The needs of emergency medical workers: Towards a research focus

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ABSTRACT

Literature on Emergency Medical Services (EMS) has paid much attention to stressors, stress and symptoms, coping, and support of Emergency Medical Workers (EMWs). However, it has paid little attention to the needs of EMWs, and the satisfaction thereof, which should result in their improved well-being and motivation. This article provides an overview of EMS; the first author’s involvement with this question; the research question being asked; and a literature-based motivation for a study searching for an answer to this research question.

Keywords: coping strategies; emergency medical services; emergency medical workers; interventions; needs; needs satisfaction; needs theories; stress; stress reactions; stressors; support

The first part of this article will explain EMS, my journey within the EMS, and the research question I asked based on my experiences. The second part of the article will review the relevant literature as part of the motivation for a study based on the research question postulated.

THE EMERGENCY MEDICAL SERVICES (EMS)

EMS is an occupational field in which EMWs deal with trauma and medical emergencies on a daily basis. They, therefore, have to switch from low energy activities to high adrenaline performances and absolute focus in a matter of seconds. The environments in which EMWs work are unstructured; they often work irregular hours; they travel at high speeds; and they are frequently exposed to traumatic incidents. On top of this, they have to deal with the public and collaborate with various services such as the fire brigade, police and tow-in services.
Overall, EMWs manage their occupational environment very well – it seems as if they have built-in coping strategies that enable them to manage an excessively high degree of stress. However, at times this stress does take its toll in forms such as substance abuse, broken marriages, burnout, posttraumatic stress disorder (PTSD), or suicide.

Is this price acceptable? Can EMWs, their families, colleagues, or employers afford this? Can the public afford the threat posed by an EMW whose high stress levels result in substandard patient treatment or unsafe driving?

Reflecting on these issues has raised a few questions: Are systems in place to assist EMWs in dealing with the prevalent stress and trauma? Do these systems contain the interventions that are needed? If so, are they effective? Do the factors that are assumed to affect EMWs negatively really pose a threat? Are there other possible factors such as company politics, finances and life circumstances that are more bothersome?

Based on my own experiences within the field of emergency medicine, I asked the above questions and found the issues worth investigating. As the questions have developed over a number of years, this article will take readers on a journey of my involvement within the EMS. The dual purpose of this journey is to provide a better understanding of the context, and to build a foundation for the challenge to be investigated.

THE FIRST AUTHOR’S JOURNEY

Getting involved in the EMS

I am passionate about two fields of study, namely, psychology and paramedicine. The former introduced me to the latter, and ever since there has been an interesting reciprocal relationship between these two passions.

I completed a practical placement at the Tshwane EMS, which introduced me to the field of paramedicine. The placement entailed responding to emergency calls with EMWs and performing trauma defusing and follow-up debriefings with members of the public. I became intensely involved in this work, and on completion of my BPsych degree, I became a reserve counsellor at Tshwane EMS. This was followed by ambulance and fire fighting courses.

Noticing the cracks

When I started in the EMS with other psychology students we were welcomed, but with cynicism. We were often told: ‘Just don’t counsel me, I don’t need you’; ‘I don’t believe in psychology’; and ‘You don’t understand our work’. I found myself being
tested by means of black humour and gruesome stories, and often found my nose stuck inside crashed cars with dead bodies. I had to survive, and in order to achieve it, I became a student in this environment too. I learnt the names of the equipment, the meaning of the radio codes, the ranking system, the names of the officers, the names of the stations, and the details of the vehicles. I also asked questions: ‘Why are you doing this job?’; ‘How do you cope with the trauma?’; and ‘Which incidents are the worst?’ Gradually, I was drawn in and became part of the us while the EMWs informally started to share the challenges they experienced with me.

Involvement on this level meant becoming part of the politics and developing an awareness of the challenges EMWs faced. Most of the EMWs I met enjoyed their work, but many others were unhappy. I saw that EMWs were undervalued and poorly treated by patients and other members of the public, had problems with management and colleagues, and also experienced personal problems. This feeling sometimes escalated into a tragedy. EMWs with valuable years of experience resigned and took up jobs outside South Africa, leaving their families behind – not because they did not love or value them, but because something became too much. In some instances this something contributed to attempted suicide, which unfortunately, sometimes proved successful.

