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This study undertakes an in-depth and rigorous exploration and explanation of the sources and implications of ambiguity in *performance measurement systems and performance management practices* (PMM) systems of complex multi-stakeholder organisations. In doing so, it contributes to the literature on performance measurement theories. The study is undertaken in the form of a fine-grained, inductive case study with the Child and Adolescent Mental Health Services (CAMHS) of the National Health Service of England. Data are obtained from multiple exploratory interviews with CAMHS stakeholders.

The study surfaces factors that create ambiguities in the PMM practices of complex multi-stakeholder organisations, which interact in complex ways, raising questions over the value of PMM systems and practices. The originality of the paper is threefold. *First*, it opens a new area of debate in relation to performance measurement in complex multi-stakeholder organisations. *Second*, the findings demonstrate the complex interrelationships between the sources and manifestations of ambiguity advance the knowledge of PMM systems and implications in such organisations. *Third*, the findings reveal that the nature of complex multi-stakeholder organisations suppresses open, participative and inclusive social controls.

Keywords: Performance measurement; Complex multi-stakeholder organisations; Ambiguity; Organisational control

1. INTRODUCTION

Since being popularised by Kaplan and Norton (1992), *performance measurement systems* (Bourne 2005; Mendibil and MacBryde 2005; Mettänen 2005; Nudurupati and Bititci 2005; Tapinos *et al*. 2005; Alfaro *et al*. 2007; Garengo and Sharma 2014) and *performance management practices* (Pavlov *et al*. 2017; Bellisario and Pavlov 2018) have attracted the attention of scholars studying various organisational forms. Since then, *performance measurement systems and performance management practices* (PMM) have become commonplace in organisations, corresponding with the emergence of a number of PMM frameworks (Neely *et al*. 2000; Micheli and Kennerley 2005; Lega *et al*. 2013). Such frameworks have been used for managing the performance of organisations of varying sizes and sectors including complex multi-stakeholder healthcare organisations (see for example, Lega *et al*. 2013). Scholars have investigated the theory underpinning PMM (Franco-Santos *et al*. 2012) and use of PMM systems and practices in complex multi-stakeholder organisations, such as the National Health Service (NHS) (Chang 2009, 2015; Elg *et al*. 2013; Kelly *et al*. 2015).

Alongside the broader interest in PMM, there has been a growing academic interest in PMM within the public sector (Bititci *et al*. 2005; Micheli and Kennerley 2005), including public healthcare (Lega *et al*. 2013; Matthias and Brown 2016; Halkjær and Lueg 2017). Scholars have also undertaken a much wider appraisal of operations against narrowly defined measures (Melnyk *et al*. 2004) and explored the increasing use of performance measures that cater for intangible outcomes (Melnyk *et al*. 2014).

The ideas that underlie PMM have generally been framed upon rational choice theories (see March 1978, 1994; March and Olsen 1987). These theories are built on the premise that all action undertaken by individuals is primarily '*rational'*. In order words, individuals (managers) are rational actors who, prior to deciding on specific action, based on available information, will assess the potential costs and benefits of such action. Within a PMM perspective, managers will identify, select, use and

exploit information in a manner that reduces or preferably mitigates against '*complexity'* in the process, thereby maximizing performance levels. In this context, complexity refers to '*uncertainty'* (Noordegraaf and Stewart 2000; Noordegraaf and Abma 2003) or more appropriately, the "…*imprecision in estimates of future consequences conditional on present actions*" (March 1994). As complexity often leads to the creation of a multiplicity of representations, it generates '*ambiguity'* (Kovacic and Di Felice 2019).

Despite studies focused on articulating attributes of ambiguity within the context of PMM, i.e. what it is (Modell 2003; Parker 2011), what it produces (Johanson *et al*. 2006; Catasús *et al*. 2007), its impact (Vakkuri and Meklin 2006; Vakkuri and Johanson, 2020) and how its results are used (Speklé and Verbeeten 2014; Kallio *et al*. 2017), there remains a paucity of research focussing specifically on exploring the complex interrelationships between the sources and manifestations of such ambiguity. There is also very limited insight into the nature of the complex interplay between the effects of ambiguity and the use of PMM as a mechanism for open, participative and inclusive social control. Thus, this study serves as a response to calls by Bourne *et al*. (2018) for more research focussing on exploring inter-organisational stakeholder dynamics. We therefore set out in this study to specifically explore/explain the sources and implications of ambiguities in PMM systems of complex multi-stakeholder organisations. In the process, we present our research question as:

> *RQ: What are the sources and implications of ambiguity in performance measurement systems and performance management practices of complex multi-stakeholder organisations?*

In order to facilitate the development of meaningful insights and conceptual explanation, based on data gleaned from situationally grounded and bounded real-world settings, we conducted a fine-grained, inductive case study (Barratt *et al*. 2011; Ketokivi and Choi 2014). The research presented in this study provides a distinctive prospect to explore and better appreciate a contemporary phenomenon within its real world setting.

