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Identifying and understanding the factors that influence the functioning of integrated healthcare systems in the NHS: a systematic literature review

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ABSTRACT

Objectives The National Health Service has been moving towards integrated care for the best part of two decades to address the growing financial and service pressures created by an ageing population. Integrated healthcare systems (IHSs) join up health and social care services and have been established to manage the care of individuals with complex chronic conditions but with varied success. It is therefore imperative to conduct a Systematic Literature Review (SLR) to identify and understand the factors that influence their successful functioning, and ascertain the factor with the greatest influence, in order to ensure positive outcomes when establishing future IHSs.

Methods Articles published between 1 January 1997 and 8 March 2020 were analysed from the following six databases: Healthcare Management Information Consortium, Nuffield Trust, Cumulative Index to Nursing and Allied Health Literature, PubMed, National Institute for Health and Care Excellence Evidence and Health Systems Evidence. Those deemed relevant after title and abstract screening were procured for subsequent review of the full-text article.

Results Thirty-three finalised articles were analysed in this SLR to provide a comprehensive overview of the factors that influence the functioning of IHSs. Factors were stratified into six key categories: organisational culture, workforce management, interorganisational collaboration, leadership ability of staff, economic factors and political factors. Leadership was deemed to be the most influential factor due to its intrinsic and instrumental role in influencing the other key factors.

Conclusions The findings of this SLR may serve as a guide to developing tailor-made recommendations and policies that address the identified key factors and thereby improve the functioning of present and future IHSs. Furthermore, due to both its overarching influence and the inadequacy of literature in this field, there is a strong case for further research exploring leadership development specifically for IHSs.

Strengths and limitations of this study

- This is an in-depth systematic literature review uncovering important factors that can be applied when developing policies pertinent to the effective functioning of integrated healthcare systems (IHSs) in the National Health Service (NHS).
- The selection of studies was based on a specific eligibility criteria, which ensured that the articles in this study were specific to the NHS and IHSs.
- The literature search was conducted across six electronic databases enabling good breadth for selection of papers.
- Seventeen articles were excluded due to the full texts being unobtainable, resulting in the possibility that important contributions on the factors influencing the success of IHSs were not considered.

INTRODUCTION

The ever-changing healthcare needs of the UK population present a constant challenge for the National Health Service (NHS). An ageing population together with a rise in the prevalence of long standing illness among the younger population has shifted the focus from preventing premature death due to acute illness to managing complex chronic conditions, which requires a coordinated and collaborative effort between families, carers, and the health and social care systems.[1 2] The growing financial and service pressures facing the NHS, which have been exacerbated further by the current COVID-19 pandemic,[3] cannot be tackled without transforming how health and social care are delivered.[4] Old models of care, which have focused primarily on providing episodic treatment for acute illness, must be replaced with new patient-centred models that integrate health and care services to meet today's population health needs.[1] Constant evaluation of these models is crucial to ensure the constituent organisations synergise together and fulfil the larger systemic goals of the NHS. The COVID-19 pandemic has necessitated the synergistic working resulting from integrated care in

order to achieve more efficient and effective communication between organisations. Such benefits have played a vital role in the coordination of the national vaccine programme in managing COVID-19, and will undeniably be crucial in any future pandemics and, in the wider context, the development of the system to better fulfil the healthcare needs of the population.

Integrated care has been a feature of NHS policy for the best part of two decades. However, despite initiatives by successive governments, system-wide integration has not yet been achieved. Progress to date has been slow and has not delivered all of the expected benefits for patients, the NHS or local authorities.[5] The term was first described in 'The New NHS' in 1997, and several integrated healthcare systems (IHSs) have since been introduced to join up health and social care services, such as Sustainability and Transformation Plans (STPs) in 2017 and the current form of Integrated Care Systems (ICSs), which were introduced in the NHS Long Term Plan in 2019 and have evolved out of the set of existing network of STPs. In April 2021, all 42 parts of England were declared ICSs and, in July 2021, the government set to publish legislation proposing statutory ICSs for Parliament to consider, with implementation set for April 2022.

Rationale

As the NHS advances further towards integrated care, it is necessary to identify and study these factors to harness the facilitators and address the barriers. While existing reviews have identified these factors acting as facilitators and barriers to implementing integrated care, there lies a gap in the literature regarding which factor is the most influential. This review aims to comprehensively identify the factors acting as facilitators and barriers to integrated care and subsequently deduce any underpinning factors that have the most influence. A broad understanding of these factors, and the factor(s) with the most influence, is needed to enable their optimisation and ensure positive outcomes when establishing future IHSs in the NHS.

Objectives

- To comprehensively identify the factors that influence the functioning of IHSs.
- To deduce any underpinning factors that have the most influence in the functioning of IHSs.

BACKGROUND TO THEORY:

What is the NHS?

The NHS refers to the UK's government-funded healthcare system. Health services are provided 'free at the point of delivery', meaning that any UK resident can visit a doctor who will offer diagnosis or treatment for an illness without asking the individual for payment during or after the visit. As these health and care services are 'publicly funded', money has been allocated by the government to pay for this visit to the doctor through UK residents paying tax.[6]

What is integration and integrated care?

