Shared leadership in integrated care networks: the case of 'hub and spoke' networks in oral and maxillofacial surgery in the English NHS

Abstract

Purpose
The purpose of this paper is to explore leadership in the context of the hub and spoke network in oral and maxillofacial surgery (OMFS) in the English NHS.
Design/ Methodological Approach
This paper is a conceptual paper using literature relating to the antecedents of shared leadership and relevant policy documents pertaining to both NHS policy and the development of oral and maxillofacial surgery (OMFS). The paper is informed, theoretically by the conceptual lens of shared leadership.
Findings
The paper identifies the challenges that may be faced by policymakers and those involved in the hub and spoke network in developing shared leadership. It also reveals the implications for policymakers in developing shared leadership.
Research Limitations/ Implications
The paper is conceptual. It is acknowledged that this is a preliminary study and further work will be required to test the conceptual framework empirically. The paper discusses the policy implications of developing leadership in the hub and spoke network. As networks are of interest internationally this has wider relevance to other countries.
Originality/Value
There is limited research on the antecedents of shared leadership. In addition, the conceptual framework is applied to a new policy context.

Introduction

In the English NHS, integrated care is a key focus of recent policy initiatives advocating the development of networks and integrated care systems (ICSs) as a way of providing integrated care. This paper is a case study of a specific network: the 'hub and spoke' network in oral and maxillofacial surgery (OMFS) in the English NHS (BAOMS, 2020). The focus is leadership in this context. It is noted that leadership in networks has received little attention so far (Mitterlechner, 2020).

The order of the paper is as follows: firstly, it reviews the policy background, and development of networks, and in particular, the development of the 'hub and spoke' network in oral and maxillofacial surgery (OMFS); secondly, it explores the rationale for shared leadership and outlines a conceptual framework relating to its development; thirdly, it explores the development of shared leadership in networks using the framework and identifies the challenges; and finally, it discusses the policy implications in developing shared leadership in this context.

Policy Background.

Integrated care is not just a UK phenomenon; it is of interest to policy makers in many countries (Grone and Garcia-Barbero, 2001). Network-based care integration is being explored in the US, Australia, Canada, Denmark, Germany, the Netherlands, Switzerland, and Taiwan (Mitterlechner, 2020). In the NHS, policy interest in integrated care dates to at least 2014 with the publication of the 'Five Year Forward View' (NHS England, 2014). The latter said the emphasis should move from institutions to networks, stating that there is a 'need to manage systems- networks of care- not just organisations' (NHS England, 2014 16). It prompted the piloting of a range of integrated care models

designed to breakdown traditional barriers between primary care, community, and hospital care that have existed in the NHS since 1948 (NHS England, 2014).

More recent policy initiatives have continued to support integrated care and the development of networks. For example, the NHS Long Term Plan (2019), advocated the development of integrated care systems (ICSs) which are considered 'central to the delivery of the Long- Term Plan' (NHS England, 2019, 29). The Plan also introduced the idea of primary care networks (PCNs) bringing together GPs to work collaboratively with other services (NHS England, 2019). The NHS White Paper (DHSC, 2021) placed a key emphasis on promoting integrated care generally and reiterated the importance of integrated care systems (ICSs). Likewise, the most recent Government White Paper noted that given continuing fragmentation there is a need 'to go further and faster in building integrated health and care services' (DHSC, 2022, 8). It also gave support to the development of integrated care systems (ICSs) and provided clarity about governance arrangements, and accountability in developing integrated care (DHSC, 2022).

These policy initiatives have been reinforced by experience with the Covid-19 pandemic which has highlighted the importance of collaborative working as a way of responding to the crisis, (DHSC, 2022).

Given their central importance to policy makers, the next section will discuss the development of networks in healthcare**.**

Networks in healthcare

A more collaborative approach generally can be traced to the new Labour government in 1997 which attempted to shift away from the managerialist ideology, and marketisation of the previous government (Addicott, 2008). It is said that 'collaborative organisational forms and associated new forms of leadership have gained currency among governments of many developed -world countries' (Martin, *et al,* 2008, 771). Networks are one example of this approach. Networks now exist across the public sector for example, in housing, social care, and education (Willcocks, 2002). In healthcare, various types of networks have been introduced, including, for example, the managed network which is associated with service delivery (Randall, 2013). Emphasis on inter-organisational relationships in networks is seen as of value in addressing the problem of fragmentation (Willcocks, 2002). Also, networks are seen as providing a 'highly adaptive' response to so called 'wicked problems' such as those pertaining in the public sector (Provan and Lemaire, 2012 641). It is said networks are 'emerging as a potentially more effective way of working on intractable complex issues that have not been solved by traditional organisational models' (Randall, 2013, 4).

