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Contracting with General Dental Services

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1. Aims/Objectives:

This research will identify the factors which facilitate and hinder the use of contractual processes to manage and strategically develop General Dental Services. In particular the study will focus on the relationship between commissioners and General Dental Practitioners (GDPs) and how this relationship is affected by the differing needs and professional outlooks of both parties. A comparison with General Medical Practice commissioning will be used to highlight factors which are distinct to dental practitioners.

Objectives:

1. To understand what constitutes 'success' in contractual agreements from the different perspectives of GDPs and commissioners.
2. To understand the factors which influence successful (or unsuccessful) outcomes being reached in contractual negotiations between GDPs and commissioners.
3. To make recommendations of approaches that would facilitate the reaching of mutually agreeable contractual agreements between GDPs and commissioners; and help avoid the potential difficulties embedded in this contracting process.

Research questions:

Related to Objective 1:

1. What does 'success' mean to GDPs and commissioners?

Related to Objective 2:

2. What are the features of the activity system of GDPs and commissioners, and the differences between these systems, which predispose the contracting process to success or failure?
3. Do policy negotiations at a central level influence whether successful outcomes are reached in contractual negotiations between GDPs and commissioners?
4. To what extent do GDPs and commissioners find it difficult to reconcile differences in managerial and professional perspectives?
5. To what extent does the issue of the balance of power between GDP and commissioner create difficulties in reaching contractual agreements?
6. What role does 'trust' play in the success or failure of contract negotiations, and how does this become established?
7. Are there features of the relationship between GDPs and commissioners which are unique to this contracting context, or do the same issues arise in similar scenarios e.g. in the relationship between GMPs and commissioners?

Related to Objective 3:

8. Under what circumstances are contractual agreements which are mutually acceptable to GDPs and commissioners reached?
9. How can the contracting system be best structured and supported to maximise outcomes for both parties?

2. Background:

Since the early 1990s there has been a steady reduction in the level of commitment of GDPs to NHS work (Calnan et al, 2000). For example: figures show practitioners earning 48% of their gross income from NHS work in 2004/2005, down from 54% in the previous year (Information Centre, 2006). It is this shift which has given rise to growing problems experienced by the public in getting access to an NHS dentist, particularly in some parts of the country (Healthcare Commission, 2006).

Introduction of a new dental contract in 2006

As well as the subtle shifts which have occurred, there have also been a few 'watershed' moments where significant numbers of dentists have withdrawn completely from providing an NHS service, moving their practice fully into the private sector. A key turning point was the introduction of a new dental contract in April 2006, where the fee-per-item system of remuneration, which had been in existence since the inception of the General Dental Service (GDS) in 1948, was replaced by a system of targets of Units of Dental Activity (UDAs). The fee-per-item system was centrally administrated, and so prior to 2006, GDPs were relatively autonomous in relation to claiming reimbursement. The new contract, however, meant not only a change in incentives, but also in governance (defined as the way in which organizations and people working in them relate to each other (Davies, 2004). Under the 2006 contract GDPs had to relate to (and be accountable to) commissioners in the Primary Care Trusts (PCTs) with locally agreed contracts involving negotiated numbers of UDAs.

Contracts were drawn up around an agreement to deliver a prescribed number of UDAs in a 12 month period for an agreed annual financial value. The provider had a contractual duty to provide all necessary care for an unspecified number of patients for which the provider was paid a certain number of UDAs. The targets of UDAs on which contracts were based, were calculated on historical funding levels for that area, and this has led to a number of anomalies where, for example; UDA values varied between providers in different areas of the country (and not necessarily in association with deprivation indicators).

Although there was initially general support for a reform of the General Dental Service (GDS), the implementation of the 2006 system has been widely contested (Harris et al, 2009). Around 10% of dentists refused to sign the new contract, and effectively withdrew completely from providing an NHS service. A further 2,884 contracts with PCTs were signed in dispute. Contracts which were agreed, delivered a period of temporary stability to the

system. Dentists signing the contract in 2006 were guaranteed the same yearly gross fees as they earned during a 12-month 'reference period' (2004-5) for the next three years (until 2009). PCT dental allocations were ring-fenced during his period: although ring-fencing has now been extended until 2011.

Further changes to the dental contract following further deterioration in dental access

Whilst the new dental contract implemented in 2006 was intended to address issues underlying the move of practitioners away from the NHS; access to NHS dental care appears to have deteriorated further. According to data from the NHS Information Centre for England (June 2008) 1.2 million fewer people saw an NHS dentist in the two years leading to June 2008 compared to the number seen in the two years leading up to the end of the old dental contract in March 2006.

Following heavy criticism of the 2006 reforms by the Health Select Committee in 2008 (House of Commons, 2008), an independent review of NHS dental services (Department of Health, 2009) was set up; and recommended a further change in contracting arrangements between PCTs and GDPs. The independent review proposed new contractual arrangements between GDPs and PCT commissioners based on a mixture of requirements associated with proportions of the total contract value, suggesting there should be a shift away from a contract based mainly on activity measures (UDAs). Anticipated 'blended' contract currencies were: an annual per patient payment to encourage continuing care, activity targets, as well as more overt incentives for prevention and quality. Practices with high quality scores and increased access to patients would to be allowed to expand, whilst those not meeting these criteria would not be protected by a guaranteed income. No additional legislation was required to enact these changes to the dental contract, since PCTs were already free to use 'baskets of indicators' to monitor performance in ways that are deemed appropriate. Reaction of dental professional bodies to drafts of this new contract was not promising. The view of the General Dental Practice Committee (GDPC) was that this new contract is 'unnecessarily complex, making it risky and inappropriate for dental practice'. Within the draft 'PDS-plus' agreement there were nearly 50 pages and 17 schedules specifying contractual obligations, with many 'controlling provisions', leading to (in the view of the GDPC), 'intrusive micromanagement by PCTs'.