Could the EMWs not handle the trauma and tragedy to which they were subjected? My personal, simplistic point of view is: Yes, they can handle the trauma and tragedy. If not, they would have left the occupation a long time ago. In an interview, which took place during this study, a participant mentioned: ‘If it disturbed me that much I would have given it up a long time ago’.

While I do not wish to undervalue the role of the trauma and tragedy to which EMWs are subjected, my experience indicated that something else besides exposure to trauma had contributed to the above outcomes. What do most people think when they hear sirens and see ambulances? If the answer is death, dying, and horror, my comment is that EMWs are trained on a practical level to deal with physical trauma and tragedy. This is their work, which most of them are passionate about. In exploring why some EMWs struggle to cope with their work, two points are relevant. First, the EMWs who resigned left their employers, not their occupation. Second, they did not join other local EMS, they left South Africa. Putting these points into perspective, exposure to trauma becomes only one aspect of the tragedy, and the focus shifts to the occupation as a whole. It is, therefore, unlikely that the distress experienced by EMWs is due solely to their high on-the-job stress levels. The traumatic situations EMWs see and experience could not have these consequences, otherwise they would have left the occupation. Therefore, the question that has to be asked is: ‘What is wrong? What are we missing here?’.
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THE CHALLENGES EXPERIENCED AND THE PURPOSE OF THE STUDY

The purpose of the study was to investigate what was being missed in understanding why some EMWs seem unable to cope with their occupation. To taper down the perceived challenge and the purpose of the study to something that could be worked with, I highlighted two issues which had bothered me for quite some time. First, that direct exposure to occupational trauma does affect EMWs. This is well stated in the literature and is discussed in the literature review. However, many (if not most) EMWs have never consulted a counsellor or a psychologist. In addition, most South African EMS do not provide their employees with these crucial services. Second, when psychological services are provided, these are either on ad hoc basis or the services are not optimally utilised. The reasons for this are unclear. In my experience, superiors usually decide if, when, how, and in which form interventions are needed. The superiors assume to know what the needs of the EMWs are. I wondered if it was not time to find out from the EMWs themselves what they needed. Consequently, the missing link, the challenge that drove this study, became apparent: the needs of EMWs.

THE RESEARCH QUESTION

From the above observation it became clear that the challenge faced was that the needs of EMWs have been under-investigated. Psychological services and support cannot be rendered if the needs of the clients are unknown. The best psychologists can be provided, but what if there is a greater need for properly functioning equipment? If managers have insight into the range of needs that EMWs experience within their occupation, they will be better equipped for strategic decision making. Having the right foundation for making decisions could improve employee well-being, could improve services rendered to the public, and could save taxpayers and private EMS companies considerable sums of money. Therefore, the purpose of this study was to determine the needs of EMWs as suggested by descriptions of their experiences within the EMS. Thus, the research question was: What are the needs of EMWs, which are suggested by descriptions of their experiences within the EMS?

LITERATURE REVIEW

I found that the majority of the literature on emergency workers covered, in principal, the same topics, namely: typical (job) stressors, outcomes resulting from these stressors (reactions), and ways of coping (coping with stress). Although some
studies (e.g., Orner et al., 2003; Vogel, Cohen, Habib, & Massey, 2004) referred to needs, an in-depth discussion of the topic was lacking. This was also the case with the literature informing these studies as well as the majority of literature on EMWs.

In light of this dearth of information in the literature, and given the identified importance of needs in this context, this hitherto neglected aspect formed the main focus of the study. For these reasons the needs of EMWs are discussed prior to the literature on EMWs.

**Needs**

Needs are theoretical constructs; a need cannot be observed in a direct physical way and it is difficult to explain as it is an ambiguous concept (Lederer, 1980; Roy, 1980). It seems that the general consensus is that the satisfaction of needs is important for a happy, healthy life. Bay (1990) stated that the satisfaction of needs is a requirement for the safety, well-being, and growth of the individual, and Masini (1980) noted that it is necessary for survival and development within societies. Needs are also linked to being human, and could be material needs or non-material needs (Galtung, 1990). Rubenstein (1990) defined basic human needs as ‘universal, permanent, imperative, and an essential part of the definition of what it means to be human’ (p. 340). Although some authors, such as Moon (1991), conceptualised basic human needs as those required on a material level (e.g., food, water, and shelter), the basic human needs referred to by Rubenstein (1990) were not limited to only the physical. Davies (1988) termed these ‘basic but non-physical needs’ (p. 28).