Unlike traditional public bureaucracies, networks give more emphasis to lateral as opposed to hierarchical, top- down modes of influence. Networks generally have been defined as: 'cooperative structures where an interconnected group, or system, coalesce around shared purpose, and where members act as peers on the basis of reciprocity and exchange, based on trust, respect, and mutuality' (Randall, 2013 8).They are potentially of interest where there is a need to harness the contribution of professionals and involve them in policy and decision making. Hence their interest in healthcare organisations. However, it has been noted that the 'co -existence' of hierarchy and markets in the public sector has made the introduction of both networks and leadership problematic (Martin, *et al,* 2008, 775). One of the challenges is understanding that in networks, power is distributed it does not derive from hierarchy (Randall, 2013). Distribution of power and leadership across the network is a distinctive feature of networks (Health Foundation, 2014).

Alongside interest in networks generally there has been interest in the idea of managed clinical networks (MCNs), such as those associated with cancer care, cardiac services and neonatal care (Skipper, 2010). Cancer networks have been well established since the 1990s (Addicott, 2008). In the case of oral medicine- a specialty related to oral and maxillofacial surgery (OMFS) – interest has been shown in developing managed clinical networks (MCNs), based on the hub and spoke model (NHS England 2015). Clinical networks are intended to 'shift emphasis away from buildings and organisations and on to patients and services' (Skipper, 2010, 241). They are defined as:

'teams' of clinicians from different organisations offering a comprehensive range of services in different locations across traditional boundaries' (Carter, *et al,* 2003, 26).

However, it is noted that development of clinical networks needs changes to infrastructure and both individual leadership and collective involvement in the network (Montgomery-Cranny, *et al*, 2017). As in networks generally, traditional hierarchical approaches to leadership may no longer be appropriate.
The next section will explore the development of a specific network- the hub and spoke network in Oral and maxillofacial surgery (OMFS).

Development of Oral and maxillofacial surgery (OMFS)

Oral and maxillofacial surgery (OMFS) as a specialty has developed from dentistry and is now a dual - qualified medical specialty. It is a relatively small specialty in the NHS with about 500 consultants (BAOMS, 2020). In terms of organisation, it is noted that 'traditionally single units operated independently providing a breadth of treatments' (Visholm, *et al*, 2021, 317). More recently, there is a trend for Oral and maxillofacial surgery (OMFS) units to join together to work across trusts (Morton, 2018). The work ranges from simple dentoalveolar surgery to highly complex surgery for head and neck cancer, deformity and other pathologies of the face, mouth, and jaws (Morton, 2018). In the case of the former it can take place on an outpatient or day case basis, and in the latter, it requires beds and intensive care (Morton, 2018). Head and neck cancer is said to be an important part of oral and maxillofacial surgery (OMFS) and a key influence on the development of the hub and spoke model (BAOMS, 2020, 6). The Calman-Hine report (1995), has been influential in the development of head and neck cancer (a sub- specialty of oral and maxillofacial surgery (OMFS), along with the NHS Cancer Plan (2000) and National Institute for Clinical Excellence (NICE) head and neck cancer improving outcomes guidance (IOG) (2004) (BAOMS, 2020, Morton, 2018).

The Improving Outcomes Guidance (IOG) has had the effect of encouraging specialisation in oral and maxillofacial surgery (OMFS services) and centralisation in larger units (Mullan, *et al*, 2014). Centralisation of services and adoption of the hub and spoke is said to be a general trend for specialist services (Layton and Badlani, 2007). Adoption of the hub and spoke in Oral and maxillofacial surgery (OMFS) was advocated by the British Association of Oral and Maxillofacial Surgeons in 2002 (Layton and Badlani, 2007). The latter noted the 'strong driving forces that encourage confederation of OMFS in-patient services into a managed network with a centralised site and the provision of outpatient, ambulatory and day surgical services at a number of satellite inter-related district general hospitals' (BA0MS, 2002, 3). It said one of the consequences of centralisation was that it would require a managed clinical network (BA0MS, 2002). This has been taken further by the 'Getting it Right First Time' (GIRFT) report (2018), which advocated a centralised 'hub and spoke' model (Visholm, *et al*, 2021). In this model, services are based across

more than one unit but with inpatient specialised services being provided at the hub, the latter often large units providing sub -specialty services (Morton, 2018). The model now features in the oral and maxillofacial surgery (OMFS) curriculum for training consultants. The latter aims to 'develop OMFS surgeons that can work in a hub and spoke model where patients are treated centrally for complex elements of their care but managed more locally' (Wolley and Laugharne, 2021, 5). The potential benefits are said to include optimising quality and efficiency, improved patient outcomes and patient experience, along with medical staffing, training, and financial benefits (Morton, 2018, BAOMS, 2020). As in collaborative working generally, the hub and spoke model in oral and maxillofacial surgery (OMFS) is said to have been beneficial in the Covid -19 pandemic (Visholm, *et al*, 2021).

