INTRODUCTION

Ambulance services play an important role in the English National Health Service (NHS); however, they are under researched in management inquiry. A particular issue has arisen concerning the changing role of ambulance personnel and the extent to which organisational culture(s) promote or impede transformation (Wankhade and Mackway-Jones 2015). The controversial nature of performance measures within the service is a significant feature in this.

The effectiveness of a wide variety of organisations has been linked to the culture of the organisation. There is some intuitive appeal in the proposition that organisational culture may be a relevant factor in healthcare performance, but the possible relationship between culture and performance is not conclusively established, since both 'culture' and 'performance' as variables are conceptually and practically distinct (Kotter and Heskett 2011). For instance, Scott et al. (2003) argued against simple assumptions, such as 'strong cultures lead to good performance'. Their study suggests a more contingent relationship, in that particular aspects of performance valued within different cultures may be enhanced within organisations that exhibit such cultural traits; but only those aspects.

Nevertheless, changing organisational culture is now a familiar prescription for health sector reform in the UK. The Francis Report (2013) and other recent reports (Care Quality Commission CQC 2015; Kirkup 2015) emphasise the need for organisations to create the right culture to deliver high-quality care. Konteh et al. (2010) identified an "increasing interest" in "managing organizational cultures as a lever for improving quality of care" (p.111). However, this assumes that the NHS and its constituent organisations possess a discernible culture with some bearing on performance and quality (Department of Health DH 2001; Mannion et al. 2005; Wankhede 2012).

This article explores whether and in what way organisational cultures and sub-cultures impede, rather than promote, organisational change (Harris and Ogbonna 1998; Morgan and Ogbonna 2008). This issue is approached first through a selected literature review on organisational culture, sub-cultures and in particular the concept of cultural perpetuation. Ogbonna and Harris (2014) argued that there had been limited research into the perpetuation of organisational cultural traits, especially in the context of managerial efforts to promote change. Their framework then informs our analysis of the management and perpetuation of organisational culture in one large NHS ambulance trust by providing key themes for the analysis of the empirical data derived from an ethnographic study. However, this article goes beyond Ogbonna and Harris by identifying additional themes on the nature of culture change and perpetuation, particularly the impact of performance measures, and how this affects the prospects for organisational change.

In the next section, we review the literature on organisational cultures and sub-cultures and also introduce the role of performance measures in the culture of ambulance services. We then present our conceptual framework for analysis of cultural perpetuation. The following section describes the methodology used in the study before the empirical results are presented and analysed. Implications of the findings are discussed next followed by concluding remarks.

LITERATURE REVIEW

Organisational cultures and sub-cultures

The concept of organisational culture has become more prominent in studies of organisational change recently, since structural changes have come to be seen as inadequate on their own as a means for reform (Jorritsma and Wilderom 2012; Konteh et al. 2010). However, this interest in organisational culture is problematic because there are varied perspectives on organisational cultures and how they impact on organisational behaviour (Hatch 1993; Smirchich 1983). The competing perspectives fall largely into two categories. Some writers see culture as a thing the organisation *has*, i.e. a critical variable that can be controlled like any other (Deal and Kennedy 1982; Peters and Waterman 1982). Others see culture as something the organization *is*, i.e. as a 'root metaphor' (Meek 1988; Morgan 1986; Smirchich 1983).

Meek (1988) notes that some theorists presume a tangible collective culture which can be created and manipulated to enhance social cohesion and integration, thus enhancing organisational effectiveness. She suggests that this blurs conflicts of individual or group interests and the ways in which power, authority and control are structured in organisations. Writers who see culture as 'owned by management' assume culture is homogenous, created at the highest level of organisations and dispersed top down as norms are internalised by organisational actors. However, most anthropologists see culture as arising from collective social interactions. Meek holds that culture is the product of shared symbols and meanings emerging from such interactions and that the interpretation of organisational culture is “deeply embedded in the contextual richness of the total social life of the organizational members” (ibid, p. 463). She proposes that culture can only be described or interpreted and that agency is crucial; people produce, reproduce and transform culture. It is the task of the researcher to observe individual behaviour and make use of culture as a tool for interpreting that behaviour. Thus for Meek, culture may be seen interpretively as patterns of symbolic discourse or as myths, folklore, sagas and rituals, rather than as an object subject to management control.

For Knights and Wilmott (1987) such approaches disregard the political and material contexts. Much research fails to expose the relationships of power and domination underlying management practices and ignores the process by which culture is constructed and deconstructed. They argue that the functionalist and interpretive paradigms both

neglect the wider social context, ignoring, for example, class relationships. The wider context can support a 'dialectic of control' where there is passive resistance to the *real* as opposed to *apparent* imposition of *implied* changes (e.g. a reluctance to actually implement new management techniques). Similarly, Willmott (1993) identifies the interest in 'corporate culture' in the 1980s, which he calls 'corporate culturalism', as a 'sinister' attempt to gain greater commitment and flexibility from employees by managing not just what they do but also how they think and feel. However, he also argues that the alternative approach of regarding culture as a 'root metaphor', focussing on organisational symbolism and diverse cultural artefacts, may become an end in itself, rather than questioning the ultimate goals of corporations or championing the notion of consensus developed through open democratic debate.