Over 175 competing definitions for 'integration' and 'integrated care' exist within literature,[7] reflecting what Kodner describes as 'an imprecise hodgepodge'.[8] Nonetheless, one of the earliest and most robust definitions from a review by Kodner and Spreeuwenberg states that:

'Integration is a coherent set of methods and models on the funding, administrative, organisational, service delivery and clinical levels designed to create connectivity, alignment and collaboration within and between the cure and care sectors. The goal of these methods and models is to enhance quality of care and quality of life, consumer satisfaction and system efficiency for patients with complex, long term problems cutting across multiple services, providers and settings. The result of such multipronged efforts to promote integration for the benefit of these special patient groups is called 'integrated care'.[9]

In essence, 'integration' involves bringing organisations together with the ultimate aim of improving outcomes and service experience for patients who require access to multiple health and care services through the practice of 'integrated care' at various levels. There are three levels to integration: the macro level where integrated care is delivered to whole populations, the mesolevel where it is delivered to a particular care group or population with the same condition (eg, heart disease), and the micro level where integrated care is delivered to individual service users and their carers.[10] In addition, integration can occur horizontally when two or more organisations or services that deliver care at a similar level come together (eg, mergers of acute hospitals), or vertically when two or more organisations or services delivering care at differing levels come together (eg, mergers of acute hospitals with community health services). There are also six key requirements for effective integration.[11] This includes:

- Organisation integration, where organisations are brought together by mergers and/or structural change, or virtually via contracts between separate organisations.
- Functional integration, where non-clinical support and back-office functions are integrated.
- Service integration, where different clinical services provided are integrated at organisational level.
- Clinical integration, where patient care is integrated in a single process both within and across professions, for example, use of shared guidelines.
- Normative integration, where there exist shared values in co-ordinating work and securing collaboration in delivering healthcare.
- Systemic integration, where there is coherence of rules and policies at all organisational levels.

What are IHSs?

The term IHS has been used to denote the working together of different healthcare organisations as a single cohesive body with the aim of addressing population health needs. This encompasses STPs and ICSs, the latter of which is the latest among initiatives to integrate care

in the NHS. By this definition, an ICS is an IHS; however, IHSs aren't limited exclusively to ICSs and can refer to any integrated body tasked with delivering integrated care such as STPs.

What is a successful IHS?

The NHS has traditionally based its definition of success on performance metrics that are specific to the production process of the NHS, which involves inputs (funding), processes (patient waiting times) and outputs (number of patients treated).[12] However, there has been a lack of emphasis placed on the ultimate outcome, which is high quality patient care. Alongside the need to provide more holistic outcomes, as well as the NHS moving towards integrated care, a new understanding of success is required. For the purpose of this study, the success of IHSs should be defined as patients having a seamless experience across all health and social care services they interact with, reducing inefficiencies and non-value steps in the patient journey and ultimately improving outcomes at a lower cost.[1 13]

METHODOLOGY

Protocol

This systematic literature review (SLR) was reported using the Preferred Reporting Items for Systematic Reviews and Meta-analysis framework, which was developed according to published guidance by the Enhancing the Quality and Transparency Of health Research Network.[14]

Eligibility criteria

As outlined in table 1, this review will consider qualitative studies that address factors that influence the establishment and/or functioning of IHSs within the UK. The NHS has a unique organisational structure including national bodies, local clinical commissioning groups, and healthcare providers. For this reason, articles were excluded that pertain to the private health and care sector, the business sector, and international IHSs in order to make findings specific to this unique context. Articles were limited to the English language to be legible by the authors.

This review considered literature published in the years 1997–2020, as 'The New NHS', published on the 8 December 1997, represents one of the earliest examples of literature calling to 'replace the internal market with integrated care', thereby serving as the starting point for research activity on the topic of integration in the NHS.[15]

Information sources

The search was implemented on 8 April 2020 across six electronic databases: Healthcare Management Information Consortium, Nuffield Trust, Cumulative Index to Nursing and Allied Health Literature, PubMed, National Institute for Health and Care Excellence Evidence and Health Systems Evidence.

To supplement the comprehensive literature search, a 'snowball' technique was adopted, whereby the reference list for all relevant articles was scanned to identify further relevant articles.

Articles found through this literature search consisted of thought pieces as well as those which were empirically driven or peer reviewed. As a result, the contributions of each article were also assessed in accordance with the hierarchy of evidence.[16] The categorisation of these articles are detailed in table 2.

Search

The search strategy was developed through consensus-based discussion and agreement between all authors. The final search string was as follows:

("Integrated Health*" OR "Integrating Health*" OR "Integrated Care*") AND (Factor* OR Perform* OR Success* OR Fail*)

The search query was tailored to the specific requirements of each database. The adapted electronic search strings for each database can be found in online supplemental appendix A.

Selection of sources of evidence

Initially, all authors independently screened only the title and abstract (or background in white papers) of each article to preclude the waste of time and energy from reviewing full-text articles that fail to meet the eligibility criteria. To ensure consistency among all authors, a pilot

Table 1 Inclusion and exclusion criteria for articles selected in this study

Inclusion	Exclusion
Articles relevant to the health and care sector	Articles relevant to other sectors such as the business sector
Articles addressing the implementation of IHSs specifically within the UK	Articles that pertain to International IHSs with different organisational structure to the UK
Articles published after 1997	Articles published prior to 1997
Articles with a full-text accessible for thorough analysis	Articles that only had an accessible abstract, not allowing for comprehensive analysis
Articles relevant to the public health and care sector	Articles relevant to the private health and care sector
Articles written in the English language	Articles not written in the English language

IHSs, integrated healthcare systems.