It can be noted that the hub and spoke model is based on horizontal integration at the level of a clinical specialty. Variations of this model can be seen in other countries. For example, in the US it is said the 'hub and spoke model affords unique opportunities to maximise efficiencies and effectiveness' (Elrod and Fortenberry, 2017, 25). In Australia, innovative models such as 'hub and spoke models' have been adopted to deal with the problems of providing care in rural and remote areas (Petrich, *et al*, 2013, 351). In India, it is noted that the hub and spoke model has been implemented in some organisations as a way of improving access and meeting patient needs (Devarakonda, 2016). Like the UK, such countries require new ways of dealing with the challenges of delivering healthcare in the 21st century.

In the NHS developing the hub and spoke network is considered increasingly important by commissioners (Haq, *et al*, 2017). Some of the larger oral and maxillofacial surgery (OMFS) units are now part of a local hub and spoke network and it is said that 'continuing this process while ensuring there is effective embedded governance is the way forward' for the specialty (Morton, 2018, 11).

The rationale for the choice of shared leadership and conceptual framework, and the fit with the hub and spoke model, will now be discussed.

Rationale for Shared Leadership in 'Hub and Spoke' Networks in Oral and Maxillofacial Surgery (OMFS)

Traditionally, a 'hierarchical leader- centric paradigm' has tended to dominate in the literature (Zhu, *et al*, 2018, 835). In this regard, theories associated with transformational leadership have been popular (Hartley and Benington, 2010). Indeed, transformational leadership is said to be 'the most influential theory guiding healthcare leadership research' (West, et al, 2015, 10). This conceptualisation has been evident in healthcare alongside competency- based approaches such as the Leadership Qualities Framework (LQF) (2006) and the Medical Leadership Competency Framework (MLCF) (2009). However, individual models are said to have their limitations, given the 'pluralistic and political context of the public services' (Martin, *et al,* 2008, 772). A criticism of traditional, top -down, hierarchical approaches is that 'issues of power and culture are largely ignored' (Kelley-Patterson, 2013, 4). In the case of networks, 'the distribution of power and leadership' is said to be a key feature (Randall, 2013, 8). In terms of alternative approach, it is argued that traditional models based on individual 'heroic leadership' need to change to embrace more collective approaches like shared leadership (Kings Fund, 2011, ix). Recent research exploring the relationship between leadership and networks has noted that there has been a shift away from a single leader towards collective forms of leadership (Cristofoli, *et al,* 2020).

There are numerous collective approaches to leadership, for example, 'shared, collaborative, dispersed, distributed, or team leadership' (Nieuwboer, *et al*, 2019, 3). It is noted some of them

overlap or are used inter-changeably (Zhu, et al, 2018). While each of these has value, this paper adopts shared leadership as its theoretical orientation. It is acknowledged that there may be a 'potential dark side' to shared leadership, for example, it may hinder reaching a consensus, be linked to 'groupthink', or inhibit formal leadership (Zhu, et al, 2018, 848). However, shared leadership is said to be particularly valuable in healthcare, not least because it may 'bring more resources to the task, share more information and experience higher commitment with the team, generating greater levels of trust and respect' (Aufegger, et al, 2020, 128).

Shared leadership has received increasing attention, theoretically and empirically, particularly in relation to team performance (Fausing, *et al*, 2015). In terms of the latter 'shared leadership is particularly relevant to, and an essential driver of, team performance when teams operate under particularly challenging conditions in terms of time pressure or degree of risk' (Serban and Roberts, 2016,182). Emphasis on team performance may be compatible with networks given they are essentially team-based and operate in similar conditions. Also, there may be synergy between shared leadership and leadership in networks because of the way the latter is organised. It is noted that unlike hierarchies, leadership in networks is organised 'through cooperation and peer-based relationships' (Randall, 2013, 11). It can be argued that shared leadership is based on similar principles. Likewise, shared leadership may be appropriate as leadership in networks may need to be shared across institutional and organisational boundaries. A distinctive feature of networks generally is that power and leadership are distributed or shared across the network, (Health Foundation, 2014). In addition, shared leadership may be relevant specifically to medical leadership in that it fits with the conceptualisation of leadership as something that is intrinsic to a doctors' clinical role (Berghout, *et al*,2017).

