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1 **Introduction**

2 The subject of staff resilience in the workplace is an area of growing interest among healthcare
3 professions (McAllister and Mckinnon 2008, Scholes, 2008, 2013, Maunder et al 2011, Hunter and
4 Warren 2014). However there is little research on this topic within the paramedic profession.

5 The nature of modern paramedic practice is demanding and challenging, and often decision making
6 is under public gaze (Sterud et al, 2006). Paramedic crews are regularly exposed to a variety of
7 clinical incidents, which may include fatalities or unsuccessful resuscitation outcomes, and they may
8 even be victims of physical assault and verbal threats (Regehr et al 2002). All these events can have
9 an adverse impact on the physical and mental wellbeing of paramedics (Sterud et al 2006, Okeefe
10 and Mason, 2010). Additionally, in response to a number of government policies (Department of
11 Health 2001, 2004, 2005), as in other areas (Scholes 2008), there has been a profound
12 transformation in the delivery services, leading to increased staff pressures to achieve targets. For
13 example, in the United Kingdom there is a national agreed standard for Category A (life-threatening)
14 urgent calls which requires emergency response vehicles to arrive on the scene within eight minutes
15 in 75 per cent of cases (HSCIC 2014). Changes to skill mix levels, revised shift patterns and lone
16 working, together with a growing administrative workload, can cumulatively impact on staff
17 performance and ability to cope (Scholes 2008). This paper reports on the experiences of paramedics
18 from one centre and the coping strategies they adopted, often developed during formative years, to
19 adjust to the demands of their role and emotional scenes encountered in their practice.

20 **Background**

21 The concept of resilience within the health sector has drawn from child development literature and
22 tended to focus on causative mechanisms of risk and protective factors for workers (McAllister,
23 2007; Robinson and Sirard, 2005). However the notion of resilience being an individual trait has been
24 superseded by the work of Luthar et al (2000), who conceived it as a dynamic process in which
25 internal (psychological) and external (social e.g. gender, ethnicity, socioeconomic status) factors
26 interact in different ways over time. It is further suggested that an individual's strengths and
27 vulnerabilities emerge during the life course in response to changing circumstances, situations and
28 experiences. Individuals are able to draw upon a range of resources which assist in dealing with
29 negative experiences and situations and enable them to 'bounce back' from adversity (McMurray et
30 al, 2008). "Resilience is the interaction between the internal properties of the individual and the set
31 of external conditions that allow individual adaptation or resistance to different forms of adversity at
32 different points in the life course" (Ward et al, 2010:10). Resilience is therefore not viewed as an
33 inborn trait, or as a stable or static individual characteristic. Rather, resilience can be developed or

eroded unpredictably and can be viewed as a set of tools and strategies that a person builds up through facing difficulties (Hunter and Warren 2014), and which may be useful for future situations (Ward et al 2010).

The subject of resilience has attracted interest within the health care professions due to recognition that burnout and stress among health workers can result in poor retention of staff and high sickness rates, or practising with a 'deadened conscience' which leads to 'depleted caring' (Scholes, 2008, Scovholt et al, 2001). Within paramedic practice continued exposure to death and trauma can precipitate psychological problems such as post-traumatic stress symptoms and depression among health care staff (Bryant and Harvey, 1996; Marmar et al, 1998; Regehr, et al 2005, 2007). The net effect of this can impact on financial, social and family life (Regehr, 2005) including personal motivation and commitment to work (Jenner, 2007).

More recently, the organisational context to achieve nationally set performance targets has further increased the work pressure of front line healthcare workers including paramedics (Scholes, 2008, Adomat and Killingworth, 1994). For example, changes to skill mix and roles have led to the introduction of emergency care assistants, single manned rapid response vehicles (RRVs) and the use of 'standby points', all of which have eroded informal team support and opportunities for immediate feedback and debriefing from peers (DOH, 2011)