Murray, whose work was published during the 1930s and 1940s, and who developed the Thematic Apperception Test, is seen as the father of modern needs theory (James & Mazerolle, 2002). In the literature on EMS very little reference is made to the needs of workers in this field. This could be explained by the history of motivation theories as described by Deci and Ryan (2000). Formerly, the study of motivation centred around the concept of needs. Needs specified the content of motivation and controlled action. However, the popularity of the cognitive theories during the 1960s led to the replacement of the needs concept by the concept of goals as dominant motivator.

It could be that when researchers started studying EMS, the era of the needs theories had mainly passed, thus directing the focus away from needs. Even recent literature makes few references to current needs theories. When needs are referred to, it is mostly within the context of organisational psychology. Thus, in-depth discussions of needs theories and the concept of needs are lacking in recent literature, and attempts to define the concept of needs are mainly found in older literature.
Building blocks of the needs concept
Self-fulfilment and human motivation are inherent to the needs concept (Lederer, 1980). However, there are many approaches to needs which all add to the richness of a picture of the human condition (Galtung, 1980). With this in mind, and as needs is a theoretical construct, I would not conclude that needs are only inherent to human motivation and self-fulfilment. For instance, there is evidence that development could also be included in such a list (should an attempt be made to compile one). Rist (1980) referred to the need approach to development, and several other authors (Galtung, 1980; Masini, 1980; Mitchell, 1990) have described the relationship between needs and development.

The nature of needs
Mitchell (1990) asked whether specific needs are equally important, or whether there are differences in the values individuals attach to needs. This question can be asked in terms of the needs of EMWs and the hierarchical approach to needs. If a hierarchy of needs does exist, the most important ones should be dealt with first. However, if needs carry different values for different individuals, provision should be made for dealing with all relevant needs at any moment in time (Mitchell, 1990).

Galtung (1990) argued against a hierarchy of needs under normal circumstances, stating that in situations of extreme deprivation a hierarchy might arise, but in general people will strive to fulfil the so-called higher-order needs even if the lower-order needs are not satisfied. Sites (1990) indicated that people experience either negative or positive emotions based on the situation they find themselves in and whether it poses a threat to the individual. If emotions are negative, people try to get rid of them, and develop a need for the conditions that will satisfy them.

In line with the above, basic human needs are argued by some to be static, and by others to be dynamic. If it is assumed that needs are static, the question becomes: How could this explain human behaviour that is not static? If it is assumed that needs are dynamic, it is also assumed that needs and need hierarchies can change, and that people will differ in terms of their needs and need hierarchies. Time and circumstances influence the changes in needs and need hierarchies (Mitchell, 1990), and even minimum needs can change (Masini, 1980).

Some theorists, such as Kelman (1990), have not made any assumptions about hierarchies of needs and which ones should be satisfied first. Kelman (1990) assumed that the frustration of basic human needs could threaten peace and social order. Although this refers more to large scale frustrations, this position does point to the effect of frustrated needs on the well-being of the individual. He also did not assume that the needs identified by theories are universal, but rather suggested that some needs are to be found across social and cultural borders. He further stated that it is
not always possible to satisfy all needs, but he regarded the satisfaction of needs as essential for the functioning of institutions and as being a reflection of their quality. In the long run the satisfaction of needs influences the stability and effectiveness of institutions, and the quality of life for individuals (Masini, 1980).