2. THE LITERATURE

2.1 Ambiguity

As a concept within decision theory (March 1994), ambiguity is found where goals are characterised by vagueness, paradoxes, inconsistency and ambivalence (Cohen and March 1974; Weick 1976). Ambiguity also refers to the existence of multiple and contradictory interpretations that can lead to the misstating of the problem faced by managers. Thus, Vakkuri and Meklin (2006) define ambiguity as "…*a lack of clarity and consistency in reality, causality and intentionality*" (p. 237). Ambiguity is also found in the absence of any specific and generally accepted means by which different choices available

to the decision maker can be combined. In order words, it implies "…*the condition of admitting more than one meaning*" (Giroux 2006, p. 1232). Joseph and Gaba (2015) note that '*ambiguity'* differs from '*uncertainty'* in that while ambiguity implies being "…*open to multiple interpretations*" (p. 1961), '*uncertainty'* suggests the absence of probabilistic knowledge for specified possible future outcomes (Knight 1921). One critical difference between the two is that while '*uncertainty'* can be mitigated through information availability, '*ambiguity'* requires collective framing of meaning. In effect, ambiguity involves a lack of understanding of causal relationships that occur when information and/or knowledge is imperfect (McIver and Lengnick-Hall 2018). Ambiguity can be detrimental to operations in that it can lead to confusion (Sonenshein 2010) and managerial indecision (Denis *et al*. 2011), both of which can lead to increases in intra-organisational conflict (Sillince *et al*. 2012).

The literature espouses the existence of a number of different types of ambiguity. These include: (i) '*casual ambiguity'* – the lack of understanding of cause-and-effect interactions between resources and competitive advantage (McIver and Lengnick-Hall 2018), (ii) '*passive ambiguity'* - failure to differentiate between different meanings of phenomena, and (iii) '*active ambiguity'* - purposeful encapsulation of different meanings of a phenomenon (Gregory 2000).

2.2 Ambiguity in PMM

The framing of '*ambiguity'* within PMM has its foundations within the notions of '*bounded rationality'*, an idea which posits that rational decision-making is constrained by both information available to an individual and the extent of their cognitive capabilities (see Simon 1978, 1991). Since an individual's cognitive limitations will lead them to behave as if presented with ambiguity, bounded rationality will lead to ambiguity (Mahmoudi and Pingle 2018).

Understanding ambiguity within the context of PMM is important because of its inherently paradoxical nature. For example, in complex business environments, the setting of clear and precise performance objectives may not be the best means of addressing operational dynamism and fluidity. Thus, on one hand, ambiguity is likely to lead to a lack of understanding among decision makers on the nature of causal relationships and structures within their organisation and how these may impact on effective and efficient PMM (Vakkuri and Meklin 2006). The existence of ambiguity also creates the platform for the strategic and political manipulation of PMM by managers keen to advance their interests by exploiting vague and fluid decisional chains, structures and lines of responsibility (McCabe 2010; Abdallah and Langley 2014; Chang 2015; Joseph and Gaba 2015; McIver and Lengnick-Hall 2018). On the other hand, ambiguity allows for loosely coupled units within the same organisation to balance their priorities and reach compromises, in a manner which allows for the beneficial use of PMM which would have been materially ineffective (see Meyer and Gupta 1994; Johnsen 1999; Van Thiel and Leeuw 2002).

Furthermore, ambiguous formulation of PMM targets may allow for performance to be furthered. This can be as a result of, for example, new and different perspectives of performance. It can also be as a result of more opportunities to be creative with PMM use (Stetler and Magnusson 2015). Ambiguous formulation of PMM may also provide the platform for increased levels of organisational commitment to performance targets. However, despite these paradoxes, the existence of complexity (Alexander *et al*. 2018; Dalalah *et al*. 2020) and the resultant ambiguity (Vakkuri and Meklin 2006) have been construed as an impediment to PMM that most organisations should aim to reduce or mitigate against (Stirling 2007; Kovacic and Di Felice 2019).