Recent research by Maunder et al (2011) suggests that the rate of clinically relevant symptoms in paramedics (high burnout, depressive symptoms and multiple physical symptoms) is approximately 60% higher in those who report previous child abuse or neglect. Childhood abuse may be more common in paramedics than in other healthcare workers, at least in women. Childhood abuse and neglect is associated with acute stress responses to critical incidents. Despite the non-generalisability of Maunders et al's (2011) study, due to its low response rate, it raises important questions regarding how resilience is influenced via biography and how work can influence vulnerability, particularly for staff with unresolved aspects of their life history. Work can become a vehicle for staff to manifest related defences arising from their biographies. In addition, the hegemonic masculine culture within paramedic practice may inhibit the expression of emotions (Boyle, 2005, Steen et al, 1997), which in the long-term can be detrimental. The predominance of a 'male coping culture' has prompted a call to challenge and change the cultural attitudes towards emotional work and expression within paramedic practice (Steen et al, 1997).

Within the field of paramedic practice, there has been little research examining what challenges individuals experience and how they learn to become resilient. This aspect merits investigation and

67 how paramedics respond to work related pressures needs to be better understood (McAllister and
68 Mckinnon 2008). The organization Mind (2014) conducted a survey which indicated that people
69 working within the emergency services are at much greater risk of developing stress or poor mental
70 health. Additionally, 43% of emergency services personnel had taken time off work to deal with
71 mental health issues. In the absence of a specific body of literature relating to resilience within
72 paramedics, the aim of this study was to explore the question of how paramedics 'survive' their
73 work within the current healthcare climate.

74 **Methodology**

75 Free Association Narrative Interviewing (FANI) has emerged as the key approach for generating data
76 within psychosocial studies (Hollway and Jefferson, 2013). FANI was adopted in this study as it
77 provided an alternative lens to explore how paramedics become resilient within their practice.
78 Specifically, FANI employs biographical narrative interviews as a first phase, which is followed by a
79 semi structured interview (Hollway and Jefferson, 2013). During biographical narrative interviews
80 participants are encouraged to 'tell their story' in the order that is important to them allowing
81 aspects of their unconscious mind to emerge in their narratives. The uniqueness here is that
82 participants' narratives unfold without interference. This approach can in turn reveal much of an
83 individual's biography and how early experiences can shape future life-choices, decisions and
84 occupation. To develop a more comprehensive understanding on the phenomenon of inquiry, a
85 second stage of face-to-face semi-structured interviews guided by data from biographical narrative
86 interviews is undertaken (Hollway and Jefferson, 2013). Hollway and Jefferson (2013) claim that the
87 method is 'psycho-dynamically informed' and psycho social researchers seek to explore the kinds of
88 defences of ordinary life, traces of which can be found in all human interactions and practices and
89 are not exclusive to therapy. The expression of repressed material, (although a bonus), was not the
90 central aim of free association narrative interviewing. The aim of these interviews is that they can
91 be containing enough to enable the participants to relax their defences and open up to their
92 previously guarded experiences.

93

94 **Sample**

95 An advert, with a brief study outline, was placed in a regional Paramedic bulletin which was
96 circulated electronically to staff with an invitation to participate. Inclusion criteria were as follows:

97

98 - Paramedics or emergency care practitioners employed at the study centre
99 - Grade of paramedic, technician or emergency care practitioner

- Willing to volunteer their time

Interested volunteers contacted the lead author via email (SC), who then replied with an information sheet and a consent form. Those who returned the completed consent form were subsequently contacted and a suitable venue and date for data collection was arranged. Ten individuals initially responded, however three became unavailable. In total, seven participants were recruited from a regional urban and rural paramedic centre in England, of these five were female. All were White British and aged 30-50 years with two having the qualification of emergency care practitioner. Initially, a sample size of 10 participants was deemed sufficient to address the research question and potentially achieve data saturation. However, despite many attempts to recruit participants, only seven individuals volunteered. In common with qualitative research inquiries, psycho-social research relies on participants engaging in long and intensive interviews to generate quality data that informs the aims of a study, moreover it became evident after the sixth interview data saturation was reached.