Despite these disputes, most definitions recognise the socially constructed nature of a phenomenon that is expressed in terms of patterns of behaviour. Schein (1985) identifies a pluralistic dimension to culture, operating at three distinct levels. The first comprises '*artefacts*', including rewards, rituals and ceremonies. These are concerned with the observational patterns of behaviour (e.g. green uniform for ambulance crews). At the next level are the espoused '*beliefs and values*' which may be used to justify particular behavioural patterns (e.g. the valuing of speedy ambulance response). At the third level are the '*assumptions*', which are the real and largely unconscious beliefs and expectations held and shared by individuals (e.g. uniformed emergency service versus emergency health service). Successfully changing cultures, therefore, requires that change impacts on all these levels, which may prove difficult. Hatch (2000) and Pettigrew (1990) highlight difficulties in studying culture at the deepest levels outlined by Schein, but others argue that culture can be uncovered at all levels (Kilmann et al. 1985; Christensen and Gordon 1999).

Organisational Culture and Public Services

There may be even greater issues around culture within the public sector because it centres on the delivery of professionally based services, notably in local government and health services. Traditionally, there have been major and often dominant professions such as doctors, the police and social workers. This has led, within the NHS in particular, to the development of new professional groups who have sought professional recognition to defend their roles within service areas dominated by more, well-established, groups. Consequently, the continuing expansion of new specialisms, seeking formal recognition of their professional status, has further increased the challenge presented by competing sub-cultures within the public sector as a whole.

The necessity of understanding the place of organisational sub-cultures in driving cultural change follows from this analysis. For instance, Williams van Rooij (2011)

concluded that successful innovation in higher education requires the consensus of two sub-cultures, namely technologist and the academic sub-cultures. Fitzgerald and Teal (2004) found that cultural differences between groups of doctors, nurses and others are not limited to being between the occupational groups but include differentiation within the medical profession, based upon specialization, generation, educational background, employment status and engagement with the organisation.

Similarly, the significance of sub-cultures in the Ambulance Service is highlighted by Wankhade (2012), who applied Schein's (1996) typography in an ethnographic study of an ambulance trust to identify three distinct occupational sub-cultures.

1. The 'Operator' culture of the front-line crews (paramedics and technicians) who respond to all emergency 999 calls.
2. The 'Engineering' culture of the Call takers and Call dispatchers who receive all 999 calls and dispatch vehicles to an emergency;
3. The 'Executive' culture of the Chief Executive and the senior executive team.

A variety of assumptions and values were found in the different occupational groups: there is no 'single' ambulance culture, but rather 'multiple' cultures. Respondents spoke as members of their occupational 'tribes', each with its own assumptions, values and beliefs, reinforced by their specific attitudes towards performance (Wankhade 2012).

Performance Measures and Culture

Heath and Radcliffe (2007) examined the performance measurement regime then applied to the English Ambulance Service. It concentrated on response times, which are clearly important. However, focussing solely on the time taken for vehicles to arrive at the scene of an incident disregards what happens there and so services were not being judged on the full package of care they provided. The regime fell into many of the pitfalls identified in the academic literature concerning the perverse incentives and unintended consequences often associated with performance measurement and reporting (Heath and Radcliffe 2010; Wankhade 2011). Indeed the service became notable as an example of how targets may promote 'gaming' (Heath et al. 2017; Heath and Wankhade 2014, Heath and Radcliffe 2010).

This was particularly significant because of the changing role of ambulance paramedics. Previously this was seen only as stabilising patients in extreme situations and transporting them rapidly to A&E units; but it has been evolving to use a greater range of skills in a wider variety of situations (Heath et al. 2017). Increasing levels of education and training are intended to provide better triage and treatment at the scene by emergency ambulance staff, although it seems the most qualified paramedics may not be always used to maximum advantage (National Audit Office NAO 2011). Indeed, McCann et al. (2013)

held that the professionalization strategy promoted at senior level had so far had limited traction due to power issues and other institutional priorities and pressures. They concluded that "institutional work in such a setting is necessarily less about trying to change organisations and institutions, and more about maintenance" (p.772).

Over time the performance measures became very controversial and the extant performance indicators seemed liable to inhibit the acceptance of the changing role (Radcliffe and Heath 2009; Wankhade and Brinkman 2011). The challenge was to devise an approach which reflected the increasingly multi-faceted nature of ambulance work and countered gaming. In December 2010, the Coalition government announced the launch of a set of clinical quality indicators for ambulance services (NHS Information Centre 2013). As the Public Accounts Committee (PAC) stated, the use of "a suite of clinical quality indicators … will lead to a reduction in double responses being sent and give ambulance services more flexibility to find the most appropriate response for these calls, not the quickest one" (PAC 2011-12 para 12). Timeliness was still seen as an important aspect of performance, but indicators of outcome or processes relevant to outcome were also included in the 'dashboard'. The approach responded to the debates concerning the previous regime but, whilst generally welcome, there were concerns that some indicators, most notably response times, would be stressed at the expense of others (Heath and Wankhade, 2014; McCann et al. 2013). A recent report by the NAO (2017) suggests that may indeed have been the case.

The report identifies three key findings that support the central theme of the present paper. These are:

> "10 Ambulance trusts have made progress in delivering new models of care but barriers are hindering wider adoption.
> 11 Ambulance trusts are struggling to meet response time targets although clinical outcomes for some patients are improving.
> 12 Important aspects other than response times require attention when managing ambulance service performance." (NAO 2017 p. 8)

Thus the variety of cultures that exist within the ambulance service (Wankhade 2012) present a challenge to those attempting to reform the service, as indeed do the potentially conflicting demands placed on the service by modified performance measures and a challenging environment.

The NAO report also found that, even though the new performance measures have been introduced, "commissioners, regulators and providers still place too much focus on meeting response times" (p. 8). This has led to perverse outcomes where resources are dispatched before assessment takes place to clarify whether a fully equipped ambulance is needed. It is important, therefore, to explore how dominant cultures at various levels

within the service may act against the effective introduction of new modes of working and how response times still dominate the thinking of ambulance service personnel.

