Research

Risk of psychological distress, pervasiveness of stigma and utilisation of support services: Exploring paramedic perceptions

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Abstract

Introduction
Paramedics are exposed to significant and cumulative stressors that contribute to poor mental health. The provision of effective and engaging mental health support is essential in improving overall wellbeing. Many ambulance services have adapted their available support services to reflect this need. However, there remains limited research into the perceived efficacy of these services and barriers that limit uptake from paramedics.

Methods
Paramedics and ambulance volunteers from Australia and New Zealand were invited to complete an online survey consisting of a series of Likert-scale and open-ended response questions. The well-validated Kessler Psychological Distress Scale was also incorporated into the online survey.

Results
A total of 184 participants completed the survey. A total of 50 (27%) participants reported high/very high levels of psychological distress. Participants exposed to at least one adverse event while working reported higher psychological distress scores than those that had not. Just over half (51%) of all participants disagreed/strongly disagreed there was no stigma associated with seeking mental health support from paramedic colleagues and 54% of participants disagreed/strongly disagreed there was no stigma from managerial staff.

Conclusion
These findings suggest paramedics are at a greater risk of psychological distress than the general population. This is particularly problematic given there is a clear perception of ongoing stigma among paramedics associated with the utilisation of mental health support services. Future research should explore methods for reducing stigma and encouraging help-seeking behaviours in this vulnerable population throughout all phases of an emergency service workers career.

Keywords:
paramedic; first responder; mental health; stigma; support

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Introduction

The mental health and wellbeing of paramedics is a significant challenge internationally (1). Paramedics have a higher prevalence of mental health disorders associated with trauma and stress, a challenge that is compounded by a complex and dynamic working environment where exposure to life and death emergencies, violence and major trauma on an almost daily basis contributes to cumulative stress that directly impacts on health and wellbeing (2). Several studies suggest that paramedics are also at a higher risk of being overweight and physically unhealthy compared to the general population (3,4) and more likely to smoke and have higher blood pressure and cholesterol than the general population (5,6). The nature of shift-work, exhaustion, continually increasing workloads and the dynamic aspects of the pre-hospital operational environment can further impact on paramedic physical health and wellbeing (7).

Evidence suggests that prolonged stresses associated with the paramedic job, along with job instability, inadequate resilience and the lack of effective coping mechanisms all contribute to mental health claims among paramedics (8-11). A lack of emotional competence, help negation and negative attitudes towards mental health have also been identified as key barriers preventing help-seeking behaviours among this cohort (12). Emergency responders often seek to ‘detach’ themselves from traumatic or emotion-inducing situations in an attempt to preserve their mental wellbeing. These informal methods of wellbeing support, such as peer support and the use of humour, can be effective in improving resilience (9). Despite some evidence advocating for these avenues of informal support, more formal methods of support, such as debriefing and referrals to external agencies, have been more clearly shown to have positive impacts on paramedic mental health (8).

A substantial body of evidence has accumulated over the past 5 years exploring the mental health and wellbeing of emergency services personnel (13-15). A review into the Commonwealth, State and Territory governments’ role in addressing the high rates of mental health conditions experienced by first responders and emergency service workers by the Australian Senate (16) suggested that a clear stigma existed among first responders suffering from mental health conditions. Needing help for a mental health condition was perceived as shameful and burdensome to those around them to the extent that the majority (61%) of first responders avoided telling others they suffered from a mental health condition. The inquiry also outlined improvements were required around workplace culture and performance management for staff suffering from mental health conditions.

An integral piece of this growing evidence-base is the 2018 Australian national survey of the mental health and wellbeing of emergency services personnel (17). ‘Answering the call’ reflected the voices and lived experiences of 21,014 serving and former employees and volunteers from 33 police, fire, ambulance and state emergency services agencies. Participants were asked about their experience of mental health conditions, stigma, use of support services and programs, and attitudinal and behavioural factors. The report provided a detailed national picture of the mental health and wellbeing issues affecting those who serve and protect. It identified that participants had higher rates of psychological distress, higher rates of diagnosis of mental health conditions, and higher rates of suicidal thinking and planning than the general adult population in Australia. One of the key findings was that supportive work cultures is a key contributor towards more positive mental health outcomes, but that stigma can work to negate these effects.

In response, a number of relevant bodies have commenced initiatives that work to better document potentially damaging incidents, at risk and affected workers, and facilitate better access to support services. Such bodies include (but are in no way limited to) Beyond Blue (18), Victorian Government Ambulance Victoria (19), Sirens of Silence (20), and Queensland Government Priority One (21). While this is promising, and certainly a step in the right direction for the paramedic workforce – particularly given the clearly increased risk of diminished health and wellbeing in contrast to the general population – there remains a dearth of research into the area. A recent evidence map of 43 published articles investigating research into mental health and wellbeing of emergency service personnel suggested one of the more serious avenues that warrants further investigation is the availability, barriers and facilitators to uptake of care and mental health support services (22).