Data collection

For the biographical narrative interviews, participants were invited to "tell the story of their life". This was supported by the use of open questions, enabling them to order the flow of their story with interruptions kept to a minimum. SC conducted the biographical interviews which were audio-recorded and lasted between 60-90 minutes. Once transcribed, they were analysed for emerging issues that would facilitate investigating how participants learned to be resilient and also inform the interview guide for the semi-structured interviews. For example, many participants described childhood difficulties associated with bullying, family breakdown and relationship problems, loss and bereavement. Participants also described coping methods in their early life which they transferred into adulthood and their professional role. For example one paramedic described how she used to 'shut herself in her room' to escape the family conflict. It emerged that one of her coping mechanisms for the job was a preference for lone RRV working, because she enjoyed being autonomous.

The interview guides for the semi structured interview included open ended questions based on themes identified in the biographical interview and focused on unveiling how they adjusted, coped and exhibited resilient behaviour in their current role. As such each semi-structured interview guide was unique to the individual. These semi structured interviews were audio-taped and conducted by SC, each lasting between 45-60 minutes. After both sets of interviews, reflective notes were made

134 of any thoughts and feelings via a diary, which was included in data analysis. The venue of
135 biographical and semi-structured interviews were arranged at the preference of participants, either
136 their home (n=1) or at an academic institution (n=6). All interviews were transcribed verbatim.
137
138 **Data analysis**
139 Data was analysed using FANI procedures which focuses on the dynamics between researcher and
140 participant interaction. Specifically, self-reflection is used when listening to each tape-recording and
141 noting the participant's tone of voice and feelings which arose, alongside notes from the post
142 interview diary. The transcripts were read on several occasions to establish a *gestalt* on the
143 wholeness of data, which entailed an inductive process of seeking patterns through going back and
144 forth until new understandings emerged based on participant narratives (Bryman 2012; Cresswell
145 2003). Words and passages of text which captured ideas, emotions and life experiences relating to
146 the study aims and embedded within biographies and semi-structured interviews were subsequently
147 affixed with codes. Codes were then clustered around broad concepts and gradually refined and
148 reduced (Bryman 2012). From this process themes and sub-themes began to naturally emerge which
149 seemed to represent the participants' voice and experiences of learning to be resilient. Any
150 discrepancies were examined and discussed until consensus was reached. Trustworthiness and data
151 credibility were established by several means including participants feeding into the study's aims,
152 keeping contemporaneous notes, and sending interview transcripts and a summary of findings to
153 each participant for verification (Koch 2006).
154
155 **Ethics**
156 Ethical approval was received from a (NHS) research ethics committee and a university in the SW of
157 England. Confidentiality and anonymity was secured through the use of pseudonyms for participants
158 and all data was kept in a password protected personal computer with access limited to SC.
159 Participants were made aware that they could withdraw at any time and that the anonymised data
160 would be disseminated in various ways. Due to the potential distress that participation could
161 inadvertently provoke, information on how to access counselling services was made available to all
162 participants.
163
164 **Findings**
165 At the time of data collection, the study centre was undergoing significant changes and many
166 services were being reorganised, causing some unrest. This contextual background helps to locate
167 participant responses to a particular historical period. The analysis of data generated four broad

168 themes and a number of sub-themes which represented the experience of study participants
169 becoming resilient (see Table 1).

170 Insert table 1 here

171

172 **Motivation to become a paramedic**

173 - **Caring and excitement**

174 Participants described many reasons for becoming paramedics. For some female participants the
175 attraction was often, but not exclusively, linked to the value of caring, as Bryony stated:

176 *Just helping and wanting to look after people.*

177 In contrast, for others the motivation was that being a paramedic related to the nature of
178 emergency work and this allowed them to:

179 *Thrive off excitement, the excitement, the unpredictability* (Fred).

180 - **Early life encounters**

181 For the majority, becoming a paramedic was an attempt to understand and counterbalance some
182 personal childhood issues. Most described difficulties or emotional wounds in their earlier lives,
183 which they had resolved or were working through, and paramedic practice offered them an
184 opportunity for reparation and to give something back to society:

185 *We all went out on a works do ….. There were so many of us that were in this group out who*
186 *had had awful, or what could be deemed as awful, upbringings* (Ann).

