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Living in Critical Times: The Impact of Critical Incidents on Frontline Ambulance Personnel: A Qualitative Perspective

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Abstract: *Little is known about the impact of Critical Incidents (CIs) on the lives of ambulance personnel. One-to-one interviews were conducted with 27 participants who had experienced CIs during the previous 12 months in order to: assess the nature and impact of CIs on health and well-being; examine attitudes toward support services; and explore barriers to service use. The results showed that incidents involving children, suicides, and grotesque mutilation were the most distressing. Participants reported a wide range of physical and mental health problems including sleep difficulties, angry outbursts, irrationality and feelings of alienation. Key themes included: low support service uptake due to fears relating to confidentiality and machismo; a perceived lack of concern and support from management; and a need for professional counselling and stress awareness training. Emergency Medical Controllers (EMCs) also reported a number of difficulties unique to their role. The findings suggest that exposure to CIs has a significant impact on health and well-being; this has important implications for recognizing and appropriately addressing the health and training needs of ambulance personnel, including the effective management of Critical Incident Stress. [International Journal of Emergency Mental Health, 2008, 9(3), pp. 215-224].*

Key words: *Critical Incident Stress, Emergency Medical Technicians, Emergency Medical Controllers, qualitative research, dispatchers.*

Background

Emergency Medical Technicians (EMTs) and Emergency Medical Controllers (EMCs; known as *dispatchers* in the United States) are often exposed to high levels of Critical Incident Stress (CIS), which refers to stress arising from a disturbing incident (i.e., a Critical Incident) that overwhelms an individual's usual coping abilities (Alexander and Klein, 2001). Previous research has shown that ambulance personnel are highly vulnerable to the effects of CIS, with up to 20% reporting symptoms of trauma (Ravenscroft, 1994; Clohessy and Ehlers, 1999; Ward et al., 2006). These, and other health problems described in a recent systematic review (Sterud et al., 2006) include physical and mental health (and somatic) problems, and higher standardized mortality rates. However, there is a marked absence of qualitative data and no information is provided on EMCs. Sterud and colleagues highlight a

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need for a psychological perspective in this area as well as more qualitative studies into the subjective experiences and views of ambulance personnel on the effects of work-related stress.

Very little is known about the impact of CIS on ambulance personnel working in Ireland. At the time of this study, the Irish health service comprised 8 health boards, each of which had its own ambulance service and Chief Ambulance Officer. The current study was carried out in one of Ireland's largest services, serving a population of 1.6 million within an average radius of 622 square miles. EMTs within the Irish ambulance service typically work in pairs, while EMCs are responsible for organizing, reporting, and communicating on ambulance services. The local management of the service remains the duty of Ambulance officers (usually one in every station) who provide day-to-day middle management to stations throughout the service region under the governance of a Chief Ambulance Officer. A Critical Incident Stress Management program, initiated in 1998, involved the distribution of a number of CIS leaflets and posters to all stations with the aim of raising awareness of CIS. A Peer Support program was also initiated whereby a Peer Support Worker (PSW) is drawn from the ranks of one's colleagues under the ICISF Model (previously known as the Mitchell Model) of CISM (Mitchell & Everly, 2001). The PSW's role includes assessing the need for defusing; initiating contact with 'at risk' staff; providing short-term peer counselling; and liasing with other peer support providers.

The current study forms part of a larger investigation into the nature and extent of CIS in a large ambulance service in Ireland. The first stage of the study involved a documentary analysis of current CIS policies and procedures; one-to-one interviews with key service providers (n = 12); and a cross-sectional postal survey (n = 180). The principal aim of this second stage of the study was to ascertain, using qualitative methods, the impact of CIs on frontline staff by allowing them to tell their own stories. These participants also completed a number of self-report measures of overall health and well-being, but only the qualitative data are presented here. The specific objectives were to ascertain the nature of CIs experienced by EMTs and EMCs; to explore the impact of these on their day-to-day lives; and to assess their attitudes toward current support services being provided for Irish ambulance service staff who have experienced difficulties related to CIS.

METHODS

Participants

The results of the Stage One survey showed that 98 of 112 respondents (87%) had experienced one or more CIs during their career, approximately two-thirds of whom (64/98) had experienced a CI during the previous year. Twenty-seven members (42%, 27/64) of this last group (21 EMTs, 6 EMCs) volunteered to participate in one-to-one interviews.