Publication of the White paper 'Equity and Excellence: Liberating the NHS'

With a change of government, a White paper published in July 2010 heralded a dramatic reform of the administrative landscape of the NHS (Department of Health, 2010). PCTs are to be abolished and commissioning brought under the remit of GMP consortia. Commissioning for general dental services (GDS) is to be carried out by a National Commissioning Board (NCB), although whether this is supported by a regional and local structure is subject to consultation. The NCB will be established in a shadow form from April 2011 and go live as a statutory body in April 2012. What is clear is that the concept of commissioning of GDS will remain. The actors in the

commissioning role may change (although some of the same actors may remain and purely shift the organisation to which they are accountable). In removing the PCT dental commissioning structure, the White paper removes one element which has identified as contributing to the difficult implementation of the 2006 dental contract: the limited capacity and capability of dental commissioners positioned in the PCT. The Health Select Committee (House of Commons, 2008) reported evidence that 'PCT commissioners level of knowledge on dental practice appears to be limited to their own (limited) dental experience. Factual knowledge on the dental needs for the area appears to be negligible'. There was particular concern that in some PCTs only junior staff were working on dental commissioning 'Some are really quite good, but some are using the lowest level managers who really do not understand what they are doing and they are rambling around the country threatening people with legal action and the like'. By concentrating dental commissioning expertise in a NCB, perhaps with a supporting regional structure, the variation in dental commissioning expertise may in some way be addressed, although capacity issues may remain.

Another new dental contract

Whilst the White paper made limited references to dentistry, the new government were clear that a new dental contract would be implemented, and that these new arrangements would be piloted. The new contract is to be based on registration, weighted capitation and quality measures focusing on health outcomes. Even as the principles of the new contract are being outlined, concerns are being raised: linking payments to individual health outcomes rather than overall investment to health returns over the cohort may discourage dentists from taking on patients with the most severe and chronic health needs (Apolline, 2010). Others are sceptical that dentists 'can be trusted' with capitation (Apolline, 2010) – evidence from studies of the capitation trial undertaken between 1984 and 1987 shows that the proportion of untreated decayed teeth remained stubbornly low, and 'supervised neglect' was a concern (Coventry et al, 1989). After a few years payments for fillings and crowns were re-introduced. The capacity for restorative activity to decline when procedures are not remunerated was demonstrated a second time during the few years of Personal Dental Service arrangements, when remuneration was based on type of registration/capitation but without additional activity targets. A sharp decline in the number of fillings and crowns undertaken was seen.

Registration too, has previously been tried, albeit for only two years at the time of the 1990 contract. It was hoped to ensure universal access to care, but the experience showed that contracts based on registration do not ensure access, especially if patients are removed from dentists' lists after a period of time (Apolline, 2010). Registration may have ensured access for regular attenders, but not for all. Commissioners are going to have to be skilful in using new contractual arrangements to manage and strategically develop services.

With a commitment to piloting, implementation of a new dental contract is expected to follow broadly the same timescale as shifts in responsibility from

PCT commissioners to the NCB: the NCB will be established by April 2012 and PCTs will be abolished by April 2013. A type of mixed contract, with quality requirements as well as activity targets is already being tried in some areas of the country under current regulations. The Department of Health set up the Dental Access programme in March 2009 'to address the problem that whilst NHS dental access is good in some areas of the country it is worse than others' (Primary Care Contracting, 2010). Several procurements of new dental services were set up with new money, and this came with central assistance in contract monitoring. These new procurements were set up based on a contract labelled 'PDS plus' contracts. Since these contracts are time limited they are likely to stay in place until the end of the contract period - which will probably be after the new dental contract pilots have begun. As such it is likely that PCT commissioners and NCB commissioners will be responsible for different varieties of dental contracts: new contract pilots, PDS plus contracts and contracts using UDAs.

During the next couple of years PCT commissioners, and subsequently NCB commissioners, will be actively involved in commissioning (or de-commissioning) general dental services. With the end of the gross income guarantee transitional period in April 2009 there is greater scope for commissioners to review contracts (Department of Health, 2008). Each PCT has now assumed full responsibility for commissioning dental services in its area using money from a budget. The intention is that PCTs will structure services according to local need, directing dentists towards areas where access problems exist, as part of their commissioning function. A rolling programme of both contract reviews and normal performance reviews is anticipated. Furthermore, the independent review of NHS dental services recommends that the situation where contract values vary between practices irrespective of local levels of disease, should now be addressed by commissioners. The relationship between GDPs and commissioners will be important, as will be the agreed terms of any contracts. For GDPs this brings a level of uncertainty regarding their future contracting arrangements, and, if the process is poorly managed, a possibility exists that more GDPs may decide to withdraw from the NHS.

<u>Comparison with General Medical Services</u>

There are some significant similarities between the relationship of PCT commissioners to GDPs, and their relationship to general medical practitioners (GMPs). Like GDPs, GMPs work as independent contractors to the NHS who offer their services to patients in exchange for a variety of fees and allowances paid from the general tax fund (Wynes and Baines, 1998). Like GDPs, GMPs have come from a position of relative professional autonomy; to become more accountable to managers working in the PCT, through contractual arrangements, which have seen several rounds of revisions. In many cases, it will be the same individuals in the PCT who negotiate contracts with medical practitioners as well as with dental practitioners.