187 *Which really if I look back on my past, I've been suffering constantly and there was nothing*
188 *noble about it. Perhaps I was trying to justify it and make it noble in a noble job* (Carol).

189 These early-life encounters had equipped many of the respondents with skills, emotional reserve
190 and strength which they found useful in the workplace. For instance, becoming part of the
191 profession, which had been traditionally dominated by men, was not easy for female paramedics as
192 it required them to adopt masculine qualities and to become '*geezer birds'* , including being robust,
193 loud, and engaging in male-focused banter:

194 *Yeah but we do have to be quite macho…..as much as we can look very girly and we can turn*
195 *on the girly charm and everything else we are actually quite boisterous and quite macho, you*
196 *can stick most of us in a room with a few pints with the lads and we can be one of the lads*
197 (Ann).

198

199 **Workload pressures**

200

- **Impact of health-service reforms**

One of the most concerning aspects for paramedics was about targets adversely impacting on patients. For instance, rapid response vehicles were staffed by single paramedics, making their role more difficult. The limited availability of two-staffed ambulances often led to delays in reaching casualties within the recommended time-frame, leaving single operating paramedics feeling dissatisfied with service provision. Ann described how, having completed her assessment of an individual with a suspected aneurysm and calling for an ambulance for urgent admission, she remained, unassisted, with the patient for 90 minutes:

> *An hour and a half and he just kept saying .....”Am I going to die?” he was completely grey, had no radial pulse, couldn’t get a line in cos he was completely shut down.*

Health reforms also included the introduction of systems for auditing and monitoring paramedic workload, so they were continuously required to account for the time taken to transfer patients to hospital, to handover and to report back for the next job. This level of managerial gaze was viewed as overwhelming and affecting the delivery of personalised caring:

> *We’re not given time to care a lot of the time now. They’ve really cut back on our time at hospital. They’ve really cut back on our time if you’re on scene. Once you get to a job, after 20 minutes they chase you on the radio* (Eve).

Responding to emergencies and time pressures meant fewer opportunities to determine what a patient’s outcome had been and to learn from the incident or case:

> ‘*You could say to the nurse that’s looking after them, ‘what’s happened to Mrs So and So?’ ‘Oh it’s a PE* [Pulmonary embolus] …. *this is what happened and this is why we think it.’ And you learn loads that way. But there’s no time for that now’* (Eve)

Additionally, participants felt that their practice was becoming increasingly complex and demanding, yet there were many elements of work which were satisfying and rewarding. Target driven policies, changes to skill mix, the increased pressures of workload, the introduction of performance management and resource constraints were however having a detrimental impact on their caring role. The combination of these factors was increasingly affecting participants’ health and ability to cope with tiredness and exhaustion being common experiences:

> *I wasn’t sleeping properly at all because I was so worried about work and I was really tearful. It was just atrocious* (Eve).

> *Now I don’t know why that is? Maybe it’s the nights. Maybe it’s the adrenaline. Maybe it’s the stress. I don’t know. But it’s just not a healthy job (*Fred*).*

- **Health and social care systems**

236 Other aspects adding to paramedics' workload was dealing with non-medical emergency calls. This
237 included patients with mental health or alcohol related problems and individuals with 'social' rather
238 than medical problems. Such patients provoked a range of emotions, which were directed towards
239 failures in the health and social care systems and to some individuals because as Ann noted 'they're
240 using resources they do not need to use'.

241 *I still have to go on blue lights to a fall ….. someone on the floor who is not usually hurt….*
242 *there's a great gap in the system where nobody picks up* [these] *people. So they send an*
243 *ambulance….. I get really angry thinking 'why are you wasting all our time?'* (Carol).
244

245 *I've lost a lot of my compassion …..whether this is compassion fatigue or what have you …….*
246 *I wouldn't say I'm angry with them, it's more the people that get drunk and lie in the street*
247 *and just won't get up and I think 'oh for goodness sake'* (Ann).