Despite different ways of conceptualising shared leadership in the literature, three common characteristics have been noted: i) it involves a lateral influence process; ii) it is emergent in character; and iii) role and influence is dispersed throughout the team (Zhu, *et al*, 2018). In terms of a definition that encapsulates these characteristics it is stated that shared leadership is: 'an emergent team property that results from the distribution of leadership influence across multiple team members' (Carson, *et al,* 2007, 1218). This is part of a shift in leadership focus 'from a top-down vertical influence process to a horizontal and shared leading process among team members' (Zhu, *et al*, 2018, 834). Shared leadership is based on 'mutual influence and shared responsibility among team members' (Aufegger, *et al*, 2020, 128). Similarly, 'leadership is an emergent property' in which influence is shared within the team rather than just the individual leader and may be widely dispersed across the organisation (Zhu, *et al*, 2018, 837). These various definitions imply emphasis on the leadership *process* as opposed to the individual leader which is said to be a consequence of the evolution of collective approaches to leadership (Cristofoli, *et al,* 2020).

An emergent and dispersed conceptualisation of leadership is consistent with the context of oral and maxillofacial surgery (OMFS). In the latter, different specialties work with co-located or inter-dependent services such as head and neck cancer, critical care, and major trauma, and are required to work together in the diagnosis, treatment, and follow- up, of patients with highly complex, potentially life-threatening, problems (BAOMS, 2020). Characteristics of this context lend themselves to leadership that is dispersed across the network, and allows for the development of mutual influence, and involvement of different network members in the leadership process (Aufegger, *et al*, 2020).

In terms of developing shared leadership, it is noted that there may be antecedent factors predisposing towards a shared approach (Carson, *et al*, 2007; Serban and Roberts, 2016; Willcocks

and Conway, 2022). Antecedent factors may influence the extent to which the shared leadership process is enacted and results in the achievement of team and organisational goals or outcomes. It is noted that 'most research pertaining to the proximal outcomes of shared leadership has explored how shared leadership shapes team processes, which in turn contribute to team successes' (Zhu, et asl, 2018, 843). This paper builds on an earlier paper (Willcocks and Conway, 2022), which uses evidence from extant literature to suggest a framework based on three generic categories of antecedent factors relating to shared leadership. Firstly, individual leadership is an important antecedent factor (Fausing, *et al*, 2015). In the context of networks, it has been suggested that there isn't one ideal form of leadership- individual, distributed, or shared- that fits all situations; rather different leadership might fit different situations, (Cristofoli, *et al,* 2020). It is argued that individual leadership may still be required. In fact, in healthcare it is said both individual and distributed forms of leadership coexist (Martin, *et al*, 2008). Secondly, the internal team environment is a key factor in considering the context for developing a shared approach (Carson, *et al*, 2007; Serban and Roberts, 2016). It is reported that shared leadership 'is first and foremost developed, shaped and sustained by an [appropriate] team environment' (Aufegger, *et al*, 2019, 317). The final category is external environment, the wider organisational, cultural, and structural context within which individuals and teams engage in the leadership process. These three factors may combine to act as antecedents of shared leadership in the hub and spoke and contribute to enactment of the leadership process which in turn should lead to the achievement of both team and organisational outcomes (table 1).

1 Antecedent factors	**2. Shared leadership process**	**3.Outcomes of shared leadership**
(i).Formal/individual leadership (ii).Internal team environment (iii). External environment	Enactment of shared leadership process, engagement of the team with decision making and setting direction	Team outcomes- satisfaction, motivation, performance Organisational outcomes- performance goals

Table 1 Antecedent factors relating to Shared Leadership (based on Willcocks and Conway, 2022)

Methodology

It can be noted that the paper is non- empirical application of this framework, although it is loosely based on a case study method. The latter has been chosen as it best represents the purpose of the paper which is to explore leadership in the context of a specific case or unit of analysis ie oral and maxillofacial surgery (OMFS). The chosen approach fits the definition of an 'intrinsic' case study wherein the aim is 'for better understanding of a particular case' (Stake cited in Grbich, 1999, 188). Case study methodology is considered pertinent given it 'focuses on understanding the dynamics present within single settings' (Amaratunga and Baldry, 2001 99). As noted above, networks generally are considered important by policy makers and are worthy of further analysis. Case studies are seen as 'oriented towards producing policy recommendations' and are therefore relevant to the aims of this paper (Grbich, 1999, 190).

Unlike other potential approaches, case study methodology tends to be based on theory as the structure for guiding the analysis (Mohd Noor, 2008, Meyer, 2001). The theory guiding the analysis in this paper is that associated with shared leadership. The intention in this paper is to offer a critical analysis of the antecedents of shared leadership in the case of oral and maxillofacial surgery (OMFS) hub and spoke network. The conceptual framework will be used to provide structure in discussing the challenges of developing leadership and identifying the policy implications.