Table 2 Characteristics of sources of evidence

Characteristic	No (n=33)	Percentage (%)
Publication year		
1997–2004	0	0.0
2005–2009	2	6.1
2010–2014	11	33.3
2014–2019	17	51.5
>2020	3	9.1
Study ype		
Qualitative study	9	27.3
Report	15	45.5
Scoping Narrative Literature Review	1	3.0
Systematic Literature Review	5	15.2
Case Study	3	9.1
Database		
EMCARE	3	9.1
HMIC	7	21.2
BNI	1	3.0
HSE	2	6.1
EMBASE	1	3.0
CINAHL	3	9.1
Nuffield Trust	6	18.2
PubMed	5	15.2
N/A	5	15.2
Data categories		
Needs	9	27.3
Barriers	20	60.6
Facilitators	21	63.6
Recommendations	16	48.5

CINAHL, Cumulative Index to Nursing and Allied Health Literature; HMIC, Healthcare Management Information Consortium; HSE, Health Systems Evidence; N/A, not available.

screening was initially completed in which each author screened the same 200 articles independently. From this, all reviewers independently agreed on all but four articles; however this was resolved on discussion to clarify the eligibility criteria, which was then amended to increase specificity and clarity. Consequently, the pilot ended in comprehensive agreement on the eligibility criteria and resulted in the reviewers having the same view on which papers should be accepted or rejected.

All articles deemed relevant after title and abstract screening were procured for subsequent review of the full-text article. The full-text articles were then assessed for eligibility and a proportion were excluded, resulting in a final selection of studies to be included in the SLR. As this was an unfunded project, 17 articles were unobtainable through our institutional search and due to these financial limitations access to the full-text versions of abstracts that were found on database searches was restricted.

Data extraction chart

The following key identifiable information was extracted from each article: the author(s), year of publication, title, database the article was retrieved from, journal, study type, DOI or URL. The articles were also stratified under the following headings: needs identified, barriers identified, facilitators identified and recommendations. The categories were identified qualitatively through the language used in articles to describe each factor, with a quantitative record of the number of mentions in each article also noted. The categories were found to be highly interdependent and therefore it must be noted that there was some overlap between them. The findings were reported in a 'Data Extraction Chart' table format (see online supplemental appendix B). The main revision to the headings in the chart included the addition of 'Recommendations' as articles often framed influential factors in the form of recommended actions to improve IHSs.

All authors jointly extracted the data from each article using 'Google Sheets', discussed the results and continuously iterated the data extraction chart. An interpretivist approach was then used to draw the factors that were identified from the data extraction chart into the corresponding themes and subsequently identify any underpinning factors that have the most influence in the functioning of IHSs. This particular approach is one of social construction as opposed to objectivity, and thus was used to analyse the various subjective perspectives of the authors within the literature. This method involved an initial extraction in which each author had the opportunity to further research independently into the content of the literature. This process enabled diversity of thought into the subject matter with each author developing their own interpretations of the data extraction. Furthermore this enhanced reflectivity and analysis of key themes, a crucial component towards a rigorous review process.

Patient and public involvement

Patients or the public were not involved in the design of this study.

RESULTS

Search results

The overall search resulted in 33 finalised articles to be included in the SLR. The flow of records in the search process is conveyed in figure 1.

Characteristics of sources of evidence

Table 2 describes the categories into which the data from each article was inserted, accompanied by the year of publication, database and study type.