248

249 • **Humanising moments and connections**

250 At a more personal level, paramedics equally encountered instances where patient experiences
251 provoked childhood and family memories which would be either comforting or distressing.
252 Depending on their nature, these could affect their mood. For example, participants' narrated
253 episodes where they connected and empathised with individuals because of a patient's character, as
254 Bryony recalled:

255 *As I say I'm fine, if I don't think about it! But I still get moments in my car …..you know it*
256 *makes you get images and things in your head…..she was in her 60s the same age as my*
257 *mother….. Even the little things that maybe get to you, maybe someone was wearing the*
258 *same coat as your mum and everybody else has those experiences.*

259 For Greg, and other paramedics, dealing with children was poignant because he could relate with
260 the parents through his role as a father:

261 *Major ones that I feel impacted upon me…. I've done probably six or seven ….. cot deaths of*
262 *young children …... The first one was obviously very difficult because I just had ….. my*
263 *youngest …... it was a question of me looking back and just seeing my own child there*

264

265 **Coping and resilience**

266 Paramedics cited a range of coping strategies used in responding to routine and more challenging
267 aspects of their workload. To manage their emotions paramedics drew on informal and formal
268 support mechanisms, often learned from previous personal and professional experiences.

269 • **Management support**

270 Participants described that where organisational support was available and used this was invaluable
271 in processing work-related emotions. The reality for most, however, was mixed reactions when

272 discussing problems with their managers. Participants with positive experiences described their
273 superiors as supportive and responsive to staff needs:

274 *So she's very patient-led. She is really supportive and she totally understands people trying to*
275 *get the work-life balance (*Bryony).

276 Others found line managers would just turn up to major incidents and say*: 'All right then'* and would
277 leave. Indeed, when senior support was unavailable to resolve a professional or personal matter,
278 paramedics acknowledged that this was frustrating.

279 **• Informal peer support and humour**

280 To deal with everyday pressures, study participants relied heavily on peer-networks to discuss their
281 worries, but intentionally kept some concerns to themselves, often to protect their families or
282 placement students. Some participants recognised their approaches were not sustainable:

283 *We talk about it at work. They come to me with it now to talk to me about it, especially*
284 *some of the emotive stuff that we see because there's no openness about it. People are*
285 *ashamed to talk about this stuff* (Carol).

286 *It's tucked away from the family but it's also tucked away so I can function at work. It has to*
287 *be…. especially because I'm on the mentor vehicle…. I wonder if in years to come, it will just*
288 *all come out* (Dee).

289 Additionally, having someone to share their experiential learning and to receive constructive
290 guidance on their performance was important in maintaining emotional wellbeing and building
291 resilience in practice:

292 *No matter how proficient or competent you are at the job, you've always got something at*
293 *the back of your mind - could I have done that better? Could I have done this? If you have a*
294 *crew mate to talk to about it it's great, but to walk away and be on your own, I think I would*
295 *have gone mad actually or madder* (Bryony).

296 Humour, too, was used to diffuse tense work-related moments and as distraction to harrowing
297 scenes they had attended. Not surprisingly, they preferred not being alone in their car waiting for
298 the next call, but to be distracted and to off-load events they had witnessed with colleagues who
299 understood their work and would listen:

300 *Gone back chatted to the crew, had a little bit of banter and a little bit of er it's not a laugh*
301 *at someone else's expense…….actually, I just want to sit with the colleagues I like, the funny*
302 *ones that would just make me laugh for half an hour and then I'll be all right again'* (Ann).

303 *I know it's a bit of a cliché but ambulance people really do depend on their workmates …..*
304 [they] *understand the problem and also you don't want to take shit home all the time you*
305 *know ….. when there's anxiety there, you need to get rid of it somehow* (Fred).

306 **• Detaching and blocking**

307 As a counter-balance to the demanding nature of their role, participants described how at times
308 they would detach themselves from situations to manage their emotions. When under pressure,
309 they would momentarily mentally dissociate from what they were dealing with:

310 *The longer service you've been in the easier you find it to actually almost disassociate*
311 *yourself ….. I know I've been in the backs of trucks working on people before and I've almost*
312 *felt like it's not been me …… as if I'm actually just standing back somewhere watching*
313 *somebody else do what I'm doing* (Bryony).

