A discourse analysis of hand hygiene policy in NHS Trusts

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Abstract

Introduction: Healthcare-associated infection is a major patient safety concern. Hand hygiene is widely thought to be the single most important measure to affect reductions but compliance is problematic. Producing policies that clearly outline the responsibilities of staff is seen as a key way to instil accountability and improve performance.

Objectives: The purpose of this study is to examine the discourse of hand hygiene policies across 359 NHS Trusts in England and consider the implications for practice.

Method: The data were examined by combining the techniques of corpus linguistics with critical discourse analysis to generate keywords and concordance lines and then to make an interpretation what this may mean for the healthcare worker.

Results: High frequency words such as ‘must’, ‘should’, ‘will’, ‘responsible’, ‘compliance’ and ‘audit’ suggest a tone that is authoritative and unyielding. This creates a fractured relationship between those who produce policies and the healthcare workers who need to comply with them.

Conclusion: In their intentions to advance patient care policy, producers take little account of the messy, contextual factors that make the recommendations challenging to implement in daily practice. Firstly, Trusts should consider the use language that acknowledges the dynamic nature of practice and, secondly, cease using audit data as an indicator of performance as the conditions under which information is collected lacks reliability.

Keywords

Hand hygiene, policy, compliance, governance, discourse analysis

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Introduction

Healthcare-associated infection (HCAI) has become a major patient safety concern that pervades all healthcare services regardless of the resources available (World Health Organization) (WHO, 2011). Approximately five million HCAs are estimated to occur in Europe annually (WHO, 2009). The NHS has developed an uncompromising vision to avoid infections and the topic has been prioritised in a number of its operating frameworks. The increased attention placed on HCAI has been entwined with a number of reforms that has enhanced the regulation of infection prevention and control in England (Cole, 2010). It is now a requirement that Trusts have written policies, procedures and guidance that promote timely and effective hand decontamination (National Patient Safety Agency, 2008). The

purpose of this study is to examine the discourse of hand hygiene policies in England and consider the implications for practice.

Method and Data

Discourse analysis is an umbrella term for a range of methodological approaches that analyse the use and functions of talk and text within social interactions. There are many competing traditions, and this study combines two, critical

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discourse analysis (CDA) and corpus linguistics. Corpus linguistics is a computer-based method that exploits technology to perform, among other things, a textual analysis of keywords, collocations and concordances, across, if necessary, vast amounts of data. CDA is a more qualitative technique that examines the interconnectedness of discourse, power, ideology and social structure. Fusing these two approaches has become a popular approach in applied linguistics as it allows the quantification of keywords and then an interpretative analysis around their significance (Baker et al., 2008). At the time of the study there were 370 Acute, Primary Care and Mental Health Trusts in England (NHS Choices, accessed October 2011). A combination of Freedom of Information requests and direct access to Trust websites was expedited over a three-month period. A total of 359 policies were actually available as some organisations were commissioning only and a small number shared the same document. All policies were secured and this amounted to a corpus of 1,001,863 words. Once these data had been transferred into a machine-readable format, corpus tools were used to generate keywords. Concordance lines were created and read to categorise and analyse the precise way that these keywords were being used. Appendix A is a list of keywords ranked by their keyness. Keyness refers to a word that occurs more often than would be expected by chance alone. Statistical significance is then calculated by the Log Likelihood. Words such as 'hand', 'hygiene', 'soap' and 'policy' have been stripped from the list because the purpose of the keyword analysis was to reveal language that identified the ideological footprint of the writer.

Results

The documents were an eclectic design with some exceeding 8,000 words and others a single page instructional statement contained within a larger body of universal precautions. The majority ranged between 2,000 and 5,000 words. In total, 284/359 (71%) documents were titled a policy the others referred to as an assortment of Procedures, Guidelines and Standards. Although these terms are often used interchangeably, practically and ideologically policies are seen to be more authoritative with their ultimate aim being to regulate and control organisational action (Naidu, 2009). Turning to the text Siso (2009) suggests that regardless of its genre, a reader's path is remarkably similar as they seek out important information at the beginning of a text. Moreover, it is here that a writer seeks to justify the importance of their work and persuade their discourse community that this is something worthy of their attention (Hyland, 2009). Typically authors would begin their policies by using intensifying strategies that highlights, among other things, the morbidity, mortality and costs of HCAI, and the efficacy of hand hygiene. '5000 deaths' was widely quoted and the term 'Single most' was

used 213 times (176 Trusts), 'the most' (42 Trusts) and 'most effective' (22 Trusts). Trusts would also take the opportunity to highlight the personal responsibility for hand hygiene. Policies also embraced the notion that infection control was everybody's business. Individual occupations, like doctors and nurses, were scarcely mentioned with policies preferring the term 'all Staff', used 1,237 times.