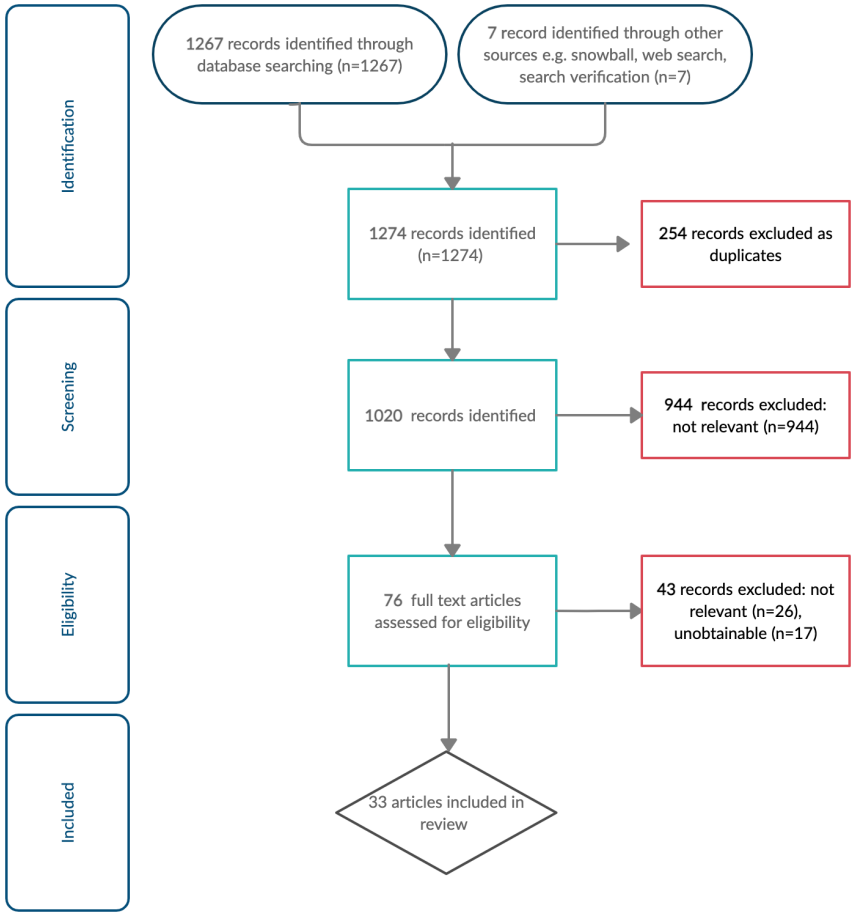

Figure 1 Process of identifying search results, screening, assessing for eligibility and inclusion.

Summary of evidence

From 1997 to 2019, an increasing number of selected articles were published (0% in 1997–2004, 6.1% in 2005–2009, 33.3% in 2010–2014 and 51.5% in 2014–2019). This reflects the growing field of research into IHSs leading up to The NHS Long-Term Plan, influencing its strategic focus on integration.[17]

The factors that influence the functioning of IHSs were framed as needs in 27.3% of articles, barriers and facilitators in 60.6% of articles, and as recommendations in 48.5%. On the basis of the language used to describe each factor, all factors were categorised into themes.

The themes identified were:

1. Organisational culture—an informal organisational system of shared values (ie, what is important) and beliefs (ie, how things work), that influence the environment and produce behavioural norms (ie, the way we do things around here).
2. Workforce management—the formal organisational arrangements that enable staff to carry out the tasks at hand as productively as possible.
3. Interorganisational collaboration—the formal and informal organisational arrangements that build trust and collective relationships between organisations.
4. Leadership ability of staff—an informal organisational system by which one individual influences others toward attaining defined goals.
5. Economic factors—formal organisational arrangements relating to the consumption and supply of resources.
6. Political factors—formal organisational arrangements relating to the government or public affairs of a country.

See online supplemental appendix B to view the 'Data Extraction Chart' displaying the exact language used by each article to describe the identified factors, and their categorisation into each of the themes listed above. See online supplemental appendix C to view the 'Synthesis of Results' displaying all findings from each article stratified by the identified themes.

In this SLR of 33 articles, each factor identified influences the functioning of IHSs by either shaping their planning and implementation, or their ongoing functioning, or both. The factors that pertain to each stage are made clear in the summaries below. Furthermore, integration poses its own unique challenges and requires a unique set of factors to meet these challenges. The factors outlined below are described in the context of

IHSs, rather than in the context of a conventional organisation. Although these themes are clearly defined, it is worth noting that they are not mutually exclusive and are highly interdependent.

Organisational culture

A total of 82% of articles cited issues relating to organisational culture, including the need for leaders to communicate a shared vision to effectively plan and implement integration.[18–23] This demands a mutual understanding of and commitment to the vision across the organisations involved.[24] Differences in geographical boundaries, communication boundaries, status inequalities, professional cultures, working practices and priorities can lead to divides between staff from different organisations, creating conflict and a 'blame culture' that stifles ongoing integrated working.[25–29] Fostering an ethos of learning and self-reflection was also shown to yield positive outcomes as staff continue to work together long term.[26 28 30]

Workforce management

Factors relating to workforce management were expressed in 76% of articles, such as the need to provide staff with adequate incentives to 'buy into' the integration process as the new style of working is established in the NHS.[31 32] Healthcare staff need to be trained for the new roles they may need for integrated work,[33] and leaders must encourage staff to take 'ownership' of new service models as they are planned and implemented by involving them in decision making.[25 34] Furthermore, integrating services often requires increased workloads at the start and overworking staff can reduce motivation to collaborate with other sectors, yielding high staff turnover and poorer outcomes. Therefore, managing the workload of staff is key in both the initial stages of implementation and the ongoing functioning of IHSs.[25 27]

Interorganisational collaboration

As IHSs involve cooperation between different organisations, 70% of articles demonstrated the need for factors relating to interorganisational collaboration to both achieve and sustain integrated care. These include: interprofessional teamwork involving both top-down and bottom-up communication,[24 25 35] the formation of good working relationships built on trust,[26 35 36] and the presence of shared information technology platforms between organisations to enable easy data sharing.[20 21 24–26 31 37 38] The lack of ongoing planned communication between members of partnering organisations leads to contact often being limited to emails with minimal face-to-face interaction, and was often cited as a barrier to long-term collaboration.[27]

Leadership ability of staff

A total of 82% of articles addressed leadership ability of staff, outlining that successful integration requires a combination of clear leadership and governance from senior managers at the macro level with strong involvement of front-line staff as clinical leaders at the micro level,[21 35 38–41] together with local authority figures acting as local leaders.[19 25 31 33]