314 Alternatively, paramedics also described compartmentalising aspects of work to remain effective in
315 their role. When confronting situations involving traumatic injuries, participants focused on
316 performing live-saving technical skills or physically removed themselves from a scene. This 'blocking
317 off' enabled them to become emotionally distanced. Remaining detached meant their feelings could
318 be protected:

319 *You don't have to get into emotional issues. …… and the thing about trauma is you don't*
320 *have to connect with people that much usually, especially big trauma* (Fred)

321 *I do find it quite easy to step out now and not let myself get too involved ….. I either block*
322 *my ears off or just focus on something else or I will remove myself from the room completely*
323 *if I can* (Bryony).

324 Much of a paramedic's workload provides opportunities for caring and patient engagement, where
325 skills of empathy and compassion could be demonstrated. Eve and Dee prided themselves on being
326 caring and saw this as an important part of their role:

327 *They go to a little old lady in pain on the floor….. It's a huge thing and yes, for us its bread*
328 *and butter work. It's a bit dull. There's no glory in that but you need to be really caring in that*
329 *situation* (Eve)

330 *I don't like to call any patient a waste of time. No one, no one wants to be addicted to drugs.*
331 *No one wants to be an alcoholic. No one has ever asked to be assaulted* (Dee).

332 **External support**

333 • **Support from family/friends**

334 For some participants in this study, family and friends were sources of support, particularly if they
335 were employed in health or emergency services. Sharing the events of the day with family and
336 friends helped participants to remain grounded. Individuals often discussed clinically based actions
337 rather than emotions, as Ann described:

338 *Yeah sometimes I do go home and say would you have done that? Did I do the right thing?*
339 *And he's quite good actually. He's very blunt. …… he's very good for talking those things*
340 *through with, but he's not very good at talking about feelings (Ann).*

341 Others were reluctant to burden their families and 'divided' home and work roles as this enabled
342 some to keep both aspects of their lives separate:

343 *I couldn't talk to my husband about it because it was bad enough it was in my head, let alone*
344 *putting it in somebody else's head (Dee).*

345

346 - **Referral to outside agencies**

347 Participants described how their coping and resilience had been strengthened by previous life events
348 and by independently seeking support via their General Practitioner or occupational health.
349 Counselling appeared to help but was very individual:

350 *Yeah, I wonder if that's previous counselling. They teach you, don't they, a lot I think when*
351 *they, if you get a good counsellor they do teach you a lot about self-awareness, about how*
352 *you're feeling and how to deal with those feelings…. I think I learned a lot from it….* (Dee).

353

354 **Discussion**

355 This study explored how paramedics develop and maintain resilience and 'survive' their work.
356 Adopting a biographical lens to data collection (FANI) enabled a distinctive in-depth insight into the
357 participants' world and use of coping behaviours and strategies in their practice. Understanding
358 how this group of professionals become, or not, resilient is very relevant at present as a recent
359 survey by the UK charity Mind (2014) reported that 87% of emergency services workers had
360 experienced stress, low mood and poor mental health at some point since taking up their post.
361 Other evidence indicates that frontline paramedics have one of the highest sickness absence rates
362 (Mildenhall 2012). So, while the attraction of a career in paramedic practice among study
363 participants seems to have been motivated by altruistic values, it would seem important to harness
364 and sustain this through clear role expectations and access to a supportive culture and structure.

365 As noted previously, paramedics are regularly exposed to complex and challenging work situations
366 that induce stress which, over time, can affect their health and wellbeing and diminish their coping
367 abilities (Sterud et al 2006; Okeefe and Mason, 2010). Changes to roles, staffing levels and the
368 constant need to meet performance targets, alongside responding to medical and non-medical
369 emergency calls, are additional pressures that impact on the ability to be resilient. For example,
370 time pressures to 'clear-away' from a hospital department within fifteen minutes of handing over
371 (Gatling and Ansell, 2008), eroded opportunities for reflecting on incidents and informal peer
372 debriefing. Additionally, as discussed by participants, this degree of managerial gaze adversely
373 influenced their ability to interact and care patients in a meaningful way, something they valued and
374 was an attraction to the role.