In the recent independent review of NHS dental services (Department of Health, 2009), it was noted that skills and knowledge used in commissioning

GMP services, did not translate to the commissioning of GDP services, although it is unclear what elements of commissioning of GDS services are unique to the dental context. Whether there are special considerations related to thespecific incentives of the contract in question, or whether business and financial concerns for the GDS are greater on account of dental charges and large practice overheads is unclear. Or perhaps the social context of dental practitioners, working in relative isolation from the rest of the NHS, with a difficult recent history of contract negotiations is relevant. Is there something more fundamental involved, such as how commissioners view dentists, and vice versa; or that the field of activity of dentists is very different from that understood by PCT commissioners in their dealings with GMPs?

In order for commissioning to be 'world class' there is a recognition that the relationship between purchasers and suppliers is key (Woodin and Wade, 2007), and that different relationships with suppliers demand different competencies and resources from the purchasing organisation. Even given a competitive market context of non-health and social care; competencies in commissioning place an emphasis of relationship management on the supply side. Where there is an option of a shift of supply towards the private sector and away from NHS provision, as is the case in the dental sector, this relationship management is all the more important.

New commissioning structures for GMPs

With the changes in the White paper Equity and Excellence (Department of Health, 2010), PCT commissioners will no longer play a role in commissioning General Medical Services. This role with be carried out by local consortia of GP practices, and all GP practices will be required to participate in these consortia. It is envisaged that there will be about 400-500 consortia covering England. Engaging financial and commissioning expertise from those previous working for PCTs will be necessary, but this will bring a significant shift of the centre of control in commissioning, back towards professional rather than managerial control. In dentistry, the commissioning process will remain driven primarily by those with a managerial background, and so differences are likely to emerge. Comparison with GMPs will include a comparison with a system where the conflicts between managerial and professional perspectives have swung back in the favour of professional control.

The demarcation between professional and managerial territory has been a difficult area for many years. Clinical autonomy, counterbalanced by professional self-regulation, is central to medical culture (Schultz and Harrison, 1986). However, increased consumerism, together with the introduction of purchasers, and the move towards evidence-based medicine has created substantial changes in both the medical and dental professions (Allsop and Mulcahy, 1996). This dilution of power has not been without a struggle (Harrison and Pollitt,1994): as structural change, such as the introduction of PCT commissioning has unlocked previously fixed territories and relationships, creating new jurisdiction (the balance of power and control defined by territory management), Thorne, 2002. With the removal in 2009, of guaranteed gross incomes for GDPs, as well as the introduction of even more

detailed contract currencies, the level of autonomy previously experienced by GDPs is reducing. How this impacts on the relationship between commissioners and GDPs and whether negative reactions from GDPs to perceived loss of control can be mitigated, needs to be explored. Managerialism is defined by Pollitt (1993) as 'a world where objectives are clear, where staff are highly motivated to achieve them, where close attention is given to monetary costs'. Healthcare organisations on the other hand are often described as professional organisations (Forsberg et al, 2001); since professional activities are understood to consist of complex problem solving based on advanced knowledge. Consequently these activities cannot be standardised, or planned and controlled by supervisors; rather there is a reliance on employees having a high degree of professional training giving them autonomy in their decision making and practice. Commissioners and GDPs/GMPs may therefore possess differing world views, with a managerial emphasis on the one hand, and a professional emphasis on the other.

Trust

Trust is defined in the Oxford dictionary as 'a firm belief in the honesty, veracity, justice and strength' of an individual or an organisation'. There is a growing line of debate regarding the erosion of trust in society (O'Neill, 2002). Whilst there is said to be a 'crisis of trust' in society, perceptions of 'untrustworthiness' are found to be based on surprisingly poor evidence of a lack of trustworthiness. There is a line of argument that trust should be placed with more care and discrimination, and there needs to be a greater reliance on the accuracy of information underpinning decisions to act on trust. The attraction of trust is that it is potentially more cost-effective than the alternative, which is a greater reliance on explicit and detailed contracting between purchasers and providers and costly monitoring of performance. Models of trust suggest that trust is composed of at least two dimensions: the intention to bargain prosocially and hold to decisions, and competence to deliver on agreements (Twyman, et al, 2008). Where breaches occur the attributions that each party makes becomes critical. A key aspect of trust in motives is how similar the agent assesses the principal's values to be their own (Twyman, et al, 2008). Exploring elements of trust and co-operation in the contracting relationship between GDPs and commissioners will be an important area of study in this project.

New Contract for GMPs

Whilst GDPs are to have a new dental contract in the next few years, GMPs, the White paper Equity and Excellence (2010) indicates that the Quality and Outcomes framework will be redrawn to focus on health outcomes in order to provide incentives for continuous improvements in quality of care. GMPs therefore will also have to adjust to new contractual arrangements. Suggested forms of the basic form of the new dental contract will be more like the GMP contract (capitation plus quality measures) than previously. There are however important differences between how GDP and GMP practices are structured which mean that what may work in one situation, may not necessarily be successful in the other. The main job of the GMP is to diagnose, advise, prescribe or refer. They don't have to do the treatment themselves. Another difference is that once on a Doctor's list patients may

stay there until they move or die. There is no question of being struck off the list after an arbitrary two years or even the 15 months as it was before 2006. Given that we have around 20,000 dentists to deal with 60 million people, lifetime registration would mean over 3,000 patients per dentist which is unworkable. Whether this type of contract can deal with ensuring quality as well as demanding that dentists see maximum numbers of patients will be a challenge.