The unique challenges posed by planning and implementing integration include: high levels of pressure and stress faced by staff, high turnover of staff as personnel changes are made, and a lack of stability among the leadership workforce as their roles are adapted.[28] These challenges require leaders to support the emotional wellbeing of staff, set clear and measurable goals, identify and scale innovation from pilot programmes, and establish governance structures that drive faster change.[20 28]

The ongoing functioning of IHSs is highly influenced by the ability of leaders to shift from organisational leadership (leading individuals within one organisation) towards 'systems leadership' (leading individuals across multiple organisations),[18 30 34 42 43] part of which involves the creation of strong relationships with team members and allegiances within leadership groups.[28 34 44]

Economic factors

Economic factors, such as the reluctance of commissioning organisations to pool budgets, and low levels of funding and staff, often with inadequate training, were cited as barriers to planning and implementing integrated care in 61% of articles,[30 32 33] and the need to devise long-term plans with an appropriate level of funding was expressed as vital to preserve the ongoing functioning of IHSs.[18 27] Providing a manageable caseload without overstretching human resources is also a crucial success factor for the long-term functioning of IHSs,[33] as it was in the case of Coastal Locality in Torbay and South.[35] Payment methods such as payment by results (PbR) that incentivise activity in hospitals over other providers and were also identified as barriers to the continued functioning of IHSs.[25]

Political factors

Political barriers to the planning and implementation of IHSs were expressed in 52% of articles, examples of which include the fragmented strategic direction from national government with conflicting leadership approaches by different government entities,[24 25 32 33] together with difficulties in agreeing budgets and uncertainty regarding the level of integration that is desired.[45] Furthermore, failures of policy-makers to evaluate and learn from the pitfalls of existing policies and translate published evidence into political action served as barriers to the ongoing delivery of integrated care.[45]

DISCUSSION

After synthesising the results, the categories of factors identified were ascertained to be under the responsibility of either leaders within IHSs (organisational culture, workforce management, interorganisational collaboration, leadership ability of staff) or policy-makers above (economic and political factors).

Figure 2 The underpinning role of leadership in influencing other key factors in integrated care.

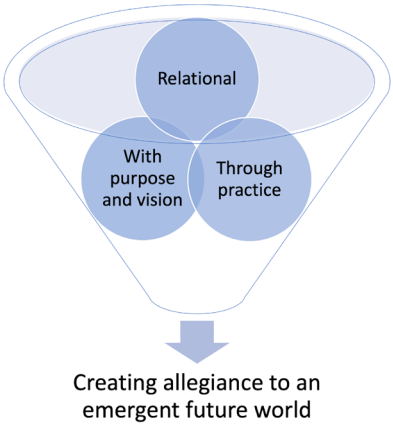

Figure 3 Visual representation of the 'connecting' model.[35]

Detailed analysis carried out by all reviewers identified a significant overlap between leadership and the three core factors (organisational culture, workforce management and interorganisational collaboration) during the review process. A total of 82% of articles emphasised the importance of organisational culture, which is determined by the core values cultivated by leaders in order to establish a shared culture in which all members feel represented. Moreover, 76% of articles emphasised the importance of workforce management in IHSs. In managing the workforce, compassionate leadership should be employed to mould an environment through 'consistently listening, understanding, empathising and helping' staff.[46] Leadership which is more enabling and facilitative of the workforce leads to increased productivity, resulting in better delivery of care and ultimately improved health outcomes for patients. The third principal factor discussed in the results is inter-organisational collaboration, discussed in 70% of articles. It can be inferred that effective leadership has the potential to create an atmosphere consistent with achieving a common goal by cooperating effectively with other organisations. However, IHSs carry a lot of 'uncertainty and ambiguity',[47] which further stresses the need for a leader to create a network of trust and communicate a shared vision across multiple organisations.[48]

As a result, group reflection among reviewers revealed that leadership has an intrinsic and instrumental role in influencing the other three key factors, as depicted in figure 2.

In the argument for leadership being the most influential factor, both Charles *et al* and Tweed *et al* expressed the need for 'systems leadership' to implement the system-wide change required for integrated care.[18 34] Charles *et al* describe that systems leadership involves the creation of a positive organisational culture by 'communicat(ing) a shared vision and purpose'; effective management of the workforce through 'frequent personal contact with others and resolv(ing) conflicts'; and the need to facilitate organisational collaboration by 'build(ing) trust and rapport with partner organisations to move away from competition and towards forming long-term collaborative relationships'.[19] Systems leadership is a concept that is supported by the views of Kellerman who states, 'Leadership is a system not a person' and incorporates the followers and the context within which they work in addition to the leaders themselves.[49] This implies that all members in the organisation play a key role in effective leadership, in that individuals can adopt the role of leadership in each task they carry out. This role can vary depending on the context of the task.