The objective of this research was to explore paramedic perceptions of stigma and how it impacts on the utilisation of available mental health support services. This aim was operationalised in the following research questions:

- Do paramedics perceive they have access to effective mental health support services?
- Is there an ongoing perception of stigma surrounding accessing mental health support services among paramedics?
- What does mental health status have on perceptions of stigma surrounding accessing mental health support services among paramedics?

Methodology

Study design
This research employed a mixed-methods, embedded study design, with weighting of greater prominence towards quantitatively data (23) through the use of an online survey with both close- and open-ended questions.

Participants
Participants were required to be more than 18 years of age and...
currently either employed as a paramedic or volunteering with an ambulance service in Australia or New Zealand. All participants were recruited via a combination of convenience and subsequent snowball sampling. Participation was voluntary and data was collected anonymously.

Ethics

Ethics approval was received from the Human Research Ethics Committee at Edith Cowan University (#18085) before commencement of data collection.

Materials

The online survey was separated into three sections: demographic and professional history information; personal mental health via the Kessler 10 Psychological Distress Scale (KPDS) (24,25), this is a well-validated scale which has been used to gauge the level of psychological distress of emergency service workers successfully in previous studies (26,27); and perceptions of access and stigma surrounding mental health support services within participants own organisation. Perception questions were asked via a series of 5-point Likert scales with some questions providing an open-ended response box allowing opportunity for elaboration. Participants accessed the online survey through a link provided in either an email or social media communication.

Statistical analysis

The questionnaire results were exported from Qualtrics into the software program SPSS v25.0 for analysis. KPDS scores were coded into four categories as per the recommendations of Kessler et al (28): 1) likely to be well, 2) likely to have a mild disorder, 3) likely to have a moderate disorder, and 4) likely to have a severe disorder. Those coded as a 3 or 4 were further coded into experiencing high (or very high) levels of psychological distress (29). Between-group comparisons were made between continuous and categorical variables through a series of independent samples t-tests and one-way ANOVA analyses, and between categorical variables via a series of chi-squares. Open-ended responses to questions were coded into categorical themes.

Results

Demographics and professional history
A total of 184 participants completed the online survey throughout September 2017 and March 2018. The participant pool consisted of 86% paramedics and 14% ambulance volunteers. The sample consisted of 55% males, had a mean age of 38.6 years (SD=10.6 years) and an average of 11.7 years (SD=8.8 years) on-road working experience; 64% were from Australia and 36% from New Zealand. Every state or territory within Australia was represented with the exception of the Australian Capital Territory.

Kessler Psychological Distress Scale

A total of 27% of participants reported either high or very high levels of psychological distress (13% of total sample scoring in the severe disorder category). The mean total score was 19.8 (out of a possible 50) (SD=7.6). No differences in overall psychological distress were found between males and females (p=0.726), or between paramedics and ambulance volunteers (p=0.713). Age and years spent working in the sector had no impact on the likelihood of having a high or very high level of psychological distress versus low to moderate levels of psychological distress (p=0.406 & 0.932 respectively).

However, New Zealand participants scored significantly higher levels of psychological distress than Australian participants (18.6 vs. 22.3 respectively, p=0.025). A total of 22% of Australian participants scored high or very high levels of psychological distress, vs. 34% from New Zealand (p=0.049).

A total of 73% of respondents (n=139) answered ‘yes’ to the question: ‘Has there been any singular incidences while working as a pre-hospital healthcare professional, that you feel has negatively affected your mental health?’ Those answering yes to the above question had statistically significantly higher scores on the KPDS than those that answered no (p=0.023). Those that did answer ‘yes’ to this question were also asked to estimate how many singular instances they felt they had been involved in, while working as a pre-hospital healthcare professional, that they felt negatively impacted on their mental health. A total of 44% (n=49) suggested there had been at least 10 singular instances they felt impacted negatively on their mental health. Those with 10 or more instances had worked in the profession longer on average than those with less than 10 instances (15.15 years vs. 9.5 years respectively, p<0.001). Gender (p=0.116) and country (ie. Australia vs. New Zealand) (p=0.477) had no impact on the likelihood of exposure to 10 or more instances that impacted negatively on mental health. However, those employed as paramedics were more likely to suggest they had experienced 10 or more instances that negatively impacted on their mental health compared to ambulance volunteers (p<0.001).