Commissioning and provision issues raised by independent contractors working in the public sector

Both GDPs and GMPs hold in tension the responsibility of being health professionals on the one hand and business people on the other. Whilst contracts negotiated on an annual basis with a basket of indicators may be suitable from the commissioning and performance management point of view, the implications for dentists (or doctors) managing small and sometimes growing businesses might be less welcome and even constraining of service delivery. The sub-contractor status is of course not unique to doctors and dentists, with social care providers and independent sector health workers also having a history (albeit fairly short) in contracting with the NHS for the purchase of their services, although little, if any evidence is available concerning the way in which competing interests are managed in this situation.

The issue of 'gaming' within the contractual agreements between commissioners and suppliers of health services is seen as an area of particular concern within this context. GDPs have often been accused of 'gaming', for example with the UDA-base system associated with some specific 'gaming' behaviours related to UDA bands (Department of Health, 2009). Against a background of perceived 'gaming' by GDPs in response to capitation based contracts (Holloway et al, 1990) and the 2006 dental contract, draft revisions of the dental contract in response to the Independent review of NHS dentistry, include stringent contractual obligations to preclude anticipated gaming behaviour. As well as influencing the content of contract agreement, perceptions of exploiting the system for gain also give rise to difficult relationships between GDPs and commissioners and are therefore an important issue to consider.

Such behaviour is not unique to GDPs, with parallels seen in other contexts whereby once contractual requirements are agreed, this generates unforeseen, and possibly undesirable consequences once clinicians are free to use their discretion in delivering the contract. A general medical practice case study, reports enterprising behaviour on behalf of nurses in pursuit of quality and outcome framework (QOF) targets (McDonald et al, 2008), such as home visits being made to patients who were not housebound in order reach targets. On the other hand, flexible forms of organising which underpin the Government's promotion of enterprise can have desirable results, such as empowering nurses to counsel GMPs about patients inclined to 'slip through the net' (McDonald et al, 2008), and therefore abandoning the reforms based on market principles is not considered desirable.

The SDO brief PC254 identifies as a key area for research 'the use of new contractual processes to manage service delivery and to strategically develop local primary and community health services'. Whilst the exploration of these issues within the context of general dental practice is important in the context of maintaining the availability of NHS care, many of these issues have a generic relevance. Using contractual processes to manage service delivery requires an understanding of how to balance competing concerns while maintaining trust between parties whooperate from differing perspectives. Is it possible to avoid the creation of perverse incentives when a contractual framework is applied, without ever more stringent controls and regulations precluding certain activities?

The GDP as an 'entrepreneur'

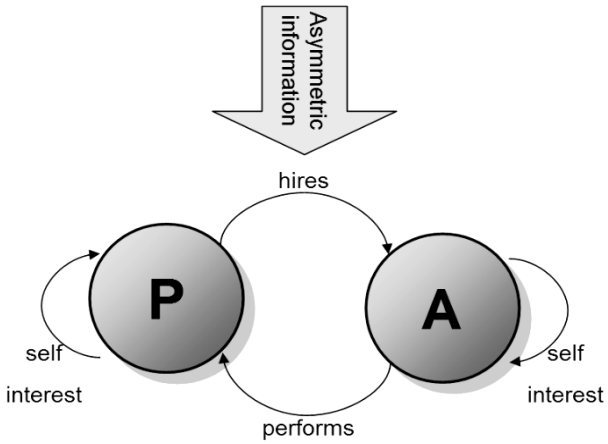
One interpretation of GDP responses to contract specification is that they are acting entrepreneurially within institutional spaces created by contractual frameworks taking advantage of unforeseen 'loopholes' with the result that perverse behaviours and incentives are generated. Whether the position of GDPs within a small business environment, makes this entrepreneurial behaviour more likely is unknown, and deserves further exploration, as does the perception that this behaviour is particular to GDPs.

This exploration would begin by first acknowledging that entrepreneurship itself is not readily reduced to selfish, materially-advancing behaviour. Rather, recent studies reveal an emphasis on an open negotiation of inner and outer conditions whereby personal character and circumstance (desire for independence and material advance, personal/firm's resource endowments, family involvement, etc.) are expressed within larger environments (other stakeholders, employment levels, availability of venture capital, contractual designs) and *vice versa* (Sarasvathy, 2008). What governs entrepreneurial performance, then, is a communal sense of autonomy wrought through an embedded expertise to judge opportunities under the impress of a shifting mélange of personal and environmental constraints. So perceptions of GDPs simply exploiting the system for gain are probably too confining to appreciate the multiple influences governing the quality and extent of existing and possible relationships with commissioners. A far more thoroughgoing appreciation of the GDP and GMP in context is required, with particular emphasis being placed on contractual institutions by which the opportunities for providing good health care and creating a sustainable business are framed.

Contract theory

Established theory on contracts invokes a relationship between principals and agents. The principal-agent model (Jensen and Meckling, 1994) describes the situation where the principal (P) delegates an action to a single agent (A) through a take-it-or-leave-it offer of a contract. The principal-agent problem arises when the principal compensates the agent for performing certain acts that are useful to the principal, and costly to the agent. The model makes three assumptions: that goal conflicts exist between principals and agents; that agents have more information than their principals; that human agents will always rationally evaluate and exploit situations in order to maximise personal

gain. In a world of information asymmetry, uncertainty and risk such as that of the contracting relationship between commissioners (the principal) and GDPs (the agent), the opportunity for exploitative rent seeking activity is high, requiring, according to the theory, carefully designed contractual terms in order to prevent inefficient and unintended outcomes. As commissioners will be free to use their discretion in designing contract terms in new blended contracts, there will inevitably be a range of types of contracts in existence during the study. According to the Principal-Agent model, GDPs will react by looking to exploit loopholes in these new arrangements. Whether this is reported in all the PCTs studied, and in every dental practice involved, will be a line of enquiry in the study, as well as the impact of this type of behaviour on the relationship between GDPs and commissioners, and how GDPs rationalise this behaviour to themselves.