Measures

An interview schedule was devised on the basis of a review of the literature coupled with the Stage One findings. Questions covered a range of topics including job satisfaction; ratings of CI-induced stress; the impact of CI(s) on day-to-day living; support from management; and views of support services/procedures. Some closed questions were included to elicit background information and to facilitate comparisons across participants. The responses to the remaining questions were transcribed verbatim and subjected to a thematic analysis (see Hayes, 2000) to identify key themes and sub-themes related to interviewees' personal experiences. A random sample of transcripts was read and coded by both authors in order in ensure good reliability and validity.

RESULTS

Participants were all male (mean age: 42, range 31-60, SD = 8) and more than half (15/27) had more than 16 years' experience; the remainder had between 1 and 5 years (6/27) or 11 and 15 years (6/27) of experience respectively. The themes and sub-themes identified from the analysis are described below.

Theme 1: The nature of the Critical Incident(s)

'Taken before their time' - premature deaths: Participants recounted with great clarity and poignancy some of the most distressing incidents to which they were exposed, most of which revolved around the death/injury of children (Table 1). These included Cot [*Crib*] Deaths, emergency childbirth, neonatal resuscitation, and other injuries or fatalities to children. Twenty interviewees reported the last of these to be particularly stressful, while 11 participants found Cot Deaths to be particularly harrowing, not least because they also had to deal with traumatized parents. Another EMT

spoke at length about an incident during which he was required to carry out a lengthy resuscitation of a newborn baby. He recalled the mother's trauma and afterwards described how he "…was having nightmares about it. Every time I saw a baby, I was getting shivers down my spine." All six EMCs also reported high levels of stress when taking calls involving children and in providing reassurance to traumatized parents. Many of the interviewees also spoke about identifying with the victim either as a parent or as an individual at a similar stage of his/her life.

Eight of the participants reported suicide incidents to be the most traumatic due in large part to overriding feelings of helplessness, and the trauma and tragedy for the families involved. For example, one 38-year-old EMT described a death by suicide on a train track and his overwhelming distress for the family. He also reported that he had experienced a disturbing flashback to that incident after returning to the scene recently. Like many of his counterparts, he reported considerable distress in dealing with the body.

Serious and grotesque mutilation: Ireland has a high (per capita) number of Road Traffic Accidents (RTAs) - especially among young males - and it is perhaps not surprising that 17 of the interviewees found road and rail accidents to be extremely distressing. Other CIs included cardiac arrests, fire fatalities, murders, physical abuse, and accidents involving the ambulance. A selection of illustrative quotes is provided in Tables 1 through 6.

Table 1.
Nature of Critical Incidents

"I can honestly say they [Cot deaths] *are the worst* [interviewee gets upset]*...there's nothing worse than carrying a dead infant. For some reason, they don't look dead but you know they are and then you've the parents as well and it just hits you to the heart and you get frustrated. COT deaths are one of them things that stick with you for life."*

"…*the remains that I carried out* [from a caravan fire] *were indescribable*."

"…*there was a hanging* [participant gets upset] -

I've had lots of hangings but this one was like...almost a photograph of my own son, same age, same build. When we actually had him on the stretcher and I looked at him, it just started getting me upset. The family were there and they were all upset and the more I stayed with them… [participant gets upset] *... I just had to walk away otherwise I'd have cracked up over it."*

"*There were two fellas burned to death in a car. That was last year sometime. They were in their mid-twenties. It was the undignified way, the condition of the boys, you know. That was nearly a year ago but it sticks out in your mind*."

"[It was] *something like you would see in 'Nightmare on Elm Street.' There was that much blood all over the walls. The woman was killed – that stuck in my mind alright*."

"...*that knocked the wind out of me* [15 year old fatality in RTA]*...afterwards that night, particularly when you're lying in bed, it just flashes back to you because I might have been looking at my own son lying there on the stretcher with blood everywhere...that one had an effect. It took a lot out of me."*

"...*a young child was murdered. I lost a lot of sleep after it and I still remember the father's words on the phone...I hated coming to work for a while. It shakes you."*

Theme 2: The Impact of the Critical Incident(s)

Stress and coping - the psychological impact: A second key theme explored during the interviews related to the perceived negative impact of a CI(s) on the interviewees' lives. Eighty percent of the CIs were rated as 'extremely stressful' with symptoms lasting up to 8 months. Two key subthemes were explored here, relating mainly to the psychological/emotional impact of the CI(s), but also relating to effects on physical health and overall quality of life (see Table 2).