Cultural Change and Perpetuation

There are different perspectives on cultural change, including Martin's (1985) view of 'cultural purists' and 'cultural pragmatists'. Similarly, Ogbonna and Harris (2002) identify 'optimists', 'pessimists' and 'realists'; as (i) those who believe culture is significantly susceptible to conscious management action; (ii) those who reject that view completely; and (iii) those who argue that only some aspects of culture may be changed and only under certain organisational conditions.

Ogbonna and Harris (2014) call for an understanding of the dynamics of organisational culture that encompasses the idea of cultural perpetuation. Perpetuation is defined by them as the "continuation of core cultural values, beliefs, and assumptions such that they become enduring in such a way that new generation of organisational members are conditioned to adopt them in responding to various organisational contingencies" (ibid, p. 668). In their study of an English Premier League Football club, they found evidence of five intra-organisational and extra-organisational factors that have implications for both culture management and cultural perpetuation. These are:

1. **Historical Legacy**: which includes tales of founding fathers, great victories, etc. (in this case, the history of paramedics as uniformed emergency service employees rather than as health care practitioners);

2. **Organisational Symbolism**: the role of myths, heroes and associated artefacts (e.g. uniforms and response time targets);

3. **Subcultural Dynamics**: the existence and interaction of sub-cultures (e.g. those of different ambulance service 'tribes' such as executives, middle managers, paramedics and control room staff);

4. **Employment Practices**: HRM interventions that can contribute to cultural change or perpetuation (such as education and training initiatives in the ambulance service); and

5. **Extra-organisational Influences**: the effects of constituent parts of organisational contexts on culture management, change and perpetuation in organisations (for example, of central government on ambulance services).

Ogbonna and Harris also emphasise the role of internal actors, not as passive recipients of institutional pressures, but as active participants whose interactions with their immediate environments contribute to the creation and preservation of values.

Earlier authors recognised these issues and this influenced the original research. The capacity of culture to be self-perpetuating was proposed by Sathe (1983, 1985). Historical legacy is commonly discussed in the literature. Stories and artefacts associated with founders are transformed into strong symbols (Hatch 1993) and could result in strategic 'heritance' or 'hangover' for subsequent generations (Ogbonna and Harris 2001). Similarly, symbols have been seen as central to understanding culture (Hatch 2000; Schein 1985). The literature also explores organisational sub-cultures (Martin and Siehl 1983; Morgan and Ogbonna 2008; van Maanen and Barley 1985), and the role of HRM interventions, such as selective recruitment or internal promotions, that can contribute to cultural change or perpetuation (Ogbonna and Harris 2014; Ogbonna and Whipp 1999).

Previous studies of unsuccessful attempts at cultural change in the ambulance services concentrate on employee resistance and/or managerial ineffectiveness and design deficiencies (Wankhade 2012; Wankhade and Brinkman 2014). The framework provided by Ogbonna and Harris (2014) suggests that failure to change culture may result from peculiarities in the culture itself as well as in the way the change programme was implemented. In particular, organisations (such as ambulance services) with a strong history of previous success and a contingent combination of internal and external factors that promote and perpetuate existing values seem likely to develop cultures which are less susceptible to management control. Similarly, Anand et al. (2005) argue that socialisation processes influence individuals into accepting on-going practices within the organisation and their rationalisations. In so far as this is true, elements of the culture may well impede Government policy initiatives; such as promoting a wider role for paramedics, integrating ambulance services into the wider NHS and enhancing clinical and leadership practices.

Our approach is to understand the values and assumptions of the social actors although some part of our evidence is derived from the symbolic expressions, employment practices and their attitudes towards organisational performance. By focussing on the ambulance services we echo the argument initially proposed by Gordon (1991) that organisational or corporate culture gets strongly influenced by the characteristics of the industry in which the company operates.

METHODS

Data was collected by the first author during 2007-09 as part of a larger study at a trust, which we call 'Delta' to ensure confidentiality. Factors perpetuating existing cultural values and preventing cultural change are analysed in the research. Due to the exploratory nature of the study, the primary aim was to access the different experiences of a range of staff within the organisation in understanding their social settings (Tangherlini 2000; Van Maanen 2011; Watson 2011). Rich case studies have a considerable potential to play a mainstream role in organisation and management studies (Yin 2009).

More than seventy qualitative, semi-structured interviews were conducted in two phases. Interviews lasted between 30 to 90 minutes and were digitally recorded to be transcribed later. In order to understand the social processes, the main inclusion criteria of the selected sample were their professional roles and suitability to the aims of this study. A 'purposive' sampling strategy (Denzin and Lincoln 2011; Miles and Huberman 1994) was considered to be the most effective method to recruit the participants in this study, to facilitate understanding of the social dynamics of a range of actors within Delta trust and to explore their perceptions and understanding of performance management in re-enforcing culture perpetuation in the context of organisational change underlying the case. The key actors identified included senior board executives, managers, and frontline staff- paramedics, the 999 call handlers and the dispatchers working in the control room (table 1). This helped to identify and analyse the interdependence between different occupational groupings (Wankhade 2012) allowing a better understanding of the dynamics of the culture in the organisation. To further improve the validity of the findings, ambulance policy experts working outside the Delta trust were also interviewed.