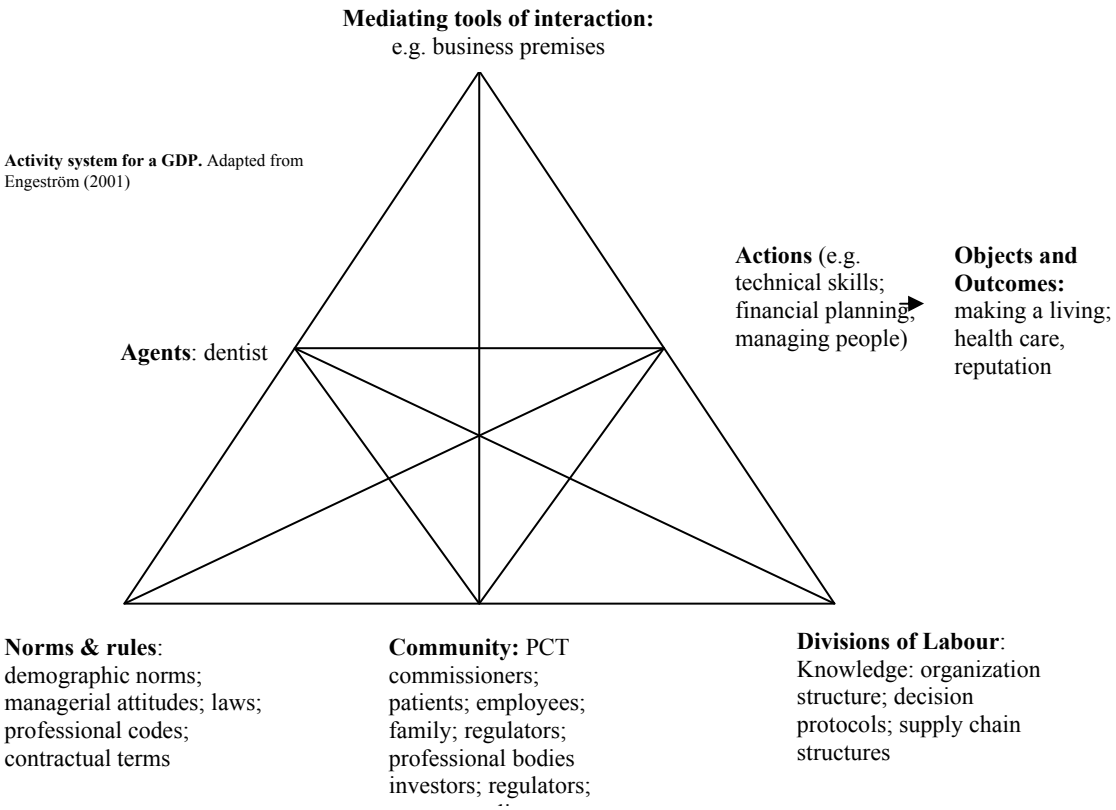


Although from a 'gaming' perspective the principal-agent model appears an appropriate basis on which to examine the contracting relationship between commissioners and GDPs (and GMPs), the cited work in entrepreneurship studies, along with previously mentioned issues of trust, managerialism and professionalism, suggests the reality between contracting parties is far more complicated than the reaching after a mutually self interested equilibrium (Goddard and Mannion, 2000).

To consider fully the research objectives and questions, a more substantive awareness of the contractual conditions by which the parties come to make sense of their expectations, responsibilities and goals is also required. This suggests in the first instance the adoption of a qualitative methodology which, rather than working toward any pre-determined hypotheses (Quinn and Rohrbaugh, 1981) provides a useful analytic framework for representing such conditions. One such framework is provided by activity theory. Activity theorists argue that there are six basic elements of which any activity consists:

1. human agents such as dentists, commissioners;
2. actions such as contracting or drilling teeth, that have outcomes (such as ordered use of resources, or patient health);

3. a wider community of stakeholders upon whom the activity and knowledge is somehow dependent (such as advisors, or friends);
4. prevailing norms and values by which the worth of actions and outcomes is evaluated (such as views of profitability, a sense of ethical responsibility, or professional codes);
5. prevailing systems by which activities are organized (such as firm structures, legal duties, contractual terms);
6. and finally material and symbolic objects used as tools (such as equipment, logos, communication devices, or buildings).



The diagram above represents what the activity system for a GDP might look like. It is a framework for representing and analysing social and economic phenomena that understands activity as a three-way interaction of agents, objects of activity and community, each of which can be mediated by one of three mediators: rules (social norms), artefacts (technology/tools, symbols, language) and division of labour (organizational structures). It is the activity system that forms the basic unit of analysis rather than any subset of individual motives, structural conditions or localized group ideology.

Because each system is seen as emerging from a set of local histories to which a multiplicity of subjects have contributed, and are contributing through ongoing activity (Engeström 2001), the object and outcome are neither static nor singular. In the case of an activity system for a GDP these objects will be multiple and equally legitimate, including building a reputation; earning a

living; providing good dental care for patients. In this sense they are both objective (they are understood and spoken of as goals) and projective (the outcomes have a social use value linked to a repertoire of skills, norms, procedures and tools), (Miettinen and Virkkunen, 2005). Activity theory will allow us to understand GDPs over time, showing how relationships between specific elements have grown, become entrenched, endured schism, and been transformed or replaced.