Example One

It is the **responsibility of individual** healthcare workers (Trust A)

It is the **personal responsibility** of each employee to comply (Trust B)

Every member of staff has **personal responsibility** to ensure they comply (Trust C)

Modality

According to Husain et al. (2009) a good recommendation should be precise and exact as executable recommendations are more likely to be understood, remembered and acted upon. Precision is often conferred through the use of modal verbs like 'must', 'should' and 'may'. These verbs are also used to suggest certainty and imply a level of obligation and for this reason are of particular interest to a discourse analysts. In this corpus, 'must' (4,904) and 'should' (5,742) were very high frequency words. According to Lomotan et al. (2010) clinicians believe that 'must' conveys a higher level of obligation than 'should'. 'Must' infers that something is absolutely necessary, 'should' falls somewhere between an obligation and giving advice. While both words were pervasive in all sections of the document a notable finding was that 'must' was more common when describing frequency and 'should' more influential for technique. In other words it would seem to be more important to Trusts that staff cleaned their hands than whether they did it any particular way. In addition 'must' was more frequent in situations that required behavioural control, like a uniform policy and 'should' where there would be a financial cost to the Trust like the availability of bedside alcohol handrub.

Example Two

Hands **must** be decontaminated immediately before each episode of patient contact (Trust C)

Hands **should** be washed by systematically rubbing all parts together (Trust D)

Example Three

Clinical staff **must** be bare below the elbow (Trust E)

Alcohol gel **should** be available for use at the point of care (Trust F)

Conversely ‘may’ is a modal verb that is thought to form the lowest level of obligation (Lomotan et al., 2010). One of the significant functions of the modal auxiliary ‘may’ is to reduce the authority of the policy maker and introduce optionality by giving the appearance that the healthcare worker (HCW) can make their own decisions as to whether or not to follow the advice. ‘May’ was used on 2,237 occasions but predominantly to make predictions on how hands could become sore because of frequent washing, contaminated during patient care or, alternatively, give the HCW permission to use a particular product. The only example of ‘may’ in relation to frequency or technique was when 11 Trusts seemed to acknowledge the exponential increase of hand hygiene opportunities in some contexts. Whether or not the same Trusts were lessening the obligation is unclear.

Example Four

It should be noted that hand hygiene **may** have to be performed between tasks on the same patient (Trusts G, H, I, J, K, L, M, N, O P, Q)

Other high frequency words were ‘accountability’, ‘responsibility’, ‘compliance’ and ‘audit’. ‘Accountability’ and ‘responsibility’ are also terms of deontic logic that are used with increasing frequency in policy discourse (Savage and Moore, 2004). ‘Accountability’ has had something of a mixed press with enthusiasts arguing it is about confidence, professionalism and transparency with critics countering that it is elusive, ambiguous and associated with a retrospective justification of actions and a way of apportioning blame (Savage and Moore, 2004). Despite this, ‘accountability’, ‘responsibility’ and their lemmas were keywords in the corpus.

Example Five

Each practitioner is personally **accountable** for their hand hygiene practice (Trust R)

Personal **responsibility** and **accountability** for compliance with infection control is embedded within job descriptions for all healthcare workers (Trust S)

Clinical governance has extended the obligation to manage one’s own performance and mandated that different professional groups should scrutinise the work of others (Allen, 2000). Here policies would typically make the point that not only were staff required to act as role models but also regulate the behaviours of their peers.

Example Six

Staff must act as **role models** and be able to demonstrate ongoing commitment to hand hygiene (Trust T)

All staff **must report** breaches or non-compliance with infection prevention and control (Trust U)

The terms ‘compliance’ and ‘adherence’ have been associated with the parlance of infection prevention and control for some time. As far back as 1998 Kretzer and Larson defined this as the extent to which a healthcare professional follows the ‘rules’ of infection control. They went on to recommend the use of adherence as they believed it be less authoritarian and more collaborative (Kretzer and Larson, 1998). Indeed within behavioural sciences compliance is generally defined as an autoplatic yielding to external demands, regulations and pressures, and it signifies a citizen’s deference, conformity allegiance or cooperation to the social order (Evangelista, 1999). In this corpus there were 1,944 uses of the word ‘compliance’ and 168 uses of ‘adherence’. As part of the increased regulation of infection prevention and control the Department of Health (2008) has become an enthusiastic advocate of audit as way to embed good practice and improve compliance. The requirement for audit was firmly entrenched throughout policies. Not only were ward staff expected to complete this, but as stated below were given affirmative notice of what an acceptable result would be.