The most common psychological effects reported included angry outbursts, sleep problems, recurring dreams and nightmares, an increase in alcohol consumption, feeling alienated from other people, and an inability to relax. Many also described feelings of despondency, intrusive thoughts of the incidents, and flashbacks, while some others said that they had become irrational, and over-protective due to the high levels of stress they encountered in the course of their

work (Table 2). The delayed psychological impact of many of these incidents was also commonly reported. Four participants also reported having taken long-term sick leave during the previous year due to job-related stress, saying that they felt continuously tired, fatigued, and/or moody.

Interviewees also alluded to the cumulative nature of CIS, which appeared, in some cases, to be compounded by interpersonal conflicts at work and personal problems which left them unable to cope. Furthermore, the common perception that EMCs are not exposed to stress was not supported by the, albeit smaller, number of EMCs included here, all of whom referred to the stress they had experienced when dealing with CIs. Only five interviewees reported no negative effects on their mental health and an examination of their responses revealed a recurring, underlying machismo, which set them apart from the remainder of the group. Only three of the interviewees sought help from a professional counselor or a psychologist.

Table 2.
Impact of Critical Incident

Stress and Coping:
"*I had sleep problems, I couldn't eat- lost weight. I smoked more. - I wouldn't go to bed...I was walking the house all night...I'd go to bed in the middle of the day… forgetting things…pure and utter stress...*"

"I was very nervous and agitated for weeks after this...I woke up several times in a lather of sweat thinking that I or my family would be shot."

"*I nearly had a complete breakdown that night when I got home...I drank a full bottle of Jack Daniels [*whiskey*]...I couldn't take any more…*"

"*Before I came into this job, I wanted to help people and save lives and I probably did on numerous occasions but it doesn't matter any more, it just doesn't matter...*"

"You become irrational I think really, slightly irrational and over protective, the way I drive with my wife and kids in the car. If the kids go out on the bike without a helmet you're running the streets trying to find them...They can't climb walls or trees, they can't go out on the roads...Every headache is a brain tumour all that kind of thing you know."

Physical Health and overall quality of life:
"*Since I joined this job, I developed diabetes. Because of the nature of the job, I wasn't eating properly. I had no proper lunch breaks therefore the diabetes got worse and that's how I ended up being out sick for 14 weeks…..*"

"*...if I have a bad day in work and I arrive home, I wouldn't be the welcoming husband. I'd be like thunder some days..I don't want to talk to anyone.. I just want to be left alone*."

"*You can't relieve the adrenaline that's building up on the job...it's going to make you ill*."

Machismo attitude
"*You learn to deal with it, you learn to accept it. It's a job that you either want to do or you don't want to do...It's like a vocation...you can't just go in and just go through your day as if nothing is wrong...That's not the type of job it is."*

"*It* [working as an EMT] *has not affected my health...It makes you more confident going into situations dealing with people."*

"*If it does affect them* [other EMTs]*, they shouldn't be in the job.*"

Physical health and overall quality of life: The most commonly reported effects of CIS on physical health included weight gain, back problems, and lack of appetite. Many respondents reported that it was difficult for them to maintain or improve their general levels of fitness because of shift work and the lack of on-site exercise facilities. Others reported smoking-related illnesses due to an increase in their smoking habits.

A sub-theme emerged, related to the effect on family relationships. Over half of the interviewees (14/27) mentioned that their personal relationships and their home lives had been negatively affected due to work-related stress (Table 2). Some reported having 'angry outbursts' at home after a stressful day, or not being able to talk to their partners about distressing incidents. The long working hours and shift work also reduced the amount of time they spent with their family.

Theme 3: Organizational hassles

A third theme related to the participants' attitudes toward and views of the general management of the ambulance

service. These were predominantly negative in nature and revolved around several emergent sub-themes.

Interpersonal conflict: Ten respondents alluded to the amount and nature of interpersonal conflict and bullying in individual stations which appeared to add significantly to their overall stress levels (Table 3). For example, one 53-year-old EMT found that he had more difficulty in coping with the stress he encountered in the station than '*on the road*.' Other EMTs spoke of how they did not mind *'doing the job'* but referred to '*issues in the base and their colleagues'* that were a major source of concern, such as unprofessional conduct which was not appropriately managed. All but one of the EMCs (5/6) also indicated that EMTs regularly abused them on the radio when receiving calls.

Table 3.
Organizational Hassles

Interpersonal Conflict:
"...*they* [fellow EMTs] *actually took the rubber protection off the ear pieces of my stethoscope and glued the tops of medication bottles that I had in my equipment bag*."