3. Need:

Access to NHS dentistry has now become an issue of considerable concern to service users. In the 2006 MORI poll undertaken in four Strategic Health Authority areas, access to NHS dental care has superseded access GMP services and hospital acquired infections as a top priority for the NHS. In response to the question 'Based on what you know or have heard about the NHS, can you tell me whether you think the NHS in your local community is in need of improvement?', in 2005, 47% identified 'ease of registering with an NHS dentist' as an area which needed a lot of improvement. This was a greater proportion than rated hospital waiting times (30%) or improvements in the quality of medical care (5%) as needing a lot of improvement (Healthcare Commission, 2006).

In a context where access to NHS dentistry is becoming increasingly difficult, getting the contracting arrangements 'right' becomes imperative. Dentists have been shifting away from the public sector for some two decades but evidence suggests that the last major review of the GDS contract in 2006 accelerated this process. Following heavy criticism an independent enquiry proposed further reform, and the PDS-plus contract was piloted. But this too attracted critical attention, in this case for its complexity and micromanagement. The coalition government is now in the process of introducing radical changes to NHS commissioning and another new dental contract is being piloted.

While the success of these latest reforms will be central to restoring wider access to NHS dental care, there remains considerable uncertainty as to how the reforms will be interpreted and implemented by commissioners. This research will identify the critical features of a successful relationship between the commissioner and suppliers of dental services. Providing a framework for negotiation between commissioners and GDPs will help to avoid conflict and establish mutual respect and co-operation when contract terms are negotiated and reviewed. This study will address important issues of commissioning practice which underpin any success of this latest phase of dental practice reforms. An understanding of the perspective of each party, and the ability to communicate this in both words and actions will be an important aspect of establishing good relationships between commissioners and providers, for both theory and empirical evidence suggests that co-operation and trust can play a central role in the efficient organisation of contractual arrangements in circumstances similar to those under which the NHS operates (Goddard and Mannion, 1998).

4. Methods:

a. Setting

The study is to be conducted in PCTs and general dental and medical practices in the North of England.

Sampling of PCTs for Phase 2:
Since PCTs vary in the way commissioning and contracting are undertaken, the study will involve data collection in 6 PCTs. We have taken the view that within the North of England there is such a range of PCTs that, with careful sampling, we can draw a national picture, whilst avoiding the substantial additional costs which would be involved in undertaking case study research in disparate geographic locations.

The sampling of PCTs will be undertaken using a hierarchical selection procedure, using four criteria: 1) Information from a Dentistry magazine poll detailing the relationship between GDPs and their PCTs in a league table, with PCTs scoring highly (n=5) where GDPs perceive the PCT to be 'fantastic-no complaints' and those with low scores (1=0) where GDPs have rated 'the worse, no redeeming features at all'. Data for the survey was gathered by responses from GDPs to this free magazine which is sent to 24,000 dentists listed in the GDC dental register (and online). Response rates are not being released by the publishers and so the information is only used a one source of information. 2) The next stage of selection will involve ensuring that a spread of rural and urban areas are represented, using the data and definitions developed by the rural evidence research centre, Birkbeck College, University of London. This classification defines areas in terms of the number of the population in rural areas, and provides data which can be mapped onto PCT boundaries. The PCT boundaries on which the data is presented is however mapped according to pre-2006 PCT structures. In 2006 there were several mergers of PCTs, and so translation of the data is approximate. 3) As a further stage, data on dental health (which closely mirrors social class) will be used as well as data giving a picture of changes in patient access to care in these areas. The dental health data will be from epidemiological surveys undertaken regularly on 5-year-olds (giving a mean dmft figure), published by the British Association for the Study of Community Dentistry. The mean dmft figure for 5-year-olds in 2007/2008 was 1.11 and we intend to include PCTs with a range of values (higher, lower and similar to) around that figure. 4) The NHS information centre publishes patient data on 'Adult patients seen as a % of the adult population in the previous 24 months ending on specified dates'. The figure for the % change from quarter ending 31 March 2006 to 30 June 2008 will give a picture of changes which have occurred in patient access following the introduction of the new dental contract. In England there was a 3.3% decline in patient access in that period, and we intend to include PCTs with figures which are higher, lower and similar to that figure within the sample.

Selection of case study sites

In each of the 6 PCTs, we will identify at least two dental and one medical practice. We will identify dental practices iteratively according to a distinct type of contract model in place. As well as 6 medical practices (one in each PCT) we will identify practices to represent the following types of arrangements:
New contract pilot (3 practices),
PDS plus practices (2 practices)
Completely Private practice (1 practice)
NHS Child only practices (2 practices)
Corporate Body practices (3 practice – one PDS plus)

nGDS practices (4 practices)
nPDS practices (2 practices)

PCTs will be asked to provide lists of dental practices. Practices invited to participate by letter being identified to represent a particular type of arrangement. If practices decline an invitation to participate, a substitute of a similar type of practice will be made. Medical practices will be chosen as those nearby the identified dental practices.

b. Design

A multi-method, multi-stage design will be used, integrating both qualitative and quantitative components to provide both breadth and depth. The study will extend over a critical period in the relationship between GDPs and commissioners, including leading up to, and beyond the ending of ring-fencing in April 2011, and the abolition of PCTs by April 2013.

The study is divided into three phases. Phase 1 includes a literature review and interview with key informants which will together define tracer issues to be examined in Phase 2. In Phase 2 we will collect qualitative data to more fully populate the activity system framework outlined in Phase 1, so enabling us to explore different factors which impact on the relationship between commissioners and GDPs. In Phase 3, the hypotheses generated in Phase 2 will be tested in a wider range of situations, involving questionnaires and telephone interviews with larger numbers of dentists and commissioners where contract terms will vary and personalities are different.

c. Data collection

Phase 1: Scoping: This phase has several components which will proceed concurrently. Within this phase a framework for three ‘general’ activity systems (GDP, GMP, commissioner) will be outlined, to be refined through the examination of specific cases, as the study progresses. By the end of Phase 1 a number of 'tracer issues' will be identified and a preliminary model established to guide the enquiry. This model will be refined as the study progresses.