Tweed *et al* developed on this further by introducing a model of 'connecting' (figure 3) to create an allegiance based on qualitative research involving the active participation of leaders achieving transformational change. The conceptualisation of leadership as a system is further justified through the responsibilities of leaders included in this model: leading with 'purpose' and 'vision', shaping organisational culture, and managing the workforce in a 'relational' manner 'through practice' by collaborating between organisations, which correspond with the key themes identified in the results.[35]

When considering the 'followers' and the 'context' components of leadership as a system, it is important to note that collaboration between multiple healthcare bodies requires leaders to work with numerous organisational cultures. For example, in a study by Smith *et al*, there are clear differences in the culture between healthcare and social care bodies, which create two distinct uniprofessional cultures. These are two key aspects that integrated care aims to converge, through the use of interorganisational collaboration.[50]

Another responsibility of leaders in IHSs is to effectively implement a clear governance system that creates an overarching structure overseeing the functioning of IHSs. This is necessary in creating order, accountability, and setting a clear direction in a relatively recent healthcare structure

that lacks a distinct 'rule book',[51] thereby ensuring that integrated operations are sustained long-term.

The SLR also identified economic and political factors to be crucial in the function of IHSs. These were interpreted to be largely in the hands of governments and policy makers who determine the strategic direction of integration, resource availability, and payment mechanisms. The capacity to amend these factors is relatively inflexible, while leadership and its overarching factors can be optimised despite any systemic economic and political constraints.

Thus, leadership is not only the most influential factor, but also the factor with the greatest capacity to be influenced. However, leadership cannot be changed overnight and requires the development of leadership skills across the organisation. This necessitates an extended period of time to develop, resulting in a gradual change in functioning rather than a quick fix.

It has been suggested that the successful implementation of integrated care has improved certain patient outcomes, such as hospital admission rates, length of hospital stay and patient satisfaction.[52 53] It can therefore be inferred that strong leadership in IHSs is extremely valuable in the delivery of high quality healthcare to patients. However, the relationship between integrated care and the long lasting outcomes on patient health requires further follow-up and research.[54]

Ultimately, a gap lies in this field of literature. Evans *et al* noted that, while 'Leadership Approach' and 'Clinician Engagement and Leadership' are among the most important capabilities shaping the capacity of organisations to implement integrated care, they have not been consistently studied.[39] As such, there is much value to be gained by undertaking further research to explore deeper the role leadership plays in influencing its attributed factors.

LIMITATIONS

When analysing the selected full-text articles, the authors found issues discussed in literature to be multi-faceted, leading to overlap between the factors identified when synthesising the results. Interpretation and categorisation of these factors may have been subject to individual bias.

Seventeen articles were excluded from this study due to the full-texts being unobtainable due to reasons explained in the methodology. These were excluded after title and abstract screening, resulting in a proportion of papers and their contribution on factors influencing IHSs being forgone and thus limiting the extent of the SLR. Therefore, it is recommended that future researchers invest in payments to journals to be given access to the full scope of articles.

Due to the evolving nature of IHSs there is an inevitable lack of widespread IHS-related terminology across literature. As a result it is likely that relevant studies were missed during the search process reducing the breadth of information available for analysis.

In addition, the inclusion of grey literature in the search uncovered challenges such as the lack of extensive search tools for these papers which resulted in web searching- a method that is not as thorough as the use of databases.

CONCLUSION

This SLR presented an overview of a multitude of key factors that influence the functioning of IHSs in the NHS relating to organisational culture, workforce management, inter-organisational collaboration, the leadership ability of staff, economic and political factors. Within ICSs in the NHS, 'system leadership' was found to be vital to achieve the transformational change required to integrate care and meet the ideals of The NHS Long Term Plan.[17] This is a concept that has been identified in other articles - underlining that leaders in healthcare must develop more in the domains of collaborative working and coalition.[54]

The current available literature includes material which discusses the ideal implementation of integrated healthcare, such as the work from Jon Glasby and Helen Dickinson who explore specific challenges related to delivering integrated care.[55] However, the shift of the NHS towards integrated healthcare is an ongoing narrative and the findings of this SLR provide a topical review of the literature. This will help to better contextualise the current state of IHSs and act as a key stepping stone towards the development of tailor-made recommendations and policies to address and optimise these factors within present and future IHSs in the NHS. In addition, there is a strong case for further research exploring leadership development, due to its underpinning influence on the other categories of factors and the identified gap within the literature that pertains to this field.

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Contributors All authors contributed their thoughts in the formulation of the research idea. AT, RE and MS were involved in researching the background to the study. Findings were relayed to the fellow authors to ensure mutual understanding of core foundational concepts. Following this AT, RE and MS wrote up the introduction and background to theory. Objectives were formulated by MJ, KB, WP and VS. This was discussed with the rest of the team and further finalised. RE and MS designed the study protocol and made suggestions for initial search criteria for selection of studies. This was finalised during a whole group discussion. All authors contributed to the data extraction chart and continuously iterated throughout this process. KB, MJ and VS led the process of grouping factors identified from the studies into key themes. MS, VS, AT, MJ and KB wrote up the summaries of the findings from the data extraction chart in the results section. RE and WP assimilated the characteristics of the studies into a summary table (Table 2). All authors contributed content for the discussion section. This section was written up by AT, VS, MJ, WP and RE KB and MS identified limitations and discussed with the group. KB and MS further proceeded to write up the limitations section. Authors congregated to discuss the main conclusions drawn from the study. AT and WP proceeded to write this up. All authors read through the entire draft to underline potential changes. These were then implemented by MJ, VS, MS, WP and AT. The final draft, with changes, was looked over again by RE and KB before submission. All authors were in agreement of the final product. KB, RE, MJ, WP, VS, MS and AT are guarantors for this work.