The next section uses the framework to consider these challenges in the context of the hub and spoke network in oral and maxillofacial surgery (OMFS).

Developing Shared Leadership in the context of 'Hub and Spoke' Networks in Oral and Maxillofacial Surgery (OMFS)

(i)Formal /Individual Leader Individual leadership has been identified as a key theme in the governance of the network in the form of a 'network clinical lead', and network manager (BAOMS, 2020, 8). While shared leadership implies emphasis on the leadership process (Cristofoli, *et al,* 2020), it does not preclude the need for individual leadership in fact, the two approaches can 'operate in tandem' (Zhu, *et al*, 2018, 837). Enacting the leadership process in the network requires individual leadership to act as an antecedent of shared leadership. This is particularly in terms of developing relationships in the network, and ensuring the cooperation of network members (Randall, 2013). What is required is the 'buy in and enactment by individuals at all levels of an organisation' (Martin, *et al*, 2008 772). In terms of the hub and spoke network, a particular challenge will be developing relationships with clinicians and ensuring their 'buy in' with the decision-making process. Engagement from both organisations and individual clinicians is considered a 'critical success factor in the implementation of network arrangements' (BAOMS, 2020, 9). However, ensuring engagement is not without problems. It is well known that historically there have been problems with clinical engagement in the UK NHS. Indeed, 'one of the biggest weaknesses of the NHS has been its failure to engage clinicians, particularly, but not only doctors' (Kings Fund, 2011, ix).

The role of individual network leaders may be challenging in this context, particularly where hub and spokes exist on an informal basis, (ie without service level agreements) (Morton, 2018). Enacting the leadership process may depend on the approach taken by individual leaders. For example, top - down, hierarchical approaches to leadership may be incompatible in a network context (Martin, *et al*, 2008). A facilitative style of leadership is already emerging as part of general trend away from hierarchal to collective forms of leadership (Cristofoli, *et al,* 2020). In the case of multidisciplinary teams (MDT) which are part of the network the role of individual leaders is to facilitate the decision-making process not make decisions themselves (Bossi and Alfieri, 2016).

Likewise, the fluid, 'boundary-less' nature of networks may represent a challenge for individual network leaders used to more traditional organisations. What is required is the ability to 'to look outside the confines of their part of the system and to collaborate across boundaries' (Kelley-Patterson,2013, 5). Ability of leaders to cooperate across boundaries is said to be urgently needed (West, et al, 2015). However, this may require a transition for those who are used to hierarchy (Randall, 2013). Whether they can make this transition might depend on their background, and experience in leadership. As the hub and spoke is a clinical network, it might depend on whether individuals have the necessary clinical experience to enable them to generate support, and trust and develop relationships across the network. The challenge for network clinical leads, and others involved in the multi-disciplinary network board, will be to work across network boundaries and facilitate engagement across the network, and empower others to get involved in shared leadership

(ii) internal team environment. Enacting the shared leadership process in the network also requires a conducive team environment. As noted, team environment is a key factor in developing and sustaining shared leadership (Aufegger, *et al*, 2019). Research has suggested that certain team characteristics might contribute to developing shared leadership (Zhu, et, al, 2018). For example, it is suggested that to facilitate shared leadership 'team members must work toward the same goals and interact and depend on each other in solving tasks and, thus, experience a certain degree of

interdependence' (Fausing, *et al*, 2015, 272). Increasing interdependence is seen as required in healthcare organisations to ensure more personalised services (Randall, 2013). Networks generally require inter- dependence amongst their constituent parts to function effectively.

Networks include clinical teams, for example, the multidisciplinary team (MDT) for head and neck cancer, which is an essential component of the hub supporting the various spoke hospitals, and is considered important internationally (De Felice, *et al*, 2019). Networks may also include a multi-disciplinary network board involving those in hub and spoke networks and potentially primary care (BAOMS, 2020)**.** However there maybe challenges depending on the nature and characteristics of such teams. There might be 'unrealistically high expectations of network members willingness or ability to collaborate' (Randall, 2013, 12). In the case of oral and maxillofacial surgery (OMFS) surgeons work in multi-disciplinary teams that consist of a wide variety of different specialists such as oncologists, orthodontists, restorative dentists, plastic surgeons, anaesthetists, and ear, nose and throat (ENT) surgeons each with their own characteristics. While such teams generally interact together effectively ensuring cooperation and inter-dependent working may still bring challenges given the specialist nature of such teams. It is noted in the context of multidisciplinary teams (MDTs) that the possession of specialist expertise is not always associated with effective team working (Bossi and Alfieri, 2016). There may be barriers to collaboration depending on differences in professional identification processes undermining shared leadership in interprofessional teams (Forsyth and Mason, 2017, 292). Also, the extent to which teams in spokes cooperate with the hub may be dependent on what the individual priorities are for certain consultants. Some may be less motivated to engage in cross-planning between sites. Consultants with a focus elsewhere may be somewhat detached from getting involved in the planning of care for acute services across the sites. The challenge is to ensure that those involved can function well together, work interdependently, and be involved in decision-making in clinical teams or network board, notwithstanding varying degrees of involvement and differing professional priorities.

