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What motivates students to pursue a career in paramedicine?

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Research

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Abstract

Introduction

This study aimed to determine the motivations behind students' decision to enrol in a degree in emergency health (paramedic) or double degree emergency health (paramedic) and nursing.

Methods

Students were surveyed to determine the importance of different motivations influencing their decision to enrol in their current university course.

Results

There were 168 surveys returned from 182 students (93% response rate). The most important motivations for students were 'wanting to help people', 'saving lives' and 'exciting career'. Older respondents rated 'giving back to the community', 'wearing a uniform', 'employment prospects', 'pay rate' and 'job security' slightly higher. Males considered 'pay rate', 'working environment' and 'job security' slightly more important than females.

Conclusion

Findings suggest that like other health professional students, those studying paramedicine do so for intrinsic motives including 'wanting to help people', 'saving lives' and 'exciting career'.

Keywords:

career choice; allied health personnel; emergency medical technician; motivation

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Introduction

Numerous factors, including a desire to help people and the thrill of driving with lights and sirens, could entice individuals to explore a career in paramedicine. The precise motivating factors however, remain unclear (1). Motivation is made up of a multitude of intrinsic and extrinsic factors that can determine the career path an individual chooses (2). Intrinsic motivations include personal interest or the enjoyment felt from participating in a task (2). Extrinsic motivations come from outside the person and consist of external rewards, this could be monetary, or praise from others (2,3). It has been shown that, in general, people are attracted to a career that offers employee security, high levels of responsibility, work that is challenging and has monetary appeal (4).

It is widely accepted that paramedics work in a dynamic workplace that is different from one day to the next (1,5). This unique workplace can hold excitement due to the range of clinical presentations and incidents experienced, the high-risk nature of the work, and the level of autonomy (5). In addition, the media enhances the perceptions of paramedics being involved in dramatic rescues by exposing the public to the more 'entertaining' side of the career; lights, sirens, and dramatic resuscitations; neglecting the less thrilling and more mundane aspects of paramedic practice (5). Attraction to an exciting lifestyle is widely regarded as the chief motivating factor for choosing to pursue a career in paramedic practice (6), although there has been minimal literature empirically validating this.

In the United Kingdom, first year paramedic students cite their motivating factors for studying paramedicine as the diversity, being able to save lives, the excitement, listening to a paramedic friend's stories and the ongoing learning of new skills (6). In a United States (US) study to assist with the recruitment and retention of emergency medical technicians (EMTs), elements of being an EMT that attracted students included a desire to help the community and to serve others (7). Whereas a study examining the career intentions (after course completion) of 508 paramedic students from the eastern Australian states found that personal factors had the biggest influence (1). The first year paramedic students interviewed identified the four primary themes in their decision as: a location near friends and family, adventure and action, previous experience with emergency services and the paramedic image portrayed in the media (1). Although this study identified that some students chose to study paramedicine due to the attractiveness of 'high stress, dangerous work' and work that varied on a daily basis, it was not definitive in determining the underlying motivation behind choosing a course in paramedicine over other university courses (1). Another Australian study found that double degree students that chose

a career as a paramedic over nursing after course completion, were enticed by intrinsic factors such as exciting and challenging work, and extrinsically by more attractive working conditions (8). Students' clinical experiences also had a major impact on their decision (8).

As a consequence of the general lack of literature specifically related to the paramedicine field, and because some of the students in this study were concurrently studying nursing, knowledge from near professions in health care have also been used to inform and compare results. One Australian study specific to nursing found the top reason for students choosing this career was the desire to be caring, with several students also identifying personal events that contributed to their choice (9). Some students also acknowledged that they were pursuing nursing because they felt a great sense of validation and achievement in helping others (9). A study of Australian medical students (following an emergency department placement), compared their perceptions of a career in emergency medicine with registrars and consultants already working in the field (10). The registrars and consultants outlined the motivating factor that influenced their career choice being a rewarding career, whereas students thought work-life balance, intellectual stimulation, flexibility of work schedule and camaraderie were important to career choice (10). In a study of first year speech pathology and medical radiation sciences students the authors concluded that regardless of the health science field, an interest in working with and helping people was an important motivating factor in career choice (11). A US study identified diversity of clinical pathology, emphasis on acute care practice and flexibility in choosing practice location, as the greatest determinants for career choice within the medical profession (12).