Table 1: Semi-structured interviews

Senior board executives (including non-executives)	x 23
Managers (including corporate & operational)	x 32
Paramedics	x 3
Control room staff	x 10
Ambulance policy experts	x 3

There were relatively few interviews with paramedics due to frequent cancellations owing to their busy work patterns and were conducted with those who were available and willing to participate in the study. This was compensated for by the time spent on non-participant observation of paramedics on the road and at the ambulance stations. An informed consent was taken from the personnel observed and the study aims and purpose of data collection were made clear. The focus of the observation was to watch the participants in their social settings to understand and appreciate their viewpoint while gaining insights about the organisation. Indeed, about 100 hours of non-participant observation informed this study (table 2). Use of observation as an integral part of ethnographic fieldwork is supported in the literature (Adler and Adler 1994; Angrosino

and Rosenberg 2013; Gold 1997). The observation was carried out at the corporate level, with middle managers and frontline staff; allowing an analysis of the interdependence between these various organisational dimensions. The first author attended open trust board meetings, internal executive meetings and middle management team meetings. Operations in the control rooms were observed and time was also spent in the ambulance stations, travelling with ambulance crews and in the canteen where managers, junior executives, and frontline staff took breaks. Observation was complemented by informal conversations in the 'corridors' with staff. Empirical data discussed in the paper uses quotes from the analysis of the interviews. Observation data is appropriately signposted.

Table 2: Details of observation and time spent

Executive and trust board meetings	x 10 (40 hrs)
Managerial meetings	x 4 (11hrs)
Control room visits	x 8 (18 hrs)
Ambulance ride-ons & station visits	x 6 (19 hrs)
Canteen & small talk	(15 hrs)

Such an approach is in conformity with the use of multiple data collection strategies to build the in-depth case and improve the quality of the case study research (Eisenhardt and Graebner 2007). The observation data were recorded manually in books by writing down within 2-3 days of the observation. Subsequently they were typed as full notes and this textual data was interpreted using an informal coding framework to reflect passages that clearly explained the core research themes to add our interpretations to the phenomena observed. The process included familiarisation with the interview transcripts and developing coding labels which enabled themes to be developed from the interview accounts and experiences of the research participants and also from existing literature to address the main research question. Discussion between the authors facilitated critical exploration of responses, discussion of deviant cases and agreement on recurring themes within the data (Gale et al. 2013). This is supported by Lawrence et al. (2011) who argue for a closer relationship between the institutions and social actors who populate them. Observational data was used successfully in another recent study on ambulance professionalization (McCann et al. 2013).

Interview data were transcribed manually and following the approach of Strauss and Corbin (1998), an open coding approach was used to group initial identification of themes into categories. The interview data was further cross-checked with field notes to derive a greater understanding of the issues. Axial coding technique was followed by further scrutiny and merger/reduction into fewer categories by identifying relationships among the open codes. Responses to the key themes were analysed repeatedly and through content analysis until theoretical saturation was reached (Charmaz 2003; Glazer and Strauss 1967; Lincoln and Guba 1985). The Appendix summarises additional evidence on the key themes and relative strength of evidence. Through this method, the

process of culture change was explored and factors responsible for perpetuating cultural values and beliefs identified. Ethical approval for the larger study was obtained from the local NHS research ethics committee.

There are some limitations to the study. The evidence comes from a single NHS ambulance trust. Inevitably, a relatively small number of paramedics could participate. Data was collected during 2007-2009 and further empirical research would be valuable to test the continuing relevance of the findings. However, the evidence gathered in the study corresponds to the issues raised in recent studies examining cultural characteristics and implications for ambulance services (Fisher et al. 2015; NAO 2017; Wankhade et al. 2015).

RESULTS

Historical Legacy

When the Health Service was created in 1948, the Ambulance Service became part of local government not the NHS. It followed the established emergency services in adopting artefacts like uniforms and rank structures (Pollock 2013). Since becoming part of the wider NHS in 1974, the Ambulance Service has been evolving from a simple transport service into a pre-hospital health care service and is the first point of access for a wide variety of health problems (NAO 2010). However:

> *The ambulance service is perceived as the transport arm of the NHS, simply there to get patients from their homes or the scene of an accident to the nearest accident and emergency department.* (Senior board executive I)

It is estimated however that less than ten per cent of emergency 999 callers have a life threatening condition (Evans et al. 2014) and alternate care options are provided to most ambulance service users (Radcliffe and Heath 2009; Wankhade 2011). This has given rise to calls for organisational change, particularly in the role, education and training of paramedics so that they may carry out a wider range of activities, such as referrals, giving advice and treatment at the scene. Calls for professionalization of the work force (First et al. 2012) have resulted in paramedic training moving into the universities with a range of advanced specialist paramedic roles being developed. Staff with specialist roles (such as critical care paramedics or emergency care practitioners) are now equipped with enhanced knowledge and skills needed to make complex decisions about patient care. However, tension seems to have arisen around these developments. For example:

> *Currently we still have a large number of staff who are highly competent in psycho motor skills that they've been taught…I need to change it into a culture where they can think, where they can assess, where they can decide not just against algorithms but actually against the scope of practice and so*

that's a significant migration in individuals and in systems. (Senior clinician I)

I think that there's a need to change the nature of the workforce...we need to take a non-professional blue-collar workforce and migrate it into being a professional workforce. (*Clinician II*)

These quotations suggest there are some continuing challenges around reluctance to accept the changing role of ambulance staff wholeheartedly.

Thus historical factors help promote the perpetuation of cultural beliefs and preferences as highlighted by Ogbonna and Harris (2014). During informal conversations with staff, the dilemma of progressing from a historical trauma-based organisation to a modern clinically trained pre-hospital mobile healthcare service was often mentioned as a factor which thwarted modernisation efforts. Vestiges of the old command and control culture, accompanied by a blame culture, hierarchical and top-down management styles, resistance to change and risk-averse behaviour are some of the historical factors reported by Wankhade and Brinkman (2014). Indeed risk aversion is such that conveyance of patients to emergency departments may be still the "default safety net" because "you don't lose your job from taking a patient to hospital" (O'Hara et al. 2015 p. 49).

