year students is shown below discussing their attitudes and concerns of gaining employment:

- **Gaining employment**

“There seems to be a greater number of students than prospective job numbers” (1st year student)

“Since there are so many applicants, it will be extremely hard for all of us to end up being accepted by the ambulance service” (2nd year student)

- **BEH education not being recognised**

“There still seems to be this “issue” with pre-employment students” (3rd year student)

“Being treated poorly due to coming from university rather than DAPS [Diploma of Paramedic Studies] course” (3rd year student)

- **Family/maternity leave**

“Not much info has been given to us regarding maternity and family leave” (1st Year student)

“This is not going to work for a female with children and the commitments they incur” (2nd year student)

“If I have children I may have difficulty progressing my career to the MICA level as I would need to take time off” (1st year student)

- **Lack of workload**

“Not having the appropriate experience base” (3rd year student)

“Not having enough clinical experience to make a smooth transition from uni student to paramedic student” (2nd year student)

- **Behavioural interviews**

“I believe the selection process is tremendously flawed” (2nd year student)

“The use of behavioural interviews are subjective and extremely limited” (3rd year student)

- **Geographic isolation**

“Some branches can go for days at a time without a call out” (3rd year student)

“Gaining employment and being put out in rural area without gaining adequate case load” (2nd year student)

- **Clinical Instructors (CI's) not familiar with BEH degree**

“All I want from my CI is to understand that we learnt things a bit differently and to be patient, I hope I can expect this” (3rd year student)

“Having to work with CI's that are not capable of taking on the changing role of CI's” (3rd year student)

- **Perception of being too young**

“Why are the services so hesitant about age?” (1st year student)

“Attitude of paramedics, especially toward people my age working in the service” (3rd year student)

- **Discussion:**

“We need to accept that paramedic education is evolving in response to changing community expectations, the exponential growth of technology, and knowledge arising from research in medicine and other allied health fields.”²

The pre-employment paradigm, whilst being considered new is in fact now into its second decade since its inception at Charles Sturt University. However, in many ways the paramedic pre-employment destiny will be shaped and determined within the next few years. Given the comparable similarities with nursing, attempts have been made to align the findings in this study to those from the nursing literature. The results whilst not necessarily surprising in some aspects, have now provided the first of this type of study from an Australian context. This will provide an important landscape to prospective students, university academic staff, ambulance organisations and government administrators.

The perception of being too young, along with the very real possibility of not gaining employment, was considered a major concern for all three year levels of the BEH degree. At the time of the questionnaire 34% were <21 years of age. This concern is generally exacerbated by anecdotal reports and comments from qualified paramedic staff about the student's age, maturity and amount of life experience these students have while completing placement for the course. However, as Lord² points out – “When maturity of the paramedic is discussed it is often confused with experience ...” Life experience is meaningless without the context of how attitudes, abilities and behaviours are developed and integrated. In other words, how do you measure (or argue) an 18 year old who has back-packed around Europe for twelve months and worked with in several non-government organisations doesn't have ‘life experience’? The argument continues to be maintained by many. In our opinion, this is flawed, unsustainable and obsolete, particularly in the twenty-first century.

Another interesting but disappointing finding is the continued negative feedback and generalisations made by on-road paramedics regarding pre-employment education. This qualitative feedback was captured in the students' preconceived concerns regarding gaining employment. Lindop's study¹³ found that a major reason why pre-registration nursing students left the nursing profession was related to pessimistic attitudes from qualified staff. Many variables are involved in these opinions by on-road staff, some warranted, some not. Comments from students seem to be central to particular characteristics with on-road paramedics; invariably these individuals have issues with the ‘new’ type of education either because they were not provided with an opportunity to undertake a pre-employment degree, or because the post-employment diploma has been abolished. The responses clearly indicate that students just want friendly and non-threatening learning environments on clinical placements – unfortunately, this is not ubiquitous in all areas. If the relationship between educator and student is not harmonised by a willingness to educate, then effective and meaningful student learning is not likely to occur.⁸

Regarding gaining employment in States other than Victoria, the results were not that surprising with 85% of students only intending to apply in Victoria. With only half of the students looking at interstate employment this raises several issues. Firstly, what will graduates do if they fail to secure employment in Victoria? And secondly, how are interstate services going to address this interest from Monash students? This question has been supported in the nursing literature with several studies. Collins, Hilde & Shriver¹⁴ found in their study that approximately 20% of their students intended to work in a rural setting following rural clinical placements. This may suggest that some services should consider increasing the capacity to accept students on clinical placements and promote positive experiences to prospective students. In another nursing study undertaken by Collins, Hilde & Shriver¹⁴ almost a third of nursing graduates emphasised their clinical practicum area exposure was a deciding factor in where they sought employment. These findings are supported by Courtney, Edwards, Smith and Finlayson⁷ who also found similar findings.

Providing pre-employment students with an opportunity to 'socialise' in interstate ambulance organisations could be a way of improving perceptions of being employed by an interstate ambulance service.

The BEH degree and its contemporary thematic pre-employment degree has in many aspects expanded well-beyond the Victorian border. As the program has developed and expanded, so too has the need for 'career days' from ambulance services around Australia. This career guidance has been addressed within Monash for approximately three years allowing ambulance services to provide students with a broad overview of what their services have to offer. Interestingly, career guidance in nursing is very limited with only three papers¹⁵⁻¹⁷ addressing employment opportunities in traditional nursing programs. Only one paper exists in the context of pre-registration.⁹

The intention to apply for interstate positions increased with each year level. This could be simply related to the fact that students have a better understanding of paramedic systems and ambulance organisations as they progress through the program. It will be of interest to see if these numbers continue to increase as the post-employment diploma program in Victoria ceases in 2008.

Another important result was the 11% of students who would not accept an interstate job even if they were not successful in Victoria. This raises critical questions such as "what will students do between applications" and "how are these students going to maintain skills proficiency". The qualitative data highlighted that leaving family and friends was the major barrier to accepting an interstate position in each year level. Travel was also concern for 1 in 5 students in relation to accepting an interstate position. In an experimental study by Courtney, Edwards, Smith, & Finlayson⁷ several factors for encouraging future employment opportunities were identified. These included: the presence of strong friendship networks, diversity of case load, supportive teaching and learning environment and pre-registration mentor. Financial constraints were also stressed as a potential barrier to interstate employment, similar findings were found in the study undertaken by Evans & Kelly⁸ who assessed pre-registration student nurse stress and coping measures.

With respect to length of employment, over half the cohort intend to be employed in an ambulance service for more than 20 years. Whilst this shows dedication, desire and commitment to their potential employees, it does need to be placed into context. As a consequence of the social, economic and cultural trends in Australia, the work environment for health professionals has changed dramatically over the last decade. The role of the ambulance paramedic is dynamic and shifting in its core responsibilities and functions and it could be argued that a shorter length of employment could enhance primary health care requirements as the very nature of health care continues to change.

Limitations

The major limitation of this study was that it only represented one student body from one University.

Conclusion

The findings of the study have highlighted and exposed pertinent employment issues that are currently confronting the students of the pre-employment program at Monash University. This information should now provide a basis to inform and educate students undertaking the

BEH and other pre-employment degrees, whilst importantly informing ambulance administrators and human resource departments with the opportunity to gain the most appropriate employees for their organisation. It is anticipated the results from this study will further emphasise the existing and future challenges the paramedic profession will need to urgently address.

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