While there is abundant literature identifying the motivations of students pursuing careers in emergency medicine and nursing, there is little information identifying the major motivations of students who pursue a career in paramedicine. Identifying these motivating factors could be used to bridge the gap between prior expectations and the vocational reality, as well as assisting universities in the recruitment of students best suited to a career in emergency health. Universities would be able to use the motivations of students for marketing purposes to attract and retain suitable students whose expectations are more aligned to paramedic practice. Advertising could focus on educating individuals about the reality of both course content and employment in an attempt to reduce the discrepancy between student expectations and the reality (13). This could greatly benefit universities by reducing student attrition rates, and also foster career longevity (11,14). The objective of this study was to examine what motivates individuals to pursue a career in paramedicine.

Methods

Design

A cross-sectional study utilising a paper-based survey.

Participants

Students enrolled in the Bachelor of Emergency Health (Paramedic) and the double degree Bachelor of Nursing/ Bachelor of Emergency Health (Paramedic), at Monash University, in Victoria, Australia, were eligible to participate in this study. The 182 eligible students were all enrolled in first year paramedic units of study.

Instrumentation

A Motivating Factors in Paramedic Career Choice (MPCC) survey was devised by the researchers after canvassing current paramedics about their motivations for pursuing their career. The MPCC survey consisted of standard demographic items, 19 Likert scale items rating the importance of motivating factors from 1 = not important to 5 = very important, and one free text item asking participants to list any additional motivating factors.

Procedures

Students were invited to complete the survey at the conclusion of a lecture. The research purpose and procedures were explained and it was made clear that participation was voluntary and anonymous. Completed surveys were collected by an independent member of staff.

Data analysis

The SPSS program (Statistical Package for the Social Sciences Version 21.0, IBM Corporation, Armonk, New York, U.S.A.) was used for data storage, tabulation and the generation of descriptive and inferential statistics. Descriptive statistics and percentages were used to summarise the demographic data. A non-parametric t-test (Mann Whitney U Test) was performed to compare groups. Median (Md) and interquartile ranges (IQR) were reported. All tests were two-tailed, with the results considered statistically significance if the p-value was <0.05 .

Ethics

Ethics approval for the study was granted by the Monash University Human Research Ethics Committee.

Results

Of the 182 students eligible, 168 students participated in the study, a 93% response rate. Of the participants, 66% were female ($n=110$) and 68% ($n=114$) were in the single paramedic degree. All but 1% of students ($n=2$) indicated they began their

degree with the intention of pursuing a career in paramedicine.

Three factors: 'wanting to help people', 'exciting carer' and 'saving lives', emerged as the most important motivating factors for participants' to pursue a paramedic career; each achieving a median score of 5. 'Interest in medicine', 'giving back to the community', 'an admired and trusted profession' and 'working environment' also rated as important, with a median score of 4. Not considered important were 'wearing a uniform, obtainable ATAR (Australian Tertiary Admission Rank) and campus location, all with a median score of 2. The full item level results are available in Table 1.

The double degree students rated 'giving back to the community', 'an admired and trusted profession', 'pay rate' and 'obtainable ATAR score' as slightly more important than their single degree counterparts. The single degree students rated 'driving an ambulance lights and sirens' and 'wearing a uniform' as slightly more important than the double degree students. None of these results were statistically significant.

Male participants rated 'driving an ambulance lights and sirens', 'wearing a uniform' and 'pay rate' as slightly more important, while females found 'obtainable ATAR score' slightly more important. These results were also not statistically significant.

Participants aged 21 years and over rated 'giving back to the community', 'wearing a uniform', employment prospects', 'pay rate' and 'job security' as more important. The 'job security' item achieved statistical significance ($p=0.02$). The under 21 years group rated an obtainable ATAR as more important, which was also statistically significant ($p<0.001$). The comparison results are available in Table 2.