"...*she* [fellow EMT] *started screaming at me to go back to the station... I knew we couldn't…she started screaming at me again, so loud like it was unbearable... I had to get out of the ambulance. I couldn't stick it any longer. I felt very stressed after that*."

"*EMTs have messed me over the airways too many times...they question everything I do. They're shouting back at you over the airways - they try and put you down all the time…it's a case of us* [EMCs] *and them* [EMTs]*..."*

"*All they* [EMCs] *want to do at the end of their shift is to make sure that they've left a clean screen and they don't care who pays for it*."

Lack of concern from Management:
"*You're only a number. You're counted in pounds, shillings and pence...they [*mgt*] never come and ask how you are*."

"We are heroes to the public when we arrive on scene but we are only tools to management."

"*...if they think you're suffering from stress, then they think you shouldn't be doing the job. If you can't handle it, get out!*"

Lack of concern/support from management: The perception of an absence of 'climate of care' on the part of management (i.e., at Officer level and above) was a prominent theme - reported by all but four of the participants (Table 3). For example, more than three-quarters of the participants (21/27) alluded to the lack of recovery time allowed after a CI, while difficulties for non-rostered staff were also noted (e.g., varying travel times to stations) and most importantly, the failure on the part of management to acknowledge the impact of Critical Incidents. Some participants felt that management only paid 'lip service' to the Peer Support service and that, realistically, it was not a priority for them perhaps because, as a number of EMTs suggested, they had no personal experience of CIS.

Other EMTs also expressed concerns about responding to further calls after exposure to a CI. They felt that they might be unable to give the next patient their full attention, or be so distracted that they would be unable to adequately carry out their life saving skills. Clearly, this could have serious consequences. In general, the EMTs felt that management were too distant to appreciate the nature of on-the-job stress.

Training: Almost two-thirds (17/26) indicated that the training they had received to help them deal with CIS was 'not at all adequate,' while only 9 considered it to be 'reasonably adequate.' Fifteen participants suggested that training and education on stress in general should be an integral part of their basic training. The major training needs included communication skills, coping skills, learning how to detach from a CI or to manage one's emotions, facilitating discussions concerning CIs, preparatory CI training, improving awareness of support available, and education regarding signs and symptoms of CIS.

Other participants felt that additional training would be beneficial for new recruits who have no previous experience in emergency work. The general view of the interviewees was summed up well by one EMT who stated, *"The more in-*

formed you are regarding stress issues, the better." Another suggested that the amount of training received is not beneficial unless staff are given appropriate recovery time after a CI. Others highlighted a need for management (i.e., ambulance or station officers) to be properly trained to recognize signs of stress and, more importantly, to be able to take effective and appropriate action (e.g., to allow some 'down-time' or advise/refer to a professional counsellor; see Table 4).

Table 4.
Training

"*You are not given any training whatsoever to deal with stress involved. It would help to cope with it a bit better -* [you] *could go home and detach from it or take your mind away from it."*

"*I think each individual buries it,* [CIS and their feelings]. *Everyone could benefit from more education and training as regards CIS. I think that would be a major benefit, just to have it out in the open to make sure that everyone knows it's there. Everyone has it…we're still thinking we don't suffer mental problems, that's a big drawback I think."*

"*Its still a very taboo subject among the staff, even if you only mention the word 'stress', it implies that you are not able to cope...A lot of the staff they're just not au fait with it or dealing with it. If they* [management] *could go a step better and let people know that the service is there for them and* [that] *they're not jeopardising their position by seeking out these things. That's the main concern among staff..."*

Theme 4: The perceived effectiveness of Peer Support

Issues regarding the Peer Support Service related principally to barriers to using the service, fears of 'discovery' by management and issues related to machismo (Table 5). While all of the participants were aware of the Peer Support service, almost two-thirds (17/27) reported that they had never seen or read the CIS information leaflets or posters which form part of the service. Only two of the interviewees had used the service and felt that it had been beneficial as they were subsequently referred to counselling. Most of the comments suggest a general perception that PSWs are not appropriately qualified to undertake such a role, while concerns about confidentiality were also highlighted. Many felt that the support service was a service 'in name only,' while others stated that it should be more widely advertised. There was also a commonly held view that only mental health professionals should manage CIS and that staff should have access to a 24-hour helpline. A number of EMTs indicated that managers should be more closely involved with the service and should promote it more actively in order to overcome barriers of fear, trust, and machismo.