(iii). External Environment. This is the wider context within which 'hub and spoke' networks operate and may act as an antecedent factor influencing the extent to which the shared leadership process is enacted and achieves team/ organisational outcomes. This might include both formal factors such as governance structure and processes, and informal factors such as culture and the distribution of power. Governance arrangements in networks may be relevant. In oral and maxillofacial surgery (OMFS) such arrangements include a network board, which has multi-disciplinary representation from hub and spokes and responsibility for network governance, a network clinical lead, and network manager (BAOMS, 2020). In general, where governance is shared 'network members themselves are actively involved in governance responsibilities… [they] interact frequently to ensure coordination and collaboration occurs, that conflict is minimised, and that participants stay focused on network-level goals' (Provan and Lemaire, 2012 644). Ensuring the active involvement of network members is one of the challenges in the governance of the network.

Similarly, existence of potentially different culture (s) across hub and spokes may present challenges. Hub and spoke networks work in a wider context alongside other related services such as those in trauma or critical care. It has been noted in relation to developing new roles that in addition to problems of professional identity noted above there may be further issues arising from different cultures in different settings (Gilburt,2016). The culture of the hub and spoke and its organisation will have a bearing on the work of the oral and maxillofacial surgery (OMFS) clinical teams, and network board, for example, whether such factors are supportive of a devolved or shared approach to decision making. However, culture itself may not be amenable to influence or change. It has been

observed that 'there may be weak cultures, where an organisation may consist of several different and potentially competing sub-cultures; or there may be strong sub-cultures and counter- cultures' (Willcocks, 2002, 271). These may be seen in professional cultures as, potentially, in networks. This may be problematic in that 'steep hierarchical gradients still seem to exist both within healthcare professions and specialties, and between different professions' (Green, *et al*, 2017, 452).

Culture may influence the extent to which power sharing is considered appropriate across the network and acceptable as part of the decision- making process. For example, it is noted that 'if a cultural attribute is that of 'do not question authority', the ramifications for shared leadership seem likely to be different than a culture where 'questioning authority' is highly valued' (Pearce and Sims, 2000, 132). This is complicated by the fact that power is a diffuse concept, the power structure may be fragmented and dispersed across the network with participants retaining autonomy (Van Raak, *et al*, 1999, 394). As noted, distribution of power and leadership is a key feature of the network (Health Foundation, 2014).

The challenge is to ensure that culture, power sharing, and other wider aspects such as governance structures within the network are supportive of, or compatible with, shared leadership

Policy implications in Developing Shared Leadership in the Networks

Application of the conceptual framework suggests there may be policy implications in developing shared leadership in the 'hub and spoke' network. These will now be explored.

It can be noted generally that unlike individual *leader* development, collective *leadership* development is less well developed (West, et al, 2015). This suggests the latter should be given equal if not more priority. It also suggests there might need to be emphasis on the leadership *process* as a collective entity not just individual leadership.

Shared leadership may need to be given more priority by hub and spoke networks locally, and by key agencies such as NHS England, Health Education England, General Medical Council (GMC), and Faculty of Medical Leadership and Management (FMLM) (established by all UK medical Royal colleges).The latter is particularly important as the professional body for medical leadership and setting of leadership standards.

(i)Formal /Individual Leadership Development needs to take account of the various challenges faced by clinical leaders, such as the potential conflict between their clinical and leadership roles, challenges associated with professional identity, and more practical issues such as time and support for the role. Specific development may be required for individual leaders given that leadership in networks is different from hierarchical approaches to leadership (Randall, 2013). More emphasis needs to be placed on development that takes account of the context of the network and the role for network members in the decision -making process. The latter requires individual leaders to work collaboratively with other members of the network to ensure that there is a shared leadership. Networks generally need leaders who can encourage collaborative working across the network (Mitterlechner, 2020).