In the free-text response students were asked to add any other motivating factors. Of those that completed this section ($n=39$), most responses offered an explanation or reiterated their responses from the survey. The exception was those that had some experience with other emergency or related services: overseas ambulance service ($n=1$), state emergency service ($n=2$), lifesaving club ($n=1$), community first responder ($n=2$) and work experience with Ambulance Victoria ($n=1$). Three students identified as already being nurses and cited enjoying responding to Medical Emergency Team calls, the opportunity for interprofessional work, more responsibility, and decision-making, as their motivations. Other individual explanations included the opportunity to gain knowledge, learn skills, to be physically active and work with people.

Table 1. Factors motivating students to choose a paramedic career

Motivator	Median (IQR)
Wanting to help people	5 (4-5)
Exciting career	5 (4-5)
Attending emergencies	4 (4-5)
Interest in medicine	4 (4-5)
Saving lives	5 (4-5)
Giving back to the community	4 (4-5)
An admired and trusted profession	4 (3-5)
Personal experience with paramedics attending family or friend	3 (2-4)
Influence or advice from friend or family member working in a health profession	3 (2-4)
Driving an ambulance with lights and sirens	3 (2-3)
Wearing a uniform	2 (2-3)
Employment prospects	3 (3-4)
Pay rate	3 (2-3)
Job security	3 (3-4)
Shift work	3 (2-3)
Working environment	4 (3-4)
Campus location	2 (1-3)
Obtainable ATAR score	2 (1-3)
Not sure what else to do	1 (1-1)

* Scale: 1 = Not important – Very important = 5

Discussion

The three resultant 'very important' motivating factors for students to choose a career in paramedicine were 'wanting to help people', 'saving lives' and 'exciting career'. These motivating factors correlate with a US study which reported intrinsic motivations that increased paramedics' job satisfaction including achievement, interesting work, autonomy and helping others (15). Extrinsic motivations that lead to job retention for EMTs and paramedics included pay and benefits, opportunities for advancement and supervision (15). We found that pay was not ranked as overly important in our study, although at the time when the survey was undertaken students may have been aware of industrial action by local paramedics in Victoria in an attempt to gain an increase in pay rate from the Victorian state government.

In different health care professions the dominant motivating factor for career choice was a desire to help or care for others (9,16). Also, for applicants applying to an Australian university medical school, this same motivating factor was in their top three factors (17). Miers et al also found that altruism was the reason that entry level students chose to study a range of health professions (18). In our study, 'wanting to help people' was one of the top three most important motivating factors.

A US study of EMT staff found their motivations to be an EMT included a change in career path which allowed them to help others and give back to the community, 'inspiration from others', 'leading to respect from the community' and 'an outlet for thrill-seeking behaviours', as well as 'difficult tasks that are challenging' (7). Similarly a preliminary report by Brown et al of a longitudinal study of EMT staff found that more than 97% of EMTs were very satisfied and felt what was most important to them was being able to help others and their working relationships with other EMTs (19). Having a job that was challenging was also important for 97.1% of EMT-paramedics (19).

In our study, older respondents rated 'giving back to the community', 'wearing a uniform', 'employment prospects', 'pay rate' and 'job security' slightly higher; the age of the respondent changed the relative importance of motivating factors. In Celenza et al the mean age of consultants was 41.0; the mean age for registrars was 31.1. The opportunity for diverse employment prospects within emergency medicine was rated more highly by registrars and consultants than by students (10). For students (mean age 25.1), the motivation for pursuing a career in emergency medicine included lifestyle and employment factors, such as a work-life balance, flexibility, opportunities for part-time work and the diversity of clinical problems (10).

Discussion (cont)

Students that did not want to pursue a career in emergency medicine believed that it was unrewarding because of a lack of continuity of care (10). O'Meara found that students in their first year of study were motivated by their previous experiences with emergency services plus the image of a paramedic's role, adventure and action, and location near family and friends (1). Similarly rural high school students studying an allied health curriculum were more likely to pursue an emergency medical

services career if they had exposure to EMS outside of school (20). They were also influenced by the media and thought it would be mentally challenging (20).

Overall, almost double the number of respondents in our study were female (n=110) compared to male (n=58). This is consistent with other findings where women outnumber men in health professions. In nursing for example, only 5-6% of qualified nurses in the US are male (14).