Example Seven

Hand hygiene audits are to be undertaken on a weekly basis and collected monthly until a score of 100% has been recorded for 3 consecutive months (Trust V)

Standards of 80–95% should be reported to Matron and the audit repeated daily until 95% or higher is reached for 3 consecutive days (Trust W)

As such Trusts set out clear expectations of their staff. What was less clear is the action they would take if non-compliance became a long-term problem. The Department of Health (2008) states ‘Staff need to understand what is expected of them as individuals and for what they will be held to account – and understand that there is a clear escalation channel for non-delivery’. Despite this only 68 out of the 359 Trusts (18.9%) actually included the words ‘disciplinary’, ‘discipline’ or ‘disciplined’.

Example Eight

The Trust has a zero tolerance approach to non-compliance with correct hand hygiene and the failure of staff to follow hand hygiene policy may result in **disciplinary** action (Trust X)

Staff failing to comply with this policy will be **disciplined** (Trust Y)

Discussion

This study has demonstrated that hand hygiene policies are infused with deontic logic. ‘Must’ and ‘should’ permeate the corpus and individual ‘responsibility’ and ‘accountability’ are given great emphasis. Word preferences like ‘compliance’ over ‘adherence’ accent power, paternalism and

coercion. The formal and informal observation of performance hints at control. Overt punitive language is not strong but it does sit below the surface with a clear allusion to what staff must do. An obvious answer too much of this, is that this is not surprising as this is what policies do. As Apthorpe and Gasper (1996) point out policy language tends to be couched in the obvious and unquestionable. It persuades, states what ought to be done, what stands to reason and cannot be negotiated. This is echoed by Sutton (1999) who argues that the hallmark of good policy is its non-refutability. However, discourse analysis is predicated on the notion that the linguistic structure of a text functions as discourse, to privilege certain ideological positions while downplaying others. Discourse is not neutral device, as well as reflecting the world as it is, it constructs the world by building objects, worlds, minds and social relations. Common sense accounts, like the ones proposed in this corpus, begin to populate a health community and certain potent social realities become efficacious in future events and other positions then become stifled and marginalised. There is no attempt to deny the enormous contribution that hand hygiene has, and can make to reducing HCAI, but there are elements of these documents that require further consideration.

Poor compliance against hand hygiene policies is reported as an enduring problem and blamed on a range of situational factors like a lack of equipment, understaffing, overcrowding, high demand for the behaviour and sore hands and social cognitive determinants like motivation, knowledge, perceived benefits, risk perception and social pressure (WHO, 2009). Recording hand hygiene behaviour is a challenging, time-consuming endeavour, with a figure of 40% compliance widely quoted (Erasmus et al., 2010). Despite the obvious problems of policy meeting practice, in this study the recommended frequency rates reported by Trusts are analogous with the five moments of hand hygiene. That is, staff should decontaminate their hands before touching a patient, before clean/aseptic procedures, after body fluid exposure/risk, after touching a patient and after touching patient surroundings (Sax et al., 2009). An unwitting consequence of this exhaustive model is that it places great demands upon the HCW as the opportunities for hand hygiene escalates. For example, Chou et al. (2012) identified 150 hand hygiene episodes during the course of a morning ward round. Biddle and Shah (2012) calculated 54 opportunities per hour for a busy anaesthetist. Hand hygiene policies singularly fail to recognise this and take the same stance whether a HCW is required to cleanse their hands twice in an hour or 30 times.

Part of the problem possibly sits with who produces a hand hygiene policy. Typically this would be the infection control team under the auspices of the infection control committee. The committee is made up of a group of senior clinicians and managers and a common theme is that, to varying degrees, they are removed from the full weight of

the hand hygiene policies they espouse. Moreover, whether they have the knowledge, experience or indeed inclination to take account of the messy, conflicted details of HCWs' responsibilities is an arguable point. It is conceivable that hand hygiene policies propagate something of a nirvana concept, creating an ideal image of the world – a horizon, which organisations strive to reach (Molle, 2008). As an educational initiative, an aspiration or a focal point this is a laudable but it has the potential to be something more sinister if it is wrapped up in performance management. Direct talk of disciplinary action may have been relatively scarce in these policies, but as the Department of Health (2008) asserts that zero tolerance is a powerful way to demonstrate persistence towards non-compliance with key policies and procedures, it is likely that it will increase as policies are updated. Although they were discussing HCAI in its broadest sense, the thoughts of Edmund and Frazer (2008) could equally apply to hand hygiene. They argue that zero tolerance is toxic, rigid, dishonest and anti-intellectual. What is needed is more tolerance not less.