Perceptions of access to support services

A total of 94% of participants suggested they were aware of at least one form of mental health service provided via their organisation. Participants were asked to rate via a 5-point Likert scale their knowledge of what the mental health services provided via their organisation offered (1 being not at all good, and 5 being very good). A total of 62% of respondents suggested they did not have good or very good knowledge of the services offered by the mental health services provided by their organisation. Score on the KPDS was not predictive of whether or not respondents had good knowledge of mental health support services offered by their organisation (p=0.102), nor was whether or not the respondent felt they had exposure to 10 or more instances that negatively impacted on their mental health (p=0.856). However, those that did suggest they
had a good or very good understanding of the mental health support services offered by their organisation had spent more time in the profession than those that did not suggest they had a good understanding (13.6 years vs. 10.4 years respectively, p=0.020).

Accessing support services
A total of 63% of respondents (n=116) suggested they had (at least once) engaged with a mental health support service. Of these, 64% (n=74) accessed these services through their organisation, with the remaining 36% (n=42) accessing services entirely external to their organisation. KPDS scores were no different between those that had and had not accessed mental health services through their organisation (p=0.063). However, KPDS scores were higher among those that chose to engage with mental health services external to their organisation, compared to those that had never engaged with mental health support services (p<0.001). Those that had accessed support services external to the organisation had higher KPDS scores than those who accessed services via their organisation (p=0.044). Females were more likely to engage with mental health support services than males (p=0.032), and respondents from New Zealand were more likely to engage than those from Australia (p=0.002). Years in the profession did not influence the likelihood to engage with support services (p=0.440). A total of 27% of participants suggested that their organisation’s mental health support services were advertised ‘not at all well’.

Satisfaction with support services
Of those that had engaged with their organisation’s mental health support services at least once, they were asked to rate their satisfaction with the level of support they received on a 5-point Likert scale (1 being low, 5 being high). A total of 29% of respondents suggested they were either dissatisfied or extremely dissatisfied with the support they received. All participants were then asked to what extent they agree with the statement: ‘The current mental health services available through my organisation where I am employed are adequate for the needs of my profession’. A total of 49% of participants disagreed or strongly disagreed with this statement, while only 26% agreed or strongly agreed. Whether or not participants had engaged with mental health services in the past did not predict whether they felt the mental health services offered by their organisation were adequate (p=0.548).

Participants were given the option of elaborating on how effective they felt their organisation offered mental health services were via an open-ended text box. The most common suggestion was that the resources they were provided with did not align with the paramedic profession (eg. ‘The counselling available was from a generic psychologist with no prior experience working with ambulance personnel making their treatment unspecific and generally unhelpful!’), with the next most common suggesting there was not enough sessions provided (eg. ‘They cover two sessions. That’s it. There is simply not enough professional level support for staff’).

Perception of stigma associated with engaging with mental health support services
Participants were asked the extent to which they agreed with the following statements:

- There is no stigma from paramedic colleagues about paramedics seeking out mental health services, and
- There is no stigma from managerial staff in my organisation about paramedics seeking out mental health services.

A total of 51% of participants disagreed or strongly disagreed that there was no stigma from paramedic colleagues, and 54% of participants disagreed or strongly disagreed there was no stigma from managerial staff. Only 24% and 20% agreed with the above two statements respectively. Whether or not participants had before engaged with mental health support services did not impact on the likelihood of agreeing or disagreeing with the above two statements (p=0.329, p=0.568 respectively). A total of 43% of participants agreed with the statement: ‘If you have poor mental health, paramedicine is not an appropriate profession for you’. Participants were offered the opportunity to elaborate on their thoughts of stigma associated with engaging with mental health services in their profession. Reinforcing the quantitative data, open-ended responses surrounded the feeling of being judged by paramedic peers (eg. ‘It looks like a sign of weakness to many paramedics’), and negative perceptions by managerial staff (eg. ‘I felt very isolated by management’; ‘Management view it negatively. It can impact on promotion’. And ‘Our mental health concerns are not being heard by our leaders’).

Discussion
Emergency service workers, including paramedics, are identified as a ‘high risk’ workforce group (30). Given this, it is not surprising that multiple studies have suggested an increased risk of negative psychological outcomes among paramedics compared to the general population (13). Such outcomes were similarly found in this study, with more than a quarter of participants (27%) scoring either high or very high on the KPDS scale, compared to data provided by the Australian Bureau of Statistics suggesting only 12% of Australians over the age of 18 years were above this same threshold of psychological distress (29). This research also suggests that higher exposure to adverse events is likely to have a negative impact on personal mental health and wellbeing (ie. 73% of participants suggested at minimum one exposure to an adverse event). Other research suggests 97% of paramedics will experience at least one single traumatic event in the field over the course of their career (31). Not surprisingly, increased exposure to such events amplified likelihood among participants of poor mental health as measured by the KPDS. These data further demonstrate how adverse event exposure (eg. workplace violence and abuse, repeated exposures to...
suffering and trauma), commonplace throughout the working life of a paramedic, can impact on mental health and wellbeing. Other research suggests exposure to adverse effects is not the only likely contributing factor, as unpredictability associated with the dynamic working conditions typical of the pre-hospital environment, shift work, organisational stressors, low social support and fatigue have similarly been linked to negative mental health outcomes (13,32,33).