Development may be situated within the network and/or be carried out prior to involvement in networks, that is, in training situations. The former is an experiential, 'learn while doing', approach (Aufegger, *et al*, 2020, 132). In general, this is said to be the best approach (West, et al, 2015). In terms of prior training, it is suggested that the introduction of 'shared leadership competencies' into clinical and non- clinical curricula may be helpful (Aufegger, *et al*, 2020, 132). Shared leadership competencies could be included in the intercollegiate curriculum for oral and maxillofacial surgery

(OMFS) trainees, that is, for those who will assume leadership roles as oral and maxillofacial surgery (OMFS) consultants. In fact, a stated aim of the oral and maxillofacial surgery (OMFS) curriculum for training consultants is to develop the ability to work in, and lead, multi-disciplinary teams (Wolley and Laugharne, 2021).

In terms of 'what' needs to be developed, research has suggested various leadership approaches such as empowering leadership, or servant leadership may be related to developing shared leadership (Zhu, et al, 2018). Empowering team leaders are said to be 'particularly important to encourage and empower team members to lead themselves and each other' (Fausing, *et al*, 2015, 272). This may be relevant in networks given the emphasis on facilitating collaborative working between network members. Individual leaders may need to develop their style of leadership consistent with the need to be able to influence and persuade, and work across boundaries (Kings Fund,2011). They may also need to develop skills and behaviours relevant to the network context including ability to adapt in an uncertain environment. It is said leadership in networks is 'about adaptive work' (Martin, *et al*, 2008 772). This may include ability to deal with the dynamics of the context, its political nature, and potential for conflict between network members. Skills such as diplomacy and political skills, and those relating to conflict resolution may be appropriate. Building trust is considered important: trust is said to be 'critical for network performance' (Provan and Kenis, 2007, 237). Likewise, individual leaders may require influencing skills consistent with the fact that hub and spoke networks cut across institutional boundaries and are not necessarily part of the same authority structure.

ii) Internal Team Environment Teams are important generally, given that team environment is a key factor in developing shared leadership (Carson, *et al*, 2007; Serban and Roberts, 2016). Teams are considered essential internationally, for example, in their ability to provide coordination between different specialists (De Felice, *et al*, 2019). In the case of oral and maxillofacial surgery (OMFS), the curriculum mentions that consultants are trained to work with a variety of colleagues from all settings (Wolley and Laugharne, 2021).

In general, it is suggested there is a need for 'team'development, as opposed to individual development in professional silos. The 'siloed nature of training' is said to be a barrier to integration (Gilburt, 2016, 22). What is needed is 'carefully aligned policy levers that ensure that organisations within networks have drivers which incline them toward networked collaboration rather than operation within silos' (Martin, *et al*, 2008 790). Specific development may be required in developing team member involvement with shared leadership consistent with a network context. It is said that developing 'collective leadership is best achieved by a developmental focus on the collective, rather than on individual leaders alone' (West, et al, 2015, 22). For example, this might include ensuring that teams in networks are able to work together inter- dependently, (Fausing, *et al*, 2015). Team development may focus on developing trust, respect, mutual interest and shared purpose (Randall, 2013). External coaching (Carson, *et al*, 2007), and mentoring, coaching, action learning, and multisource feedback may be relevant (Green, *et al*, 2016, 849). Coaching may help individual team members 'learn new skills, handle difficult problems, manage conflicts or learn to work effectively across boundaries; (West, et al, 2015, 18). Coaching and mentoring is offered by the Faculty of Medical Leadership and Management (FMLM). Also, understanding the needs of team members may be apposite, for example, a need for 'a high level of shared understanding' (Aufegger, *et al*, 2019, 309). Similarly, it is noted that teams need shared understanding of goals, a sense of support and recognition, encouragement, and involvement within the team, to develop and share leadership activities (Carson, *et al*, 2007). Developing shared understanding of goals may be a focus of team development. It is said 'a failure to reach a sufficiently common understanding across members of purpose and direction' is one the reasons why networks might fail (Randall, 2013, 12).

Teams also need to agree what they will 'share' in terms of leadership consistent with the network context (Willcocks, 2018). There are different views on both what is shared and how it is shared

(Zhu, *et al*, 2018). Teams might share leadership behaviours such as: initiating structure behaviours (task oriented); consideration behaviours, (relations oriented); envisioning behaviours (change oriented); and spanning behaviours (oriented towards dealing with the boundary between team and wider organisation) (Bergman, *et al*, 2012, Willcocks, 2018). Collectively, these behaviours may be relevant in terms of building relationships, adapting to change, and working across boundaries which are related to the characteristics of the network. Emphasis on change-oriented behaviour may ensure the network is able to do 'adaptive work' (Martin, *et al,* 2008 772). More specifically, shared leadership may require certain skills and behaviours: '(1) mutual understanding and cooperative attitudes; (2) listening, empathy and emotional intelligence; and (3) effective communication and collaboration' (Aufegger, *et al*, 2020, 129). These skills and behaviours may be relevant to network members given they are required to operate through reciprocal relationships, 'based on trust, respect, and mutuality' (Randall, 2013 8). Such skills and behaviours may constitute 'what' needs to be developed within the team. Development may also include a focus on 'how' shared leadership is shared, ensuring that a process of individual and collective learning is embedded in the network. In terms of the latter, it is said this 'depends crucially on context and is likely to be best done 'in place', highlighting the important contribution of organisation development and not just leader development' (West, et al,2015, 4).