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REFERENCES

1 Ham C, Imison C, Goodwin N, *et al*. The case for integrated care 2011;19.
2 Shah R, Hagell A, Cheung R. International comparisons of health and wellbeing in adolescence and early adulthood [Internet], 2022. The Nuffield Trust. Available: https://www.nuffieldtrust.org.uk/research/international-comparisons-of-health-and-wellbeing-in-adolescence-and-early-adulthood [Accessed 12 Jan 2022].
3 Ward S. NHS Covid costs are more than £1bn a month [Internet], 2020. Available: https://www.hfma.org.uk/news/news-list/Article/nhs-covid-costs-are-more-than-1bn-a-month [Accessed 24 Jul 2021].
4 NHS. Five Year Forward View [Internet], 2014. NHS. Available: https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf [Accessed 12 Dec 2020].
5 Department of Health. Health and social care integration [Internet], 2017. National Audit Office. Available: https://www.nao.org.uk/wp-content/uploads/2017/02/Health-and-social-care-integration.pdf
6 What is the NHS? [Internet]. Full Fact. Available: https://fullfact.org/health/what-is-the-nhs/ [Accessed 24 Jul 2021].
7 Armitage GD, Suter E, Oelke ND, *et al*. Health systems integration: state of the evidence. *Int J Integr Care* 2009;9:e82 http://www.ijic.org/article/
8 Kodner DL. All together now: a conceptual exploration of integrated care. *Healthc Q* 2009;13 Spec No:6–15.
9 Kodner DL, Spreeuwenberg C. Integrated care: meaning, logic, applications, and implications – a discussion paper. *Int J Integr Care* 2002;2 http://www.ijic.org/article/
10 Curry NHam C2010Clinical and service integration. The route to improved outcomesThe King's Fund
11 Fulop N, Protopsaltis G, King A, *et al*. Changing organisations: a study of the context and processes of mergers of health care providers in England. *Soc Sci Med* 2005;60:119–30.
12 Appleby J, Devlin N. Measuring NHS success [Internet], 2005. Kings fund. Available: https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/measuring-nhs-success-patients-views-health-outcomes-help-manage-performance-john-appleby-nancy-devlin-kings-fund-1-january-2005.pdf
13 Fillingham D. Can lean save lives? Bowerman J, editor. *Leadersh Health Serv* 2007;20:231–41.
14 Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. The EQUATOR Network [Internet]. Available: https://www.equator-network.org/reporting-guidelines/prisma/ [Accessed 12 Dec 2020].
15 The Department of Health. *The new NHS: modern, dependable ; presented to Parliament by the Secretary of State for Health by Command of Her Majesty [Internet*. London: The Stationery Office Ltd, 1997. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/266003/newnhs.pdf
16 Yetley EA, MacFarlane AJ, Greene-Finestone LS, *et al*. Options for basing dietary reference intakes (DRIs) on chronic disease endpoints: report from a joint US-/Canadian-sponsored Working group. *Am J Clin Nutr* 2017;105:249S–85.
17 nhs-long-term-plan-version-1.2.pdf [Internet]. Available: https://www.longtermplan.nhs.uk/wp-content/uploads/2019/08/nhs-long-term-plan-version-1.2.pdf [Accessed 12 Dec 2020].
18 et alCharles A, Wenzel L, Kershaw M. A year of integrated care systems: reviewing the journey so far [Internet]., 2018. The King's Fund. Available: https://www.kingsfund.org.uk/publications/year-integrated-care-systems [Accessed 12 Dec 2020].
19 González-Ortiz LG, Calciolari S, Goodwin N, *et al*. The core dimensions of integrated care: a literature review to support the development of a comprehensive framework for implementing integrated care. *Int J Integr Care* 2018;18:10.
20 Mackie S, Darvill A. Factors enabling implementation of integrated health and social care: a systematic review. *Br J Community Nurs* 2016;21:82–7.
21 Maruthappu M, Hasan A, Zeltner T. Enablers and barriers in implementing integrated care. *Health Syst Reform* 2015;1:250–6.
22 Rosen R, Mountford J, Lewis G, *et al*. Integration in action: four international case studies. *Res Rep* 2011;56.
23 Shaw S, Levenson R. Towards integrated care in Trafford [Internet], 2011. Nuffield Trust. Available: https://www.nuffieldtrust.org.uk/files/2017-01/towards-integrated-care-in-trafford-web-final.pdf [Accessed 12 Dec 2020].
24 Maslin-Prothero SE, Bennion AE. Integrated team working: a literature review. *Int J Integr Care* 2010;10:e043.
25 et alErens B, Wistow G, Mounier-Jack S. Early evaluation of the Integrated Care and Support Pioneers Programme [Internet], 2017. Available: https://piru.ac.uk/assets/files/Early_evaluation_of_IC_Pioneers_Final_Report.pdf
26 Ling T, Brereton L, Conklin A, *et al*. Barriers and facilitators to integrating care: experiences from the English integrated care pilots. *Int J Integr Care* 2012;12:e129.
27 Naqvi D, Malik A, Al-Zubaidy M, *et al*. The general practice perspective on barriers to integration between primary and social care: a London, United Kingdom-based qualitative interview study. *BMJ Open* 2019;9:e029702.
28 NHS Leadership Academy. Leadership in Integrated Care Systems [Internet], 2018. Available: https://www.scie.org.uk/files/integrated-care/leadership/systems/leadership-in-integrated-care-systems.pdf [Accessed 12 Dec 2020].
29 Smith J, Wistow G, Holder H, *et al*. Evaluating the design and implementation of the whole systems integrated care programme in North West London: why commissioning proved (again) to be the weakest link. *BMC Health Serv Res* 2019;19:228.
30 Wistow G, Gaskins M, Holder H, *et al*. Why implementing integrated care is so much harder than designing it: experience in North West London. England. *Int J Integr Care* 2016;16:A308.
31 Goodwin N, Smith J. The Evidence Base for Integrated Care [Internet], 2011. Available: https://www.kingsfund.org.uk/sites/default/files/Evidence-base-integrated-care2.pdf [Accessed 12 Dec 2020].
32 Urizar E, Nuño R, Alvarez C, *et al*. Barriers and facilitators for the implementation of integrated care pathways ICPs: a systemic perspective. *Int J Integr Care* 2018;18:131.
33 Harnagea H, Couturier Y, Shrivastava R, *et al*. Barriers and facilitators in the integration of oral health into primary care: a scoping review. *BMJ Open* 2017;7:e016078.
34 Tweed A, Singfield A, Taylor JRA, *et al*. Creating allegiance: leading transformational change within the NHS. *Leader* 2018;2:110–4.
35 Asthana S, Gradinger F, Elston J, *et al*. Capturing the role of context in complex system change: an application of the Canadian context and capabilities for integrating care (CCIC) framework to an integrated care organisation in the UK. *Int J Integr Care* 2020;20:4.
36 Best S. Facilitating integrated delivery of services across organisational boundaries: essential enablers to integration. *Br J Occup Ther* 2017;80:302–9.