Organisational Symbolism

While senior executives extolled the virtues of developing new values and beliefs around professionalization of the service, symbolic expressions, which still supported the existing culture, were also expressed:

A lot of our staff don't think going to patients with minor things and leaving them at home is a worthwhile thing to have done. What our staff, in the way that they were recruited, if you like, the adrenalin junkies, they get there, they save someone's life, they drive somewhere else, deliver the patient to a team that's all… it's like the telly isn't it?.. They didn't join up, as they will tell you, to be district nurses. (*Senior board executive II*)

You know there is an obsession with the 8 minutes and a realisation – if you took it away I guess many things, in some areas, could get worse. (*Ambulance policy expert I)*

Senior executives sought the development of a 'new culture' focussing on recommendations set out by national ambulance policy review, *Taking Healthcare to the*

Patient (DH 2005). The review required a quantum culture shift for the ambulance service from a heroic but straightforward transport organisation to a clinically driven emergency service. This involved new management structures, treating a greater number of patients in the community and performing an enhanced clinical role.

The review built upon the previous efforts to modernise and professionalise ambulance service education (through paramedic degrees) and regulation (Health Professional Council); thus presenting a 'pivotal moment' to the ambulance trusts in becoming a clinically professional service within the NHS. However, cultural artefacts, such as blue flashing lights and response targets, persist as organisational symbols, reflecting the historical legacy, and non-achievement of targets is still considered taboo by senior executives (McCann et al. 2015; NHS Confederation 2014):

> *I think over the years it does seem to be very target driven and it doesn't matter you know what the treatment's like as long as you get there in time and I think that is the culture that a lot of people expect to feel. That's what most people believe even though they don't agree with it.* (*Senior manager I)*

> *You get fed up in chasing figures, numbers…There is no consideration of individuals. You then become creative in interpreting and massaging targets and figures. (Senior board executive III)*

The symbolic dimensions of these sub-cultures may also have played a part in the mutual mistrust identified at Delta:

> *If I go and see a manager and communicate my indifference or otherwise then I can see one but I just don't want to because I know it won't make any difference and that's what the staff I think are reflecting on. (Paramedic I)*

> *Actually there's a culture in certain parts of the organisation and probably this part, in the middle management, where managers believe that they know all the answers …they'll have to have the last say in everything. (Senior board executive IV)*

As the above quotation suggests, at times this was linked explicitly to another important issue, that of sub-cultural dynamics.

Sub-cultural Dynamics

The importance of subcultural dynamics in cultural perpetuation is linked to subcultural centrality and subcultural domination. Wankhade (2012) documented the relative influence of three main sub-groups (executives, paramedics and control room staff). Each

of these groups was found to have distinct assumptions and beliefs about organisational performance and different attitudes towards cultural change. Here evidence is presented especially around the aspect of 'relationships' between different staff groups. For example, sub-cultural dynamics were seen to impede the full adoption of changing role of the paramedic

> *The biggest problem that's facing us is actually the fundamental culture that underpins everything in the organisation at both manager and staff level which is one of the blue collars to professionalism. A lot of the staff on the road, their thinking processes are still very much blue collar trade orientated in the sense that I turn up to work, I do my job and I go home and there's no reflective practice. (Senior board executive V)*

> *The danger is frontline staff are still in the traditional adversarial role and we need to move the organisation forward… So there's a lot of work to be done. (Senior Sector Manager II)*

In addition, sub-cultures had an impact on inter-personal relationships and, therefore, behaviour.

> *We have oodles of other challenges and cultures around the way people act with each other and that's irrespective of sex and colour and all the rest of it. That's just simply how people talk to each other at the moment is a real issue. (Paramedic II)*

The rivalry and competition between the different sub cultural groups identified in our study is revealing and is helpful in identifying and understanding the nature and role of sub cultural groups in uniformed emergency response services.

These points are reinforced by Vignette 1 based on meetings observed by the first author.

Vignette 1: Observation of meetings

The trust executive meetings take place weekly on a Monday morning, at the trust headquarters buildings in elegant suite rooms. The walls are tastefully painted with prints, paintings and curtains and the floor has a fine carpet. The rooms are big with high ceilings, well furnished and decorated artfully. Delta is an amalgamation of four erstwhile ambulance trusts within the same region. The reorganised structure contains three administrative regions, each of which has separate meetings with their own management teams, usually every fortnight on different days of the week. The researcher attended four such meetings. All three meetings in Area I took place in the area director's office. The contrast with the executive meeting room could not be

more telling. The room had a desk for the occupant and a big table in front so it could double as a meeting room. The walls were decorated plainly and the floor similarly had a simple carpet. The meeting in Area II was shifted at the last minute to the trust headquarter building, but in a very small and cramped room with insufficient chairs and space. Significantly, one senior area manager commented on the "opulence" of the building compared to the poor state of their own facilities On occasions the conversation drifts to social matters and holiday plans are discussed. The atmosphere is relaxed with a distinctive local flavour and often jokes are made at the expense of senior executives. (Field notes, first author)

Employment Practices

Some aspects of employment practices appeared significant in promoting cultural endurance and undermining cultural change efforts. We have already referred to the somewhat contested change in the roles of paramedics and control room staff:

> *I think the underpinning thing for me… is actually delivering the new agendas around education. If I think that a competent clinician is my short-term aim in order to deliver high quality care, I need a significant investment, both in future clinicians and present clinicians to take them and their competencies to where they need to be.* (*Clinician II*)