iii) External Environment Attention needs to be focused on understanding whether the wider context of the network is supportive of a shared approach to leadership. It has been noted that antecedent conditions in the external environment have been somewhat neglected (Sweeney, *et al,* 2019). It is agreed that any development needs to include 'a focus on developing the organisation and its teams, not just individuals, on leadership across systems of care rather than just institutions, and on followership as well as leadership' (Kings Fund, 2011, ix). Ensuring effective governance is considered crucial to the operation of the hub and spoke network (Morton, 2018). This includes the way in which governance of the network is constituted and roles are established compatible with a shared approach to decision making. Equally, there is a need to take account of the relationship with cultural factors. It is said that 'organisational cultures in healthcare must be nurtured in parallel with changes in systems, processes and structures' (West, et, al, 2015, 5). This would mean exploring the extent to which the culture of the network is compatible with a system of devolved decision making and distribution of power across the hub and spoke network. In networks there is an emphasis on collective culture 'to act as the glue that holds an organisation together' (Addicott, 2008, 150). It is suggested there is value in a 'collective leadership culture [which] is characterised by shared leadership where there is still a formal hierarchy, but the ebb and flow of power is situationally dependent on who has the expertise at each moment' (West, et, al, 2015, 3).

Specific development may be needed in terms of aligning the external environment with developing shared leadership and contributing to shared responsibility with decision making (Aufegger, *et al*, 2020). It has been noted in the literature that important antecedent factors include ensuring a 'supportive culture, power sharing norms, [and] horizontal structure' (Sweeney, *et al,* 2019, 122). Unlike traditional hierarchical organisations, the latter is a key feature of networks. Similarly, it has been suggested that antecedent factors in the external environment include support systems, reward systems and cultural systems (Pearce and Sims, 2000). It is important that these are appropriate to developing shared leadership in the network context. For example, they need to be designed to allow network members to get involved directly in governance activities (Provan and Lemaire, 2012). Development may need to be context -specific, ensuring that it: 'focuses on roles, relations and practices in the specific organisation context and requires conversations and learning with people who share that context' (Turnbull -James, 2011, 4). Overall, such development needs to create a supportive environment within which shared leadership will flourish. It is suggested this 'means leaders working collectively and building a cooperative, integrative leadership culture- in effect collective leadership at the system level' (West, et, al, 2015, 4). It is noted that establishment

of integrated care systems (ICSs) as part of recent policy initiatives will help provide this supportive environment for collaborative working and integrated care (BAOMS, 2020). A supportive environment is considered imperative in the development of shared leadership (Aufegger, *et al*, 2020).

Concluding Comments

This paper contributes to understanding leadership in the context of the 'hub and spoke' network in oral and maxillofacial surgery (OMFS) in the English NHS. As noted, leadership in networks has received little attention so far (Mitterlechner, 2020). It is acknowledged that a limitation of this paper is that it explores just one approach to leadership ie shared leadership. However, while there are other approaches worthy of application shared leadership is considered particular relevant in the case of the 'hub and spoke' network in oral and maxillofacial surgery (OMFS).

The paper uses a conceptual framework based on antecedent factors that predispose towards a shared approach to leadership (Willcocks and Conway, 2022). Antecedent factors are said to be an under-research area (Carson, *et al*, 2007; Fausing, *et al*, 2015; Serban and Roberts, 2016). It is noted, however, that the paper is limited to a non- empirical application of the conceptual framework and needs to be developed further and applied empirically

In terms of developing shared leadership in oral and maxillofacial surgery (OMFS) it is agreed with the view that: 'leadership development needs to be deeply embedded and driven out of the context and the challenges that leaders in the organisation face collectively' (Turnbull- James, 2011, 4). Given the nature of the challenges in the networks, there is a need for both individual and collective support to enable those involved to contribute to shared leadership. This support may include both pre and post hoc support, that is i) training initiatives prior to involvement in networks, for example, in under/ postgraduate curricula and ii) ongoing individual/ team development within the operation of the network. Such support should be aligned with both the needs and challenges of different stakeholders, and with the overall aims of the network.

Further development of integrated care is considered important by policy makers. The success or effectiveness of networks requires developing new ways of working, not least, a collaborative approach to leadership. The latter is considered of wider strategic significance beyond the English NHS given international interest in developing integrated care.

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