37 Goodwin N, Smith J, Davies A, *et al*. Integrated care for patients and populations: improving outcomes by working together 2012;20.
38 NHS Future Forum [Internet]. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/213748/dh_127540.pdf [Accessed 12 Dec 2020].
39 Evans JM, Daub S, Goldhar J, *et al*. Leading integrated health and social care systems: perspectives from research and practice. *Healthc Q* 2016;18:30–5 https://www.longwoods.com/content/24553/healthcare-quarterly/leading-integrated-health-and-social-care-systems-perspectives-from-research-and-practice
40 Gleave R. Across the pond–lessons from the US on integrated healthcare [Internet], 2009. Nuffield Trust. Available: http://www.ijic.org/article/ [Accessed 12 dec 2020].
41 Ham C, Smith J, Eastmure E. Commissioning integrated care in a liberated NHS [Internet]., 2011. Nuffield Trust. Available: https://www.nuffieldtrust.org.uk/files/2017-01/1484821582_commissioning-integrated-care-in-a-liberated-nhs-report-web-final.pdf [Accessed 12 Dec 2020].
42 Wilkins. An allied approach to success in Oldham, 2020. Available: https://www.themj.co.uk/An-allied-approach-to-success-in-Oldham/216693# [Accessed 12 Dec 2020].
43 Deffenbaugh J. Becoming an integrated (accountable) care system. *Br J Healthc Manag* 2018;24:175–80.
44 Paice E, Hasan S. Educating for integrated care. *Lond J Prim Care* 2013;5:52–5.
45 Raus K, Mortier E, Eeckloo K. Challenges in turning a great idea into great health policy: the case of integrated care. *BMC Health Serv Res* 2020;20:130.
46 Carson D, Gilmore A, Perry C. *Qualitative Marketing Research [Internet]*. London England EC1Y 1SP United Kingdom: SAGE Publications, Ltd, 2001. http://methods.sagepub.com/book/qualitative-marketing-research-carson
47 Fillingham D, Weir B. System Leadership: Lessons and learning from AQuA's Integrated Care Discovery Communities;47.
48 Thakrar SV, Bell D. Sustainability and transformation plans: translating the perspectives. *Br J Hosp Med* 2017;78:580–3.
49 Kellerman B. Leadership–It's a *System*, Not a Person! *Daedalus* 2016;145:83–94.
50 Liljas AEM, Brattström F, Burström B, *et al*. Impact of Integrated Care on Patient-Related Outcomes Among Older People - A Systematic Review. *Int J Integr Care* 2019;19:6.
51 Baxter S, Johnson M, Chambers D, *et al*. The effects of integrated care: a systematic review of UK and international evidence. *BMC Health Serv Res* 2018;18:350.
52 Smith T, Fowler Davis S, Nancarrow S, *et al*. Towards a theoretical framework for integrated team leadership (IgTL). *J Interprof Care* 2020;34:726–36.
53 Kershaw M. Developing governance to support integrated care: a bumpy ride? [Internet], 2018. The King's Fund. Available: https://www.kingsfund.org.uk/blog/2018/10/developing-governance-support-integrated-care-bumpy-ride [Accessed 24 Jul 2021].
54 Curry LA, Ayedun AA, Cherlin EJ, *et al*. Leadership development in complex health systems: a qualitative study. *BMJ Open* 2020;10:e035797.
55 Curreri NA. Partnership working in health and social care. *Int J Integr Care* 2019;19:12.