375 Another challenge described in this study was responding to 'humanising moments,' those situations
376 when participants were reminded of their own family members and children. Identification with
377 victims of injury (particularly children) can be a strong predictor of traumatic stress reactions
378 amongst health care staff (Dyregrov, 2002; Dyregrov and Mitchell, 1992; Jonssen et al 2003).
379 However, based on qualitative data analysis of 10 emergency medical service (EMS) staff, Bremer et
380 al (2012) argue that identification with families can act as a symbolic 'inner signpost' enabling health
381 professionals to empathise and build a close rapport with patients and families. Over empathy with a

patient and family could however influence reasoning and the ability to make good decisions; conversely a more detached approach may lead to less empathy but more rational judgements (Bremer et al 2012). Arguably, it is important to have a balanced approach to ensure clear decision making in emotionally challenging situations. The extent to which episodes of identification with patients' affects performance, and how this is monitored in practice, is an area for continued research and development.

Participants encountered many situations requiring managerial feedback and guidance, but this was not always forthcoming. This finding resonates with Halpern et al (2009) who also noted that this leaves the workforce demoralised. Moreover, like earlier data, at times paramedics found managers interrogational and critical when they most needed support (Regehr and Millar 2007). Mildenhall (2012) recently suggested that, due to the ambulatory nature of the work and the need for paramedics to be off-site and on standby, there may be limited face to face interaction with managers and a reduced quality of staff/managers relationships. This increased isolation is more pertinent to single-crews. The rotating 24 hours shift pattern fails to link with managerial office hours, reinforcing managers' detachment from staff (Carriere and Bourque, 2008). Of concern here is that little progress seems to have been made in reducing the workload and stress of staff in the front line.

To deal with their workload and build personal resilience, paramedics appear to employ a combination of strategies which help them to survive complex and taxing work related demands. For instance, staff resilience can be augmented by having periods off-road, debriefing sessions and performance appraisals (Jonsson and Segesten, 2004; Regehr, 2005; Regehr and Millar, 2007; Essex and Benz-Scott, 2008; Halpern et al, 2009). It would appear that informal peer debriefing was often employed as a tool to explore issues, but this generally centred on clinical decision making rather than emotions, emphasising that front-line paramedics do need an avenue for expressing the impact of their work on their wellbeing.

Use of humour was commonly employed to subdue highly charged emotions, (Bonnano, et al, 2003; Scott, 2007). Humour can help reduce distress from difficult situations, both by 'quieting' or undoing negative emotion and by maintaining supportive interactions with co-workers (Fredrickson and Levenson, 1998; Bonnano and Keltner 1997). Mildenhall (2012) reports that humour may be used by staff to detach themselves from a situation, and thereby sustain resilience. Additionally, humour enables camaraderie, group cohesion and social support, which participants valued as a release valve. Most of the joking complies with professional etiquette, taking place 'backstage' (out of the public's earshot) or in the crew room. Boundaries, such as never sharing jokes with family and friends and never joking with reference to children or seriously ill people, are implicitly set (Jonsonn and Segesten, 2004).

One previously unreported finding identified in this study is that in certain situations e.g. traumatic events and loss of life, paramedics employed detachment techniques to protect them (Holmes, 2005, Brown 2006). Bremer et al (2012) noted the dilemmas of EMS balancing conflicting characteristics of interdependence and distancing to distressed persons. Bremer et al (2012) suggests that this requires experience and training and when not achieved, this can result in health professionals inadequately meeting the needs of distressed patients and families. In this study detachment techniques were employed through adopting a professional and technical approach to