Table 2. Degree, gender and age comparisons

Motivator	Single degree n=114 (Md)	Double degree n=54 (Md)	p-value	Male n=58 (Md)	Female n=110 (Md)	p-value	Age <21 years n=122 (Md)	Age ≥21 years n=46 (Md)	p-value
Wanting to help people	5	5	0.84	5	5	0.06	5	5	0.42
Exciting career	5	5	0.50	5	5	0.78	5	5	0.12
Attending emergencies	5	5	0.34	5	5	0.07	4	4	0.56
Interest in medicine	4	4	0.55	4	4	0.26	4	4	0.62
Saving lives	5	5	0.93	4	4	0.55	5	5	0.21
Giving back to the community	4	5	0.17	4	4	0.58	4	5	0.69
An admired and trusted profession	4	5	0.06	4	4	0.53	4	4	0.85
Personal experience with paramedics	4	4	0.99	4	4	0.62	3	3	0.40
Influence or advice from friend	3	3	0.57	3	3	0.60	3	3	0.20
Driving an ambulance	3	3	0.12	3	3	0.36	3	3	0.91
Wearing a uniform	3	3	0.41	3	3	0.24	2	3	0.20
Employment prospects	3	3	0.99	3	3	0.20	3	4	0.07
Pay rate	3	2	0.96	3	2	0.14	2	3	0.09
Job security	2	3	0.28	3	2	0.06	3	4	0.02
Shift work	3	3	0.48	3	3	0.47	3	3	0.68
Working environment	3	2	0.72	3	2	0.85	4	4	0.56
Campus location	2	3	0.93	1	2	0.61	2	2	0.71
Obtainable ATAR score	2	2	0.09	2	2	0.17	2	1	<0.001
Not sure what else to do	1	1	0.98	1	1	0.15	1	1	0.39

*Scale: 1 = Not important – Very important = 5
 p<0.05 considered statistically significant

Discussion (cont)

There were no differences between the most important motivations of both males and females in our study, although other less important motivations ranked slightly differently. Males considered 'pay rate', 'working environment' and 'job security' slightly more important than females. This is consistent with Zysberg and Berry's (2005) study where males put greater emphasis on salary and job security, but also included the social image of the nursing profession as important (14). Also, males identified the opportunity for leadership as important whereas females identified social influences (14). In a study of interviews of US nursing students comparing gender with reasons for studying nursing, both females and males were motivated by the desire to care for others, although males placed more importance on practical motivations such as salary and working conditions (21).

The students in our study were completing a Bachelor degree at university that would enable them to apply to national and international organisations that recruit paramedics or to a hospital if they were studying the double degree. This differs to other countries where studying paramedicine may be employment based. A US study that only studied extrinsic motivations, found that motivations to study to be an EMT included financial incentives such as health benefits, uniform, tuition reimbursement and salary (22). Many students expected to complete further training to enhance their career opportunities with 37% of students already having previous health care experience, 36% had a family history of EMS employment and 8% had military experience (22). Also, different types of employment are available to EMT students, including in hospital emergency departments, for private transport providers, as well as fire departments (22).

It is interesting to note that the least motivating factor to study paramedicine was 'not sure what else to do' indicating that paramedicine as a career choice was not seen as an easy or generic option. This may be indicative of the limited range of career options available upon graduation. In a Swedish study of

nursing students, the least frequent but most stressful motive for pursuing nursing was 'default choice' (23).

This study is specific to a career in paramedicine where students study a Bachelor degree before gaining employment. The results show similarity with the motivations of students to study other health professions as a career choice.

Limitations and future research

The survey design gave pre-determined choices to be ranked, which might have resulted in bias. This study was only conducted in one university, at one year level. Future studies might compare the differences between first year and final year responses, or between different universities and different countries. Further research might also investigate the reasons why people drop out of their course, leave a paramedic career, or if their motivations change after clinical placement.

Conclusion

The three 'very important' motivating factors for students to choose to study a career in paramedicine are 'wanting to help people', 'saving lives' and 'exciting career'. The least motivating factor to study paramedicine was 'not sure what else to do'. Paramedics, along with other health professionals, are motivated to study their chosen career for very similar intrinsic reasons.

Conflict of interest

The authors declare they have no competing interests. Each author of this paper has completed the ICMJE conflict of interest statement.

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