Literature review: The literature review which will inform our primary research is described below in Section 5.

Interviews: We will undertake interviews with key stakeholders. We anticipate interviewing prominent spokesmen and opinion leaders for the dental profession, as well as dental (or medical) practitioners involved in delivering NHS care 'on the ground'. We will also interview a number of commissioners involved in negotiating contracts with dental practitioners. Participants will be purposively selected either because of their position in the organisation, or because they represent a 'typical' experience of either a (dental or medical) practitioner or commissioner. The interviews will be loosely structured and guided initially to a topic list including details of contracting, review and monitoring arrangements, business considerations, risk, relationship building, trust.

Phase 2: Case studies of dental practices and medical practices.
The second stage of the study will involve multiple case studies of general dental practices and general medical practices where data will be collected over a 12 month period so that the evolution of any changes in incentives and governance will be captured. The same process will be used to build up a picture of the activity system of commissioners. The purpose of this phase is to further develop the preliminary activity system frameworks making for a richer understanding of how GDPs, GMPs and commissioners understand their activities with regard to contracting of dental care and the value thereof. These cases will generate hypotheses concerning factors which facilitate and hinder the use of contracts to commission and deliver dental care. This picture will then be tested for similarities (or differences) with other investigative practices using an iterative process, so that a picture of the range of perspectives held is drawn up.

To populate each of the 6 elements we will use semi-structured interviews and non-participant observation. The interviews will be structured around the six elements identified by activity theory with questions designed to probe how each interviewee understands and experiences their embedded activity. Interviews may involve a number of people such as various members of the dental team, as well as some patients, in order to build up a full picture. Visiting practices to carry out interviews also provides opportunities for researchers to engage in informal observation. This approach has similarities with what is described by Van Maanan (1979: 540) as 'organisational ethnography' which aims to 'uncover and explicate the ways in which people in particular work settings come to understand, account for, take action and otherwise manage their day to day situation'.

With regard to commissioners we will also build up a picture of how they understand their embedded activity by structuring their interviews around the six elements identified by activity theory. Where possible we will also undertake some non-participant observation of their work activities and use some of these observations to identify relevant issues to be discussed during interviews.

We will also focus on the observed relationship between commissioners and GDPs (and GMPs), both in terms of words, and in action. This will involve

non-participant observation of meetings between these parties, as well as documentary analysis of contract agreements, reports and minutes of meetings. Where parties are open to meetings being taped, analysis of the nature and language of negotiation will be possible. We will observe over the 12 months of the study, where negotiations lead to mutually acceptable outcomes, and also where negotiations fail, with dental practitioners 'walking away' rather than sign a contractual agreement.

A third component of this phase will include within interviews with commissioners, about how they perceive GDPs (and GMPs), and themselves; as well as in interviews with GDPs (and GMPs) abouthow they perceive commissioners (and themselves). The validity of observations of behaviour during negotiations will also be tested by debrief interviews following contract review meetings.

Phase 3: Questionnaire to GDPs and telephone interview with commissioners
Emerging themes, with the refined model will be tested using a questionnaire to all GDPs in September 2012. This will assess GDPs' views of the relevance of our Phase 2 findings to their experience of PCT negotiations, assess the extent to which factors identified in the activity systems analysis affect their views on the outcome of negotiations and their intentions to work with NHS patients and GDPs' views on the importance to specific barriers to negotiation and possible solutions to problems. Preset items will be used, but GDPs will also be provided with the opportunity to generate their own content using 'blank items' where GDPs can insert their own content. Phase 3 outcomes will be used to create empirical base and build a more widely generalisable picture.

The questionnaire will be sent to 50% of GDPs in the 6 PCTs studied in case studies, as well as 50% of GDPs from a further 8 PCTs selected randomly from a list of the 152 PCTs in England. A recent study currently underway by the lead applicant involves GDPs from a national random sample of PCTs with a sample of 9 PCTs yielding a total of 1,100 GDPs from GDP lists were obtained from PCTs. Thus, it is anticipated that a 50% sample of GDPs from 14 PCTs would give a sample of about 1,000 GDPs, which would allow for a 60% response rate (again, an estimate based on similar types of study undertaken by the lead applicant), which would still yield sufficient responses for a reliable analysis. Including dentists working in PCTs outside the area where case studies were undertaken, will allow us to investigate whether participant bias may have influenced questionnaire results.

The questionnaire structure will examine GDP's involvement in the negotiating process (e.g., as the principal in charge of negotiations, a practice member being involved in the process, uninvolved). Based on Phase 2 work, we will assess GDPs' perceptions of the outcomes that constitute successful negotiations (e.g., business risk, professional and business autonomy, patient outcomes) and how successful the negotiations with commissioners have been in achieving them.

The next section will reflect the content of negotiations, informed by the outcome of the activity systems analysis of the six activity components. We will seek GDPs' interpretations of how satisfied they are in the ways that the negotiations addressed these components. A third section will address GDP perceptions of and attitudes toward PCTs and commissioners. Valid and reliable measures of trust, in terms of perceived ability, integrity and benevolence (Colquitt, Scott & LePine, 2007) and attitude (Ajzen, 1991) will be based on previous negotiation research. GDPs' intentions to continue, reduce, increase or cease their current NHS work will also be measured. Context specific measures of the strength of intentions to behave in a specific way are powerful proximal predictors of behavior (Ajzen, 1991; Webb & Sheeran, 2006). Finally, GDPs will be questioned on the relevance of barriers to successful negotiation that are identified in the activity systems analysis, and will also be asked torate the practicality and desirability of potential solutions also indentified in the activity systems analysis.