Table 5.
Peer Support Service

"I think that for EMTs it seems to be a good service, but for EMCs it's not, and needs to be improved. Resources are restricted which causes extra stressors for everyone, - flared tempers, its not good for the service and has repercussions."(EMC)

"No EMT feels the need to approach PSW due to it being a sign of weakness"

"Not comfortable with people selected for the role, feel they are as stressed as I am."

"Not qualified to give help or advice, confidentiality also a big issue would not dream of confiding in anyone at work - need professionals."

"Our PSW lacks experience within the service and show signs of stress himself."

"Our PSW would not keep any information confidential."

"There's nothing worse if we get a bad call, be it a RTA or a cardiac arrest, and we finish up the call at the hospital, pack up our gear, clean up the ambulance and we get another call. We're taking all the hassle and stress with us to the next call. It might only be as simple as a drunk or something and you might take out your anger on them and not meaning to do it. But it's something that we need to be aware of and deal with..."

Theme 5: EMCs - the 'forgotten few'?

Potential sources of stress for EMCs were multi-faceted and a source of considerable concern for all six interviewees who felt that neither Peer Support staff nor management had any concern for their well-being (Table 6). Stress in 'Control' appeared to be a daily occurrence as EMCs were constantly dealing with 'traumatic callers' (in contrast to EMTs who may not necessarily experience this on a daily basis), especially calls involving violence or children. While the EMCs acknowledged that they do not deal physically with trauma, they reported that they, nonetheless, experience stress when engaging with distressed callers. Interviewees alluded frequently to repetitive calls from patients and/or their families as they become increasingly traumatized while waiting for the ambulance. Dealing with abuse, animosity, and traumatized callers was also commonly reported; four EMCs reported that they had been threatened on several occasions (Table 6).

Other potential sources of stress may arise from dealing directly with EMTs on the radio as well as members of the fire and police service, GPs, hospital staff, and undertakers. All of the EMCs reported that their training was inadequate. The solitary role of an EMC was also highlighted as being particularly problematic. In the two Control stations included in this study, there is one EMC on duty at night and on weekend shifts. The EMCs indicated that these are often the busiest shifts and that this solitary role can be stressful and isolating, particularly if they deal with a 'bad call' and have no immediate support.

Table 6.
EMCs (Dispatchers)

"*We get stress in Control from all sides -the Gardai* [Irish police force], *fire services, EMTs on the radio and then trying to calm people down on the phone……it can be very difficult to cope..."*

"*We are helpless at the end of a phone and we worry constantly about the outcome. Psychologically, it's torture...we don't know how the patient is after an incident - we can't follow up every call - there are just too many...but when I get home, I start to wonder about the callers...its not healthy, we don't get closure like the EMTs*."

"*We definitely need more training in how to calm people down on the phone, and how to deliver instructions over the phone to people on the scene. We could also benefit from training on how to calm ourselves down after an abusive caller."*

"*The animosity from EMTs and from the public happens on a daily basis...Control is a pivotal point...you get embroiled with all the services. You can get very frustrated if the EMTs are out on the road screaming for a fire brigade...so you can get it from every angle and get it very quick and then it can stop all of a sudden...we are left wondering...hanging…but we still have to deal with the next call*."

"*Today we were 'out the door'* [very busy] *with calls...We had hospitals ringing looking for routine transfers and we had to say to them we couldn't do it...this builds up in you...pressure, pressure all the time. I think sometimes that some of the lads might blow a gasket if they don't get some release or relief……Some of the lads can cope with it, but you need release and support from management."*

"*In here* [in 'Control]' *you're 'in a tunnel'. You can hear what's going on, but you can't see or touch it."*

"*Sometimes it can take a few hours to come back to yourself after a stressful caller*."

DISCUSSION

This study qualitatively explored the impact of exposure to one or more Critical Incidents on the health and well-being of EMTs and EMCs. To date, there is no published research in Ireland in this area, while little is known within the wider literature about peer support in emergency care, or the impact of CIS on EMCs. The lack of qualitative research in this area has also prevented a full exploration of the nature and experience of stress in frontline ambulance personnel.