Additionally, the insular internal recruitment process and the limited role of Delta's managers in operational and strategic aspects stood out. Several factors appear to have contributed to this. Traditionally, most senior personnel joined the service as front-line paramedics and worked their way through to managerial/executive positions. Many managers stated that it was not uncommon to find that senior executives (including chief executives) on the Trust boards had come from the 'ranks':

> *Traditionally ambulance services had promoted and recruited from within their own ranks and that this was a typical uniform service approach in which if one worked for it long enough, one would get promoted because it's his/her turn. This has resulted in a lack of ownership, understanding and accountability at all levels in the organisation and where the senior executive team were viewed as 'Generals' and lots of time is spent in looking 'upwards' for directions. (Station Manager I)*

Furthermore, the eight-minute response time target is too short to allow any managerial intervention in 'real time' and, therefore, influence resides with the control room staff. Real time performance data is available to executives and managers but the allocation of

resources is a preserve of the control room staff. This allows little scope for managers to deal with performance issues as they arise.

Lack of opportunities for training and clinical education, often side-lined due to operational exigencies, was another issue highlighted by some of the managers during the interviews as affecting both themselves and the staff:

> *I'm not sure you can change the nature of the workforce by giving them 5 days a year to train.* (*Clinician III*)

This has a significant bearing on executive efforts to bring cultural change. The management focus on performance targets further affected the personal development of this group. One senior executive expressed his 'frustration' about the lack of managerial skills in communicating the message" to the front-line staff. Some middle managers, on the other hand, complained about a 'lack of genuineness' on the part of senior management in involving them in actual decision-making processes and developing organisational strategies.

Operational managers were isolated from front-line staff due to shift patterns and from each other due to the distances involved, which resulted in their engagement in the organisation being limited to an implementation role. (This is a general issue in organisations: see Currie and Procter 2005). Thus they seemed to have limited influence on either the contents of the strategy or the operational activities supposed to deliver it. Perhaps unsurprisingly, these middle managers could seem 'reluctant managers' (Scase and Goffee 1989). However, there were positive developments witnessed at Delta. For example, the development of the managerial strategic function was recognised by senior management and training programmes were enhanced.

Extra-organisational Dimension

Ogbonna and Harris (2014) demonstrate the importance of an extra-organisational dimension in understanding cultural perpetuation by particularly highlighting the role of football fans in their study. In our study, we saw the influence of other NHS organisations and the central government having a significant effect:

> *Managers are under more pressure and I think managers do have a perceived tension. They understand what it is that's happening in the clinical domain and have great tension within themselves about saying you should not do this, you should do this in order to deliver targets versus you should do this, you shouldn't do this for individual patients. (Clinical governance manager I)*

We are an organisation which is under political control whatever people say and the bottom line is that unless we deliver our headline targets we will be deemed to be a failed organisation and however much we squeal that we are doing it for the patients we will be removed. (Clinician II)

However, and significantly, the interviews suggested that other stakeholders, such as service users and other emergency services (police and fire), were regarded as having less influence on the organisational culture. This can be related to the expanding, but still limited, role and influence of the ambulance services within the wider NHS:

Ten years ago we were very much part of the emergency services. Over the last 10 years we have become more and more meshed into the NHS way of working and we are in kind of no man's land at the moment because the emergency services (fire and police) no longer see us as a full partner with them. (Senior board executive VI)

During the non-participant observations and ambulance ride-ons, this aspect was amplified. Discussions in the canteen pointed out the dilemma of being perceived as an emergency service akin to police and fire (wearing uniforms and attending emergencies) as against the expectation of been seen as an emergency pre-hospital care provider within the NHS family. Central government is clearly a significant external influence on ambulance services. However, frustration was expressed at Delta concerning the many and sometimes contradictory Government initiatives:

Because they are all complete opposite in terms of incentives and the direction of travel that you would take to achieve any one of those… Sometimes you can sit back and you end up laughing because otherwise you would just cry. (Senior board executive I)

The facts are not joined up. Because if you think about it and think about well hang on, well how does Payment by Results, Foundation Trusts, Practise-Based Commissioning, Taking Health Care to the Patient – how does that all actually tie in. (Senior board executive III)

Considerable pressure from successive governments to promote the wider role of the ambulance professional, however, has inevitably had some effect in addressing the countervailing factors identified above (Radcliffe and Heath 2009). Furthermore, there are increasing numbers of instances suggesting that senior managers from other NHS services are coming into the organisation and likewise there is a growing movement of paramedics and nurses moving into different sectors of the NHS. Increasingly, medical personnel are being employed by individual ambulance trusts including as medical director. But some reservations remain. For example:

I have a horrible feeling that ...in 5 or 10 years' time they (the ambulance trust) will be carrying on doing more of the same... I'm not confident that I could say in 10 years' time we will have a fantastic ambulance service that's really adding value to the patient. (Ambulance policy expert II)

Other Factors Affecting Cultural Perpetuation at Delta

The framework of Ogbonna and Harris proved valuable for revisiting the data, as we hope we have demonstrated. However, certain aspects pertaining to cultural perpetuation at Delta did not fit into the framework so smoothly. Two factors stood out. First, resource limitations seemed to inhibit both organisational and cultural change.

Lots of things have changed. It has certainly got busier. Definitely you can say that. (Senior paramedic II)

One major challenge in the work is getting through 12 hours with the same level of concentration, delivery of aptitude and energy for that amount of time. (Senior paramedic III)

This was amplified by the introduction of 'Call to Connect' which standardised and tightened the way the response time is now defined; i.e. the clock now starts at the moment the 999 call 'hit the switch board' (Wankhade 2011):

Call to connect is going to place huge pressures within ambulance services to get to places quicker...It is going to take up all the money, an estimated £21m in our service, when that £21m could be invested in education at the start of bringing healthcare to the patients. (Senior board executive II)

The second factor which stood out in the fieldwork was the primacy of the eight minute response time target. There was a general appreciation of the limitations of the target.