Questionnaires will also be sent to all commissioners in the 14 PCTs sampled. These questionnaires will be identical in structure and format to the GDP questionnaire. Content will be as close to the GDP questionnaire as is feasible, given the differences in issues and viewpoint pertaining to both. This similarity will enable comparisons to be drawn between GDPs and PCT commissioners.

Telephone interviews with PCT commissioners in the 14 PCTs sampled in Phase 3 will also be undertaken at the same time as the questionnaire in order to provide depth in the analysis and interpretation of findings. These interviews will be taped and transcribed for analysis, and will be focused on testing the hypotheses generated in Phase 2 of the research.

Commissioners in all 14 PCTs sampled will be interviewed, which means that for over half of the interviewees, they would not have been involved at an earlier stage of the research (Phase 2). This therefore gives us an opportunity to test findings in a range of different contexts, and allow us to look for any impact of participant bias.

d. Data analysis

Interviews will be tape recorded and transcribed. Field notes will be made during observation, which will then be annotated immediately after the session to allow an authentic reconstruction of what was witnessed. Documentary analysis will also take place. Qualitative data will analysed using a constant comparison method to generate codes and themes. Initial codes related to how each of the six elements of the activity system might be populated will be generated by the pilot work. These will then be used as a basis or template for a semi-structured interview schedule and for observations, out of which adapt further coding can take place inductively; the aim being to find narrower, more specific instances within these higher-level codes (King 1998). In this way these more defined codes develop further insight into how the initial higher-order categories.The upshot will be an activity system framework for each case. From these, a further round of higher level coding can take place to

arrive at an inductively tested form of general understanding of an activity system for a GDP, GMP and commissioner, as well as for the potential relations, tensions and sympathies between each of these systems.

Emerging perceptions from both the inductive and aggregate coding will be shared at 'data clinics' where researchers meet to discuss and test emerging themes. Analytical themes and observational notes will be discussed at regular project team meetings throughout the study to test assumptions, and identify areas for further investigation. Emerging concepts will be further probed and refined in interviews with the next participants to ensure validity of the data or to reject concepts which do not hold to further scrutiny. We also intend to involve members of the Project Advisory group and some of the research participants to check the validity of our perceptions. The software package NVIVO will be used to aid indexing and retrieval, analysis and presentation of coding themes.

5. Contribution of existing research:

Within the first phase of the research we will undertake a literature review to identify previously published work relating to the use of contracts within the context of public sector provision based on a commissioner-supplier relationship. In this, we will seek to identify core components identified as being determinants of the successful (or unsuccessful) use of contracts in this context. We will use electronic searches to include literature from the fields of social science, economics and organisational research. We will aim to identify the relevant theories previously used in this context, as well as the findings of major empirical research studies in the area.

6. Plan of Investigation:

The study will commence on 1st October 2010. Phase 1 will be completed by February 2011. Phase 2 (case studies) will take place between March 2011 and the end of January 2012. Questionnaires (Phase 3) and telephone interviews begin in September 2012, with analysis involving integrating of data streams and final reporting by August 2013.

7. Project Management:

The project will be overseen by an experienced academic team, led by Harris, who will be the project manager. The project team will feed their project plans into an Advisory Board which will advise and monitor the progress of the project. The Board will have a wide membership to represent public, professional and academic interests and will meet in the first three months of the project, and thereafter every nine months through the project, with additional meetings as needed. This would include a meeting in the final months of the project to comment on an early draft. The Board will help guide our enquiry (by suggesting study sites/providing introductions, informing the analysis of qualitative data), but will also help with the dissemination of findings.

The Advisory Board includes: a General Dental Practitioner, a PCT dental commissioner, a public/patient representation, a consultant /senior lecturer in Dental Public Health, a representative from the Department of Health (Dr Mike Warburton who, having spent 15 years as a GMP in West Sussex, became the Director of Commissioning and Deputy CEO of a PCT before moving to the Department of Health as National Programme Director for GP access. More recently he has also become Director for a national programme seeking to improve access to dental care, and it is this programme which has been identified as having a key role to play in devloping the naticipated new blended contracts in general dental practice. Professor Mark Gabbay is a clinical academic general medical practitioner, and Head of the Divison of Primary Care in the School of Population, Community and Behavioural Sciences, University of Liverpool. He is the Academic Associate GP at Brownlow Group Practice, Liverpool. He is a principal investigator at the Liverpool site for an SDO funded study on incentives and governance in relation to the GP contract (project reference 08/1618/126), due to finish shortly. He will be able to help recruitment of medical practices to case studies, as well as linking the new research with previous work in this area funded by the SDO programme. He will be valuable source of opinion in interpreting data in relation to medical practice.

A full-time, post doctorate researcher (Sarah Mosedale) is responsible for collecting and analysing data, coordinating day-to-day activities within the work plan, with adminitsrative support from a research associate (Jayne Garner). Financial management of the project will be overseen by University of Liverpool (Research and Business Services), and the Chief Investigator (Harris).

8. Service users/public involvement:

The project does not directly involve the provision of services to the patient, but is focused on professional and policy issues**.** However, in order to provide an opportunity for patient/public involvement in the project we have a patient/public representative on the Advisory Board. Some service users will also be interviewed in Phase 2.

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