Given the evidence to date investigating mental health among paramedics – as well as other emergency service workers – conspicuously suggests the impacts on mental health among the paramedic workforce are far above those experienced by the general population (13), it is encouraging to see ambulance services transitioning into improved pathways for mental health support. However, more than a quarter of participants in this study who had engaged with such services suggested they were dissatisfied with the level of care received, primarily due to a lack of paramedic-specific content knowledge and understanding from support resources and engagement not being long enough to facilitate improvement. Ambulance organisations should continue to reflect on and improve ongoing access, engagement with, and contextualisation of mental health support services.

Further, participants suggested a pre-existing stigma remained surrounding negative connotations associated with engaging with mental health support services, either facilitated within or outside of the organisation from which they are employed. More than 50% of participants highlighted a pervasive stigma among both work colleagues and organisational managerial staff pertaining to the use of mental health support services. These results support those from the Australian Senate inquiry, which reported that almost two-thirds of paramedics avoided engaging with colleagues for peer-support due to perceived stigma (16). Such results imply a need for cultural change is required to shift this perception and change mind-sets. Only then will paramedics increase their productive engagement with mental health services and enjoy longer and healthier careers in the emergency services and experience reduced rates of burnout and mental health disorders. Many ambulance services are currently working to implement this culture change and shift this perception and break down stigma by embedding mental health and wellbeing strategies that work to normalise mental health support service engagement (18,19,34). These programs should be monitored over time and the changing perceptions of paramedics regarding stigma and help-seeking behaviours should be explored in parallel.

Limitations

This study is not without limitations. Convenience and snowball sampling was utilised for participant recruitment and it is possible voluntary self-selection may have led to some recruitment bias. Readers should take this into consideration given it is possible those that feel more strongly about organisation support services, have had increased exposure to adverse events, or suffer from pre-existing psychological distress, may have felt more compelled to voice their opinion. However, we are also conscious that figures generated from present study participants with respect to psychological distress and mental health support service utilisation stigma are not dissimilar to previous investigations, and that reported exposure to adverse events was actually lower among our sample (30). The ability of these data to be truly generalisable to the greater paramedic workforce aside, it is clear that these issues are prevalent among a not-insubstantial proportion of the paramedic workforce across Australia and New Zealand.

Further, this research assumes that people can provide meaningful answers and respond appropriately to questions of a sensitive nature. This type of research typically investigates largely subjective, affective feelings and values, rather than objective ‘actual’ behaviours. Therefore, while these findings are reflective of the paramedics and volunteers who participated in this research project, they may not necessarily be generalisable to other paramedics and volunteers. Self-reported data such as the information provided by the participants in this research can contain several potential sources of bias. These biases include selective memory (remembering or not remembering experiences or events), telescoping (recalling events that occurred at one time as if they occurred at another time), attribution (the act of attributing positive events and outcomes to oneself but attributing negative events and outcomes to external forces), and exaggeration (the act of representing outcomes or embellishing events as more significant than is actually suggested from other data). The information provided by participants in this research was not verified from any other sources, which could potentially result in some bias in the reported findings.

Implications

This research has made an important new contribution of knowledge to a little-researched field. Therefore, in spite of any limitations associated with the research study design, the novelty of these results should not be overlooked. Despite the contribution of this research to the existing evidence-base on paramedic utilisation of mental health support services and perceptions regarding stigma, there remains an urgent need to continue monitoring a larger cohort of paramedics to ensure they are routinely seeking potentially life-saving mental health support.

Conclusion

Mental health and wellbeing is a global crisis for paramedics. Seeking mental health support can mean the difference between life and death for an occupation where members are suiciding at a rate of up to four times that of the general public. Perceived stigma can potentially deter paramedics and ambulance service volunteers from utilising available mental
health support services. Despite this challenge, the current evidence documenting paramedic perception of stigma and its impact of utilisation of mental health support services is limited. This research used a mixed-methods, embedded methodology to explore the perceptions of a cohort of Australian and New Zealand paramedics and ambulance service volunteers around stigma and the use of mental health support services. Out of 184 participants, 27% reported either high or very high levels of psychological distress. Just over half of all participants disagreed or strongly disagreed that there was no stigma associated with seeking mental health support from colleagues and managerial staff. Future research should explore methods for reducing stigma and encouraging help-seeking behaviours in this vulnerable population throughout all phases of the emergency services career and into retirement.

Competing interests

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

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