**Satisfiers of needs**

Klineberg (1980) related human activities to needs and what people do to satisfy them. There are two approaches to satisfiers. The first tries to pair needs and satisfiers, which means that each need has a specific satisfier. If not, the need can either not be satisfied, or is not vital (Friedman, 1980). Friedman initially suggested that satisfiers are scarce most of the time. Later he stated that satisfiers could either be *hard* (e.g., food), fulfilling material needs, or *soft* (e.g., freedom), fulfilling immaterial (non-material) needs. When hard satisfiers are scarce, the quantity is not enough, while the scarcity of soft satisfiers points to limited access. The arguments highlighted here are that material needs are satisfied by material (hard) satisfiers; that needs and satisfiers are paired; and that satisfiers are scarce. However, these statements are not applicable to all situations. For example, food as a hard satisfier satisfies a physical or material need which the individual becomes aware of through the sensation of hunger. But food can also satisfy non-material needs, such as comfort or relaxation. Therefore, a type of need is not necessarily satisfied by a satisfier of the same type; and needs and satisfiers are not necessarily paired. Based on this, although specific satisfiers might be scarce, the range of satisfiers which could satisfy a specific need is not necessarily limited.

The second approach, therefore, argues, amongst other things, that needs do not necessarily have specific satisfiers. Galtung (1990) believed that satisfiers are not universal, a point supported by Lederer (1980), who stated that the satisfaction of needs depends on culture. Klineberg (1980) went further and proposed that needs depend on the standards and finally the culture of a group, while Roy (1980) argued that needs differ based on society and time, and that needs are shaped by social context. Masini (1980) also related needs to groups within societies. He cited the example of a village that chose leaders who maintained the rural character of their village. In this village the hierarchy of needs was identified as food, housing, health and religion. Through their culture, they unknowingly maintained their needs. As circumstances around them changed, work and political identity became part of the hierarchy.

Inter-group relations are affected by basic human needs. In order to improve these relations and to resolve conflict, needs have to be handled correctly (Fisher, 1990). Relevant to this is that needs themselves do not directly lead to conflict.
Rather, conflict is caused by a shortage in whatever is needed to fulfil those needs (Mitchell, 1990).

Needs may be fulfilled to various degrees; if fulfilment is not adequate the altered state will only be temporarily. The assumption is that various routes may be followed to satisfy needs, and that the success of each will differ in terms of degree of fulfilment. Other assumptions are that needs could stand in for each other – an adequately fulfilled need can decrease the intensity of another need (Mitchell, 1990), and that satisfiers are formed (Potapchuk, 1990). Potapchuk (1990) believed that this is good news considering that there is often a shortage of satisfiers.

**Literature on EMS**

An overview of the types of research mainly conducted within the EMS will be given. This may aid readers’ understanding of the importance of investigating the needs of EMWs

*Trauma-related stressors*

The majority of EMS studies have focused on the exposure of EMWs to trauma. These studies investigated topics, such as trauma-related stressors (e.g., Regehr, Goldberg, & Hughes, 2002; Revicki & Gershon, 1996); the consequences of traumatic stress (e.g., Moran, 1998; Okada, Ishii, Nakata, & Nakayama, 2005; Smith & Roberts, 2003; Vettor & Kosinski, 2000); risk factors contributing to the development of symptoms (e.g., Aasa, Brulin, Angquist, & Barnekow-Bergkvist, 2005; Genest, Levine, Ramsden, & Swanson, 1990; Lowery & Stokes, 2005; Marmar, Weiss, Metzler, & Delucchi, 1996; Moran, 1998; Okada et al., 2005; Ruzek, 2002; Vogel et al., 2004; Weiss, Marmar, Metzler, & Ronfeldt, 1995); the symptoms that develop (e.g., Aasa et al., 2005; Bennett et al., 2005; Lowery & Stokes, 2005; Marmar et al., 1996; Miller, 1995; Okada et al., 2005; Olff, Langeland, & Gersons, 2005; Vettor & Kosinski, 2000; Weiss et al., 1995); and the coping strategies being deployed by the EMWs (e.g., Beaton, Murphy, Johnson, Pike, & Corneil, 1999; Hyman, 2004; Moran, 1998; Moran & Massam, 1997; Olff et al., 2005; Orner et al., 2003; Regehr et al., 2002; Ruzek, 2002; Shakespeare-Finch, Smith, & Obst, 2002; Vogel et al., 2004; Wagner, 2005).

*Occupational and organisational stressors*

Although the majority of studies in the literature have focused on trauma-related stress, occupational and organisational stress is increasingly enjoying attention, which brings balance to the picture.