Recommendations and Conclusion

Without compromising the excellent work that Trusts are engaged in to promote high standards of hand hygiene two changes should be considered. Frequency is clearly a problem and the use of 'must' here is possibly intended to show firm leadership. However, it can also be excessively strong, controlling and top-down and have a negative impact on the responsiveness of HCWs (Cunningham et al., 2006). Moreover, didactic approaches can inadvertently force individuals into a dependent role and as a result ongoing compliance only comes from policing behaviours (McFarlin et al., 2008). Using 'should' rather than 'must' when describing hand hygiene frequency is not a radical departure from what already exists as a number of Trusts, albeit the minority, already do this. However, it is important to note that 'should' does not condone poor practice. It cements notions of obligation and accountability and continues to strive for a standard where no hand hygiene opportunities are missed. But it also takes a more facilitative, less punitive approach that recognises what people know, but rarely speak of; in some clinical scenarios policies become unworkable and hence ignored. Some may argue that taking the softer option of 'should' will open the floodgates to poor performance but this is fanciful. Staff understand the importance of hand hygiene but are moved to a position of enforced non-compliance because their working conditions become extreme.

Second, Trusts should review the routine audit of hand hygiene behaviour, or at least using the results as a performance measurement. The WHO (2009) and the Joint Commission (2009) both acknowledge that hand hygiene observation (audit) is a sophisticated activity that requires

training, skill and experience. It is, or should be, the preserve of the research study where it can stimulate ideas and thoughts of practice improvement in a non-punitive environment. As seen in this study, policy typically transfers the responsibilities for audit to the ward-based clinician who does not have the time or incentive to do it properly, particularly given the repercussions of non-compliance. To prove this point an inspection of Trust websites would suggest compliance levels are in excess of 90% and sometimes 100%. Given what we know about compliance rates in academic studies such figures are spurious. Muller and Detsky (2010) call the current method an 'indicator-based approach' to practise improvement as it is based upon rules and mandates. The goal here is not necessarily to enhance the quality of hand hygiene but to protect the organisation from external scrutiny. Not only does this lead to an overestimation of behaviour but also undermines a real intention to improve performance. As Dekker (2012) suggests a learning organisation must be allowed to hear bad news. Forty percent compliance is unremarkable and often reflects what people actually do. Audit is important but needs to be educational not punitive.

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Appendix A

Rank	Frequency	Keyness	Keyword	Rank	Frequency	Keyness	Keyword
18	5,742	17,954.371	Should	159	798	2,763.316	Impact
25	4,904	16,055.772	Must	165	909	2,715.174	Reduce
27	3,799	14,943.722	Training	167	568	2,713.301	Governance
28	5,824	14,914.358	All	171	664	2,696.666	Manager
32	2,828	12,834.309	Prevention	174	762	2,640.405	Workers
46	2,217	9,068.879	Ensure	182	609	2,503.127	Recommended
48	1,944	8,949.186	Compliance	186	573	2,443.953	Responsibilities
49	4,240	8,915.269	Will	191	1,056	2,365.950	Good
56	2,210	7,647.102	Risk	200	620	2,321.948	Advice
64	1,542	6,931.180	Audit	214	588	2,141.845	Adequate
70	1,779	6,683.299	Effective	236	433	1,868.118	Performing
100	991	4,572.734	Thoroughly	250	429	1,788.336	Attendance
101	978	4,511.053	Managers	254	407	1,744.899	Vigorously
106	1,221	2,987.022	Required	257	577	1,733.394	Essential
108	1,056	3,909.003	Responsible	261	790	1,709.563	Evidence
112	1,241	3,784.099	Appropriate	280	944	1,625.480	Important
122	797	3,581.403	Ensuring	559	359	1,573.752	Monitored
125	924	3,453.019	Safety	503	503	1,543.644	Correct
132	1,019	3,287.595	Responsibility	336	485	1,322.488	Easily
134	978	3,229.843	Assessment	352	352	1,276.564	Requirements
136	845	3,193.224	Monitoring	379	602	1,168.999	Single
141	733	3,058.641	Mandatory	387	691	1,132.658	Individual
149	686	2,871.046	Approved	392	235	1,122.581	Matrons
153	634	2,840.175	Visitors	433	433	1,116.980	Quality
156	591	2,808.598	Audits	378	378	1,107.499	Immediately