The paradox of what good performance would mean is that (if) we get a vehicle quickly to an incident... from the perspectives of the organisation, it means performance standards are met... What we actually deliver from that point onwards is important in terms of patient care, appropriate intervention and investigation. It would then give a perfect picture of the two, namely the speed of response and quality of delivery (but) we only measure the speed and I think it is ***totally*** *inappropriate. (Senior Paramedic III, emphasis added)*

It's a measure, but it's not necessarily always the best measure. You don't hear many ambulance staff saying I've done well because I got to that job in

6 minutes, you never hear that. But you often hear ambulance staff saying I did a good job then because the patient lived. (Area/Corporate Manager II)

This was heightened by a sense that many 'red' (priority) calls did not merit that status, a tendency believed to be increased by 'Call to Connect' which left control room staff with less opportunity to investigate the real nature of the call. Many respondents talked about their frustration in rushing to such jobs, which then turned out to be less serious incidents:

You need to be sure that the eight minute calls are actually the red calls. They often turn out not to be and you feel awful and fearful that something could have happened to you or to a member of the public on the roads. (Observation data)

This is supported by the following vignette based on an observation by the first author.

Vignette 2: Paramedic Observation

After a busy shift, we return to the ambulance station. We saw a range of cases dealt by the crews. Routine transfer- an elderly patient is shifted from the care home to the hospital ward for investigation. We also rushed to an urgent 999 call which is about a stroke case which needed hospitalization. After completing the shift, we have a quick 'brew' at the station and discuss whether crews feel the 'adrenaline rush' in driving fast with lights/sirens. The EMT tells me that many paramedics do not drive faster or slower based on the type of calls. For them an emergency is an emergency whether it is a red amber or green or with blue lights. One paramedic argues that he would not like to put himself at risk since in lots of jobs driving fast does not really make a difference. (Field notes, first author)

However, differences in attitudes towards the targets emerged in the research. Paramedics tended to be straightforwardly sceptical:

My colleagues don't view performance because one of the major features in the ambulance service is one job at a time...No they don't really give a monkeys and do you know why they don't? It's because the minute they come here for a 12-hour shift... It's job after job after job. (Paramedic II)

It's now very difficult when you are talking to staff about performance improvement, that they just see it as a code for hitting the target as opposed to genuinely trying to make change improvements for the patients themselves. (Senior board executive VII)

Managers were more pragmatic in their views:

> *(The) eight minute target is like, you know, the driver, for everything and you keep tweaking this and tweaking that to hit that target, hit that target...all you are concentrating on is getting that because you know that as a Trust if you don't hit that 75, everybody starts kicking you. (Senior board executive IX)*

> *I think that what we have with the response time target is an attempt to consider...the most critical factors within a single performance indicator.... to achieve a good response time what it requires for the organisation is to be reasonably healthy in most of the key areas. (Senior Area Executive I)*

Nevertheless, there was recognition of potentially damaging effects on their work force:

> *I don't necessarily believe that the national targets are necessarily the most accurate or realistic targets and... Therefore, I think there is an issue of morale...if your performance targets are too high and unrealistic, then ...people get very demoralised. (Senior manager III)*

The varied comments above reflect the differing attitudes of different sub-cultural groups at Delta. They provide some evidence supporting the view that the performance regime had an inhibiting effect on attempts to transform the ambulance service culturally from being a uniformed service focussed on response times and stabilisation to a more professionalised one.

DISCUSSION

In our literature survey, we identified three main perspectives on organisational culture. Some see culture as akin to a tangible object, which is easily managed, and others see it as an intangible factor which can only be interpreted through symbols, myths, etc. The third group embrace the critique of the "corporate culturalists" made by the "organisational symbolists", but then criticise the second group for concentrating too much on symbolism at the expense of power relationships within the organisation and extra-organisational factors.

Our results support the view that organisational culture is not easy to manipulate, manage or change, and that symbols, artefacts and sagas, etc., were significant at Delta. At the same time the complex dynamics of power were notable, with both paramedics and control room staff having significant autonomy and sub-cultures supporting cultural perpetuation, thereby obstructing (to some extent) government policy on the changing role of the ambulance professional. The ambiguous class position of paramedics, being

"blue-collar" and "professional" (McCann et al. 2013), seems relevant here, as it provides a 'dialectic of control', in Knights and Wilmott's terms. The literature about culture and professionalism in the public services (including 'new professions') also resonates.

Thus, the study provides support for the concept of ambulance tribes (Wankhade 2012), including that of another significant tribe: middle managers. A revealing finding is that middle managers were often unable or declined to take up more strategic roles. There were several occasions when managers were drafted into operational duties due to high numbers of emergency calls, some of which can be attributed to the lack of clinical development within the service. Indeed, managers' adopting a 'hands-on' role when needed is part of the historical legacy of the Ambulance service, reinforcing the shared symbols and values of the workforce and their managers (see Meek 1988 above).

However, on the issue of cultural change, senior executives expected managers to imbibe and adopt an ambitious role transformation to become more strategic; but middle managers were subjected to unclear expectations, becoming caught between traditional and newer roles. Indeed, their response sometimes seemed typical of change blocking behaviour. 'Socialisation' emerged as an important facet regarding any transition towards a more strategic role (Currie and Procter 2005). Most of the managers were not newcomers but were being asked to adjust to a new role within a more professional service, for which their previous experience and socialisation had not prepared them. Their response was often to orient themselves to the traditional role into which they were socialised. Managers experienced a role transition along with the associated problems of role ambiguity and role conflicts.