The focus areas of these studies included colleagues, responding to false alarms, and conflicts between work and home (e.g., Bennett et al., 2005). Others focused on administrative issues, such as changes in scheduling of shifts, and shift work and
partner switches (e.g., Vogel et al., 2004). Workloads and waiting to be dispatched have also been focus areas for investigation (e.g., Aasa et al., 2005). Several studies compare organisational stressors with traumatic stressors (e.g., Bennett et al., 2005; Brough, 2004; Burke & Paton, 2006). The consequences of organisational stressors have also been investigated, as well as factors influencing the development of symptoms due to occupational stress (e.g., Maslach, 2006; Maslach & Jackson, 1981; Revicki & Gershon, 1996).

Support in the EMS
As the majority of the literature focuses on trauma-related stress, the stress-related support rendered to EMWs mostly seems to deal with their exposure to trauma. Support is either formal or informal, and is either sought or provided. Support is a multiphase concept within the emergency context; and there are various support systems which provide varying degrees of effectiveness. These are discussed in the literature within the categories of social support (e.g., Beaton, Murphy, Pike, & Corneil, 1997; Hyman, 2004; Vogel et al., 2004), and organisational support (e.g., Brough, 2005; Miller, 1995; Moran, 1998; Moran & Massam, 1997; Okada et al., 2005; Orner et al., 2003; Regehr et al., 2002; Revicki & Gershon, 1996; Ruzek, 2002). The latter includes both informal and formal ways of support. Informal organisational support is mainly provided by colleagues, whereas formal support includes psychological debriefings, such as the Critical Incident Stress Debriefing, and Brief Education and Support.

User-focused studies
Studies on support, and specifically interventions, within the EMS have seldom focused on the needs of EMWs as the primary stakeholders. This means that the scope of the studies was often narrow and did not cover or recognise all aspects required for supporting EMWs. One such example is early intervention and debriefing. To explain this, I will adapt the Chain of Survival, as used in the EMS, to explain the importance of acting fast and effectively, to the context under discussion.

The links in the chain are early awareness, early access, early Cardio-Pulmonary Resuscitation (CPR), early defibrillation, early advanced life support, and early analysis. Workers need to be aware of things that could go wrong and take steps to prevent them. They also should be able to recognise danger signs and symptoms, and access help as soon as possible, followed by early initiation of CPR. CPR keeps the brain and heart alive to ensure better outcomes of further much-needed interventions, such as defibrillation and advanced life support. In other words, CPR alone is often ineffective. Therefore, it must be recognised that further interventions might be indicated, and these have to be provided for. Finally, the actions performed have to be analysed in terms of their effectiveness, and should be improved if indicated.
Early intervention and debriefing can be seen as the CPR in the chain. As such, these procedures will contain EMWs until more specialised support (defibrillation and advanced life support) is indicated and accessed. Ultimately, prevention is better than cure, thus EMWs’ initial attention should be directed at early awareness and early access in an attempt to prevent negative consequences of emergency work. Although exposure to traumatic incidents cannot be prevented, early awareness and access can lead to innovative measures to minimise the effects of trauma. Thus, as the exposure to trauma cannot be controlled, other aspects of the environment can be managed in order to mediate the effects of exposure to critical incidents. An important part of this process is taking the needs of the stakeholders into account.

A few interventions do take these primary stakeholders into account. Orner et al. (2003) studied the preferences of emergency workers when dealing with trauma. They compared the preferred coping and adjustment strategies with the principles underlying the delivery of debriefings, and found that there were few similarities. One such example is talking about events. The debriefing protocol indicates adherence to an agenda of successive stages when talking about events. In Orner et al.’s (2003) research, most of the participants deliberately talked about the events, but some preferred to avoid reminders thereof. Worthy of notice is that those who deliberately talked about the events preferred to do so on their own terms. In the end, the researchers argued that service users, in this case emergency workers, have to be consulted in order to establish informed, evidence-based interventions.