The findings indicate that some CIs are more traumatic than others and may, therefore, have a more significant impact on mental health. CIs involving children, suicides, and RTAs appeared to be most distressing, a pattern also seen in previous work (e.g. Van der Ploeg & Kleber, 2003; Alexander & Klein, 2001). Additionally, the findings support those of

earlier studies which have highlighted the serious psychological impact of dealing with injured or dead children (e.g., James, 1988; Dyregrov & Mitchell, 1992). Incidents involving suicides were also described as very traumatic, not least because of the overwhelming sense of helplessness which was compounded by the distress of family members. Similarly, Bryant and Harvey (1996) reported strong feelings of helplessness in helpers and rescuers after a traumatic incident. The rating of most of the CIs as 'extremely stressful' is supported by the results of the standardized self-report measures, which were administered at the same time. Briefly, these showed poor physical and mental health (including high levels of PTSD symptoms) and moderate levels of emotional exhaustion and depersonalization. Many interviewees also described the cumulative effect of several CIs which had occurred over a relatively short period and which had impacted negatively on their overall health.

The need for more recovery ('down') time after a CI was identified by three quarters of participants; Alexander and Klein (2001) suggest that the nature of the incident and its impact may be related to recovery time availability. This, coupled with the other findings, highlights the need to provide more support for EMT/Cs in the aftermath of these kinds of incidents as well as appropriate training to help manage CIS. However, this raises questions about the appropriate use of available resources and the capacity and/or willingness of senior managers to respond sensitively and appropriately to the needs of frontline staff. The absence of a 'climate of care' at managerial level was a prominent and recurring theme in this study and has been highlighted as a significant stressor among ambulance personnel elsewhere (e.g., Alexander & Klein, 2001; Mahony, 2001).

Mitchell and Everly (2001) describe a resistance within the emergency services to acknowledge the presence of any psychological problems among staff which may hinder the effective identification and management of CIS. However, Alexander and Klein (2001) suggest that displacement may, in part, account for this, whereby some staff may not admit to or be able to tolerate their own emotional vulnerability with the result that they may blame "the system" instead. Therefore, the role of middle management also ought to be clarified in relation to the acknowledgement and prevention or management of CIS and to other work-related stressors that may exacerbate Critical Incident-related stress.

The concept of Critical Incident Stress Management (CISM) and Peer Support has received considerable support since the 1980s, with the work of Mitchell (Mitchell, 1983; 1988) and Dunning (1988) in the US, but participants expressed a largely negative view toward using the PSWs attached to the current service. Barriers to service utilization included their perceived lack of training, concerns about confidentiality, feelings of embarrassment, peer pressure, and the perceived negative views of management. Some of these appear to stem from the 'machismo' attitude that prevails within this male-dominated occupational group. The results suggest that confidence-building measures may need to be implemented in order to promote a greater awareness of the service and to improve uptake. Many interviewees believed that mental health professionals or qualified counsellors should be routinely available to all staff with the support, in some cases, of a 24-hour helpline to accommodate shift-working. According to Mitchell and Everly (2001), the use of mental health professionals in combination with specially trained peer support personnel are encouraged when dealing with high-risk occupations such as ambulance personnel. They further emphasize that the application of CISD by inadequately trained staff may cause the process to fail; hence the importance of providing appropriate training for the PSWs in this study.

Little research has examined the impact of work-related or CI stress on EMCs. While our findings should be interpreted with caution in view of the small number of EMC participants, four key issues were identified relating to this group, including the lack of support from management and the PSW service; the lack of appropriate training (e.g., to deal with traumatised callers); insufficient resources, particularly during busy periods; and the solitary nature of night and weekend duty. All of these factors would only serve to exacerbate pre-existing difficulties related to CIS and especially the feelings of helplessness which constitute an inevitable part of the job of an EMC.

Conclusions

The findings from both stages of this research converge to highlight the significant and potentially serious effects of exposure to one or more CIs on the health and well-being of those working at the frontline of emergency ambulance care in Ireland. The results raise important questions about the appropriateness and effectiveness of support services, stress awareness training for EMTs and EMCs, and the role of and support from middle management. Our findings also suggest, in line with recommendations by Sterud and colleagues (2006), that more attention should be focused on the general

job and time pressures faced by ambulance staff as well as their emotional demands, particularly in view of research suggesting that stress-related problems of emergency workers may lead to career disruption and long-term disability (Bennett et al., 2004; Van der Ploeg et al., 2003; Marmar et al., 1999). Importantly, the ambulance service in this study has implemented some support for its personnel, which should be recognized and valued. However, the results suggest that there is considerable scope for further development and improvement of existing support services. In conclusion, this study highlights a number of important lessons for the appropriate and effective management of CIS in the ambulance service and by extension, perhaps, to other emergency services.

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