424 work and decision making. Trauma based work can require more technical skills, but a limited
425 connection to the patient which can make detachment easier. Routine work may demand more
426 empathetic caring skills and can be more problematic. Paramedics' preference for trauma work
427 could be because it requires less 'emotional labour' (Hochschild 1983). In this study trauma work
428 appeared more prized, public, valued and 'masculine', in contrast to routine caring work, which can
429 be undervalued, invisible and 'feminine'. However, detachment may encourage paramedics to see
430 patients as 'outsiders', alongside a belief that they are immune from ever becoming a patient
431 themselves. This can lead to hostile or even cynical attitudes to distress, which can encourage
432 detachment and a 'dehumanising' of others as a way a coping (Haque and Waytz, 2012). Although
433 some detachment is necessary and desirable in professionals involved in distressing scenes, research
434 into optimal stress management suggests that denial of negative feelings is a short term measure for
435 extreme situations (Adshead 2010). Other work indicates that strategies such as suppression of
436 emotions alongside avoidance of thinking about stressful incidents are a significant predictor of
437 burnout and compassion fatigue (Alexander and Klein, 2001, Prati et al, 2009). Attending counselling
438 and the use of anti-depressant medication were helpful for those who accessed this support through
439 GPs and occupational health. It is worth noting that most of the participants who accessed these
440 resources were female, and, as observed in the data, there was a sense of shame around openly
441 talking about emotional feelings within a masculinised paramedic culture.

442 Study participants saw family and friends as important in aiding their coping abilities and becoming
443 resilient, observations which have been previously reported by staff working in either health or
444 emergency services (Jonsson and Segesten, 2004; Regehr, 2005; Regehr and Millar, 2007). However,
445 participants rarely disclosed traumatic and emotive aspects associated with work, congruent with
446 earlier research paramedics practised 'compartmentalising' work issues to shield loved ones
447 (Shakesphere-Finch et al 2002). The implications from this are that paramedics would potentially
448 benefit through the principles advocated either by TRiM (Trauma Risk Management) which have
449 been adopted in the military forces and police or LINC (Listening, Informal, Non-Judgmental and
450 Confidential which is a peer counselling service adopted by London Ambulance (Little 2011).

451 **Limitations and Strengths**

452 Limitations of this study relate to the sample size, gender composition and the non-representation
453 of ethnic minority groups. It should also be acknowledged that participants who came forward were
454 self-selecting, and may have been drawn to the interview process as a means of exploring their
455 emotional life. The sample may therefore be biased towards paramedics that were more open and
456 aware of the emotional impact of their work.

457 In terms of methodological limitations, one obvious concern is about the generalisibility of the data.
458 In addition, it is time consuming and resource intensive, and there is also contention over whether
459 the approach blurs boundaries counselling and research (Hollway and Jefferson 2013).

460 However the key strength of this study was the use of free association narrative interviewing
461 technique. This enabled a deeper analysis of the affective and often unconscious aspects of
462 paramedics' lives. The unveiling of participants' biographies enabled a fuller picture to emerge of
463 how paramedics 'survived' their work. The Psycho-social framework enabled an exploration of the
464 complex inter-relationship between socio-structural and psychological factors (Clarke 2008).

465 **Conclusion**

466 This study used psychosocial methodology to explore how seven paramedics develop resilience to
467 address the varied and challenging elements of their work, particularly at a time of change driven by
468 health service reforms and mandates demanding greater efficiency and cost-savings. The emerging
469 themes characterise the range of stressors which include occupational, organisational and relational
470 factors, which add to a continuous yet invisible toll on the health and wellbeing of paramedic's.
471 However, paramedics employ an armoury of approaches which enable them to adjust, cope and
472 respond effectively within the work context. Humour, socialising, and emotional self-preservation
473 were pivotal to maintaining stability and surviving. More formal mechanisms e.g. opportunities to
474 debrief were equally important but were less available. With recent recognition that front-line
475 paramedics experience high levels of stress related absenteeism, applying interventions and
476 reviewing support mechanisms would seem to be a pressing imperative.

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668 **Table 1** Core themes and sub – themes arising from data analysis

669

Core Theme	Sub – themes
Motivation to become a paramedic	Caring and excitement Early life encounters
Workload pressures	Impact of health service reforms Health and social care systems Humanising moments and connections
Coping and resilience	Management support Informal peer support and humour Detaching and blocking
External support	Support from family and friends Referral to outside agencies

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