Another important study that focused on these stakeholders was conducted by Burke and Paton (2006). They argued that studies on organisational stress mainly focused on pathogenesis, which led to an oversupply of interventions during the tertiary phase of stress development. Thus, interventionists try to prevent stress pathology in the emergency services after exposure to critical incidents. This approach to interventions led to the belief that stress follows incidents, leaving organisational factors out of the picture. Burke and Paton (2006) expressed the importance of seeing all experiences as having the possibility of being either negative or positive, which implies a focus on both the negative and positive experiences of employees after incidents. Second, they emphasised the importance of organisational climate to employee well-being. In their study, Burke and Paton (2006) found that organisational climate is predictive of job satisfaction, which ultimately influences employees’ interpretation of their experiences. Finally, these authors stressed that positive outcomes had to be recognised, that organisational processes had to be included, and that stress prevention should start before exposure to critical incidents.
Returning to needs

Orner et al.’s (2003) investigation into preferences regarding coping and adjustment strategies came close to investigating the needs of EMWs. Even though their findings did not apply to or explore needs specifically, they did recognise the importance of establishing the needs of the end-user of interventions. Few studies have come closer to covering EMWs’ needs than this one.

It is important to notice that needs are more fundamental than preferences. Preferences are what people wish for, but unfortunately what they wish for is not necessarily what they need. Bay (1990) categorised needs separately from wants, demands, and preferences, while Galtung (1980, 1990) not only categorised needs separately from wants, but also distinguished them from wishes, desires and demands. Although these aspects are not necessary, they may also communicate needs. This is noteworthy as people themselves often do not know what their needs are, and therefore cannot express them. Sometimes, people do not have the opportunity to express their needs. If people’s needs could be determined, the principles underlying them might be applied more diversely within the EMS. It is pertinent that EMWs are not only concerned with the performance of their job, but their function as part of an organisation. It seems as if researchers and psychologists have overemphasised the negative aspects of the job – the guts rather than the glory. Maybe because most people do not get the chance to be the heroes, they try to distort the image of the heroes by reducing their experiences to ultimately being negative and inevitably having poor outcomes. However, EMWs do not see themselves as heroes. They like their job and they chose it for the passion thereof. It is also their means of income and the means by which they support their families. Ultimately, it is neither heroic, nor disabling.

Moran (1998) stressed that individuals do not all react to traumatic stress in the same way. This already indicates that there will be differences in the interventions required for various individuals. However, few studies have investigated the needs of EMWs before implementing interventions, while some studies have only mentioned establishing the needs of stakeholders in passing. If these studies did investigate needs, they omitted to describe this process, which indicates the level of importance ascribed to the needs of EMWs. An example is the study by Vogel et al. (2004), which explored needs, but only with reference to the crisis support team and not other relevant parties. In this study, the researchers joined paramedics on the road to improve their understanding of emergency work, as well as the emergency workers’ concerns and needs. However, the investigation of these concerns and needs seemed limited to the actual performance of the job and to needs of the paramedics’ patients.
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It is, therefore, proposed that researchers take a step back and investigate the needs underpinned by preferences, as well as other aspects so often studied in relation to paramedics. It will not be sufficient to return to the findings of investigations in an attempt to determine the participants’ needs, as the context and processes are important when investigating theoretical constructs such as needs. In addition, needs have no limits and a proper investigation thereof is dependent on the methodology applied.

CONCLUSION

This article provides a motivation for the research question: ‘What are the needs of EMWs as suggested by descriptions of their experiences within the EMS?’. In addition, it gives an overview of the theories on needs which indicate the importance of the satisfaction of needs for aspects such as motivation, self-fulfilment, and development. This is followed by an overview of the literature on the EMS in order to indicate that it mainly focused on stress and stressors, risk factors, symptoms, coping, and support. Looking at the occupational context of EMWs, this focus is understandable. But with the importance of needs satisfaction in mind it is crucial to include needs in studies on the well-being of EMWs.

NOTES

1. This article is written from the perspective and experiences of the first author, Helena Erasmus.
2. It is specifically requested by the employee or the employer decides when it is needed. The latter is often determined by the severity of patient injuries, the scale of the incident, suicide attempts by colleagues and visible signs of stress in employees.

ENDNOTE

The article is an introduction to a series of articles based on the following dissertation: Erasmus, H. C. (2008). An investigation into the needs of Emergency Medical Workers and how these could inform management practices. Unpublished Masters dissertation, University of South Africa.
BIOGRAPHICAL NOTES

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