Therefore, we contend that the ambulance service, with its historical legacy and combination of intra- and extra-organisational factors that perpetuate existing values, has developed enduring cultures that are resistant to executive control, supporting the work of Ogbonna and Harris (2014). The prevalence of the factors identified by them suggests that changing organisational cultures in such settings is harder than policy documents imply or managers would wish. The point made by Anand et al. (2005) about the strength of socialization also seems to be supported. However, in Ogbonna and Harris' case, the five factors they identified uniformly support cultural perpetuation, whereas in our study two factors, employment practices and extra-organisational influences, seem more ambiguous in that education and training can support change and government policy definitely does.

Moreover, the earlier performance measures reinforced the cultural norms around response times and emphasised the rapid transportation of patients (Wankhade et al. 2015). The recognition of the need to change these measures and a questioning of the role of targets within the health service suggests that government is increasingly aware of these issues. Thus the changes to the performance measurement regime seem supportive

of the broader paramedic role (Heath and Wankhade 2014), although simply expanding the performance measures is unlikely to be enough on its own. The practice of performance measurement might continue to exhibit dysfunctional effects (see NAO 2017; Wankhade 2011) in which we see a range of behaviours, including management's 'obsession' with targets, 'confusion' as to their role as a proxy of organisational performance, a 'fear of failure' by the senior executives in not meeting targets, plus 'hostility' and 'resistance' to targets resulting in staff de-motivation. In particular, there is the issue of whether the wider range of indicators in the dashboard has countered the previous tendency to game-playing, as it seems easier to game against a single indicator. Alternatively, the continuing pre-dominance of response times in practice may be sustaining opportunistic behaviour. This is a matter which requires further, up to date research.

Reference was made earlier to cultural 'purists' and cultural 'pragmatists' and to 'optimists', 'pessimists' and 'realists'. Our findings suggest that the paramedics fell into the category of the cultural 'purists' and 'pessimists' with a strong notion of their legacy and sub-cultural identity, their less than positive attitudes to cultural change and their frustration about lack of resource and ever-increasing performance demands. The managers came across as cultural 'pragmatists' and 'realists'. They were very hands on, doing what they were told to do, but at times willing to be more strategic despite a lack of management training and education and to embark on the new direction of travel. The senior executives and experts overwhelmingly came across as 'optimists' and 'pragmatists', guiding the cultural change process from the top, very mindful of their historical legacy and the role of ambulance services within the wider NHS, but also of meeting performance targets. However, the balance of the evidence presented here seems to favour the position of the pessimists and realists on changing culture, although the evidence of the NAO (2017) is mixed as to whether gaming is being ameliorated. In any case, these differing perspectives point to the complexities of understanding the process of cultural change in the ambulance service, supporting the findings of others in different organisational settings (Sathe 1985; Ogbonna and Harris 2002).

Another important issue concerns the values, attitudes and behaviour of users of the service. These seem to have little influence on the organisational culture of ambulance services (unlike Ogbonna and Harris's football fans). This is significant, not least because of differences in perception about the appropriateness of emergency calls. The notable increase in demand for ambulance and emergency services in general, needs to be explored, as this is a major area of friction between ambulance professionals, managers and users. The potential political saliency of this issue is revealed through the high profile of ambulance services and their perceived failings, and the alleged "misuse" of 999 calls across all emergency services. This has significant policy and practice implications.

CONCLUSION

Organisational culture is a complex and amorphous concept, subject to various local contingencies, and is difficult to change. This insight, in itself, is not new as our literature survey suggests, but is still relevant in the light of repeated attempts to reform organisations through cultural change. The changing role and identity of ambulance personnel and the conflict between professional cultures and management objectives are significant issues. Indeed, aspects of culture can act to impede government policy. Moreover, the interplay between culture and performance measurement have significant implications for policy and practice. All these issues make this a fascinating topic for further study and research.

While the framework of Ogbonna and Harris (2014) helped to categorise those aspects that reinforced cultural perpetuation at Delta and reduced the effectiveness of efforts to reform the service, the present study raised additional issues. Their five factors all seem to be significant with regard to cultural change and perpetuation in our case. However, further factors were identified. These were resource constraints and particularly the role of performance measures, which emerged as a key management feature of Delta. Efforts to bring about organisational change through training and culture change were countered by the continuing emphasis on response times, which perpetuated the existing, dominant culture. Attempts to overcome the perverse incentives associated with this have come up against the other key elements of historical legacy, subcultural dynamics and employment practices.

To conclude, therefore, the role of cultural perpetuation is a key issue within the ambulance service and the NHS more generally. Our discussion has centred largely on the findings of research into the internal relationships and dynamics within Delta. Further research is also needed into the efficacy of recent developments in education at the level of Higher Education in furthering professionalization and how that plays off against socialisation into 'tribal' sub-cultures. A key question therefore is whether such developments have a significant and indeed long-term impact on the culture of the service. Likewise inquiry into whether culture(s) in ambulance services could and/or should be more receptive to the views of service users would be valuable. The effects of the current performance management regime on culture also deserve investigation, particularly in a period of austerity. A pertinent issue is whether the dashboard inhibits gaming or the persisting emphasis on response times promotes it.

Finally, ambulance services globally are confronted with similar challenges surrounding rising activity, an ageing population, societal issues and a drive for professionalization of practice and face comparable cultural obstacles in evolving into professional healthcare providers (Hou et al. 2013). Findings from this study, therefore,

have international implications and further comparative research can investigate these issues (Holmes 2010; Middleton 2015; Tanigawa, and Tanaka 2006).

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