Ambiguity can emerge from a number of '*sources'*. In the majority of organisations, these '*sources of ambiguity*' include unclear power structures (McCabe 2010). In observing that the ambiguity perspective "*…is filled with limitations, conflicting interests, uncertainties, paradoxes and ambivalences, which make performance measurement a tricky undertaking*", Vakkuri and Meklin (2006, p.236) suggest that from a PMM perspective, there are three possible ways ambiguities arise. *First,* ambiguity over precisely what performance measurement is. Herein, Lebas (1995) suggests that the term '*performance'* is ambiguous in itself. Vakkuri and Meklin (2006) note that '*performance'* can be construed as both a product of action and the means of action (i.e., means and ends). *Second,* PMM ambiguity may relate to ambiguity over the type of knowledge PMM should produce and how. *Third,* PMM ambiguity over the purpose of PMM.

Noting that PMM, is "*…filled with limitations, conflicting interests, uncertainties, paradoxes and ambivalences*" (Vakkuri and Meklin 2006, p.236), it is reasonable to derive from the literature several possible '*sources of ambiguity'* within the PMM systems of complex multi-stakeholder organisations. Clearly, the heterogeneity of stakeholders, with differing priorities and pressures (May *et al*. 2014), may lead to ambiguities in the PMM systems of complex multi-stakeholder organisations (Vakkuri and Meklin 2006). Such ambiguity may manifest in different ways that may be related to: (i) the purpose of performance measurement, (ii) what is being measured and why, (iii) who decides what to measure and who the measurement is for, (iv) who uses and acts on the measures, (v) how often the measures should be reviewed, (vi) how measures are deployed throughout the organisation, (vii) how they are reported, and (viii) how they are implemented and used. In other words, it seems that ambiguities with PMM systems of complex stakeholder organisations could manifest themselves not only across the various phases of the PMM lifecycle (design, implement, use, re-design), but also at its technical (diagnostic and boundary) and social (interactive and belief) points of control.

Whilst the literature recognises multiple heterogeneous stakeholders as a key source of ambiguity in managing complex multi-stakeholder organisations in general, there is little knowledge on the sources

and implications of these ambiguities in relation to PMM systems and how these ambiguities manifest themselves in complex multi-stakeholder organisations; hence the rationale for our research question.

2.3 The PMM concept

The underlying concepts of PMM theory (illustrated in italics) include *performance measures*, defined by Neely *et al*. (1995) as *"…metric[s] used to quantify the efficiency and/or effectiveness of action"* (p. 80). In this context, a *Performance Measurement System* (PMS) is the process of setting goals, developing a set of performance measures, and then collecting, analysing, reporting, interpreting, reviewing and acting on performance data (Neely *et al*. 1995). Similarly, *Performance Management* is defined as the cultural and behavioural routines that define how the PMS is employed in managing the performance of the organisation (Melnyk *et al*. 2014).

These definitions incorporate a number of further concepts. These include *deployment* of organisational goals and objectives throughout the organisation to achieve *alignment* and ensuring that the whole organisation works towards common objectives (Maguire *et al*. 2012; Bracci *et al*. 2017). The PMS includes *feedback* and *feedforward* mechanisms (Neely *et al*. 1995, 2000, 2005). Here, feedback is concerned with goal attainment and feedforward is concerned with goal setting. In this context, organisations are complex systems and performance is considered a *multi-perspective* concept (Keegan *et al*. 1989; Fitzgerald *et al*. 1991; Kaplan and Norton 1992; Neely *et al*. 2002). From an organisational control perspective, PMM is considered a multidimensional concept comprising technical and social dimensions (Smith and Bititci 2017). As PMM involves the setting of goals, it is a form of organisational control (Bititci 2015; Smith and Bititci 2017). More specifically, performance measurement and performance management represent both *technical* and *social* control dimensions of organisational control, respectively (Smith and Bititci 2017). *Technical controls* refer to rational, planned, bureaucratic and structural elements of the organisation and include practices such as business planning, measuring performance and setting targets, policies and procedures and review, reward and disciplinary routines. *Social controls*, on the other hand, focus on emergent, cultural and behavioural aspects of the organisation and include practices such as shared values, collaboration, participatory decision-making, open and honest information-sharing and keeping promises.

Drawing from the literature, PMM has a *lifecycle* where it is *designed, implemented, used* and *re-designed* (Bourne *et al*. 2000; Bourne 2005; Neely *et al*. 2000, 2005). The design of the system could be purposeful or emergent. The design is deemed emergent where the performance measures have developed and evolved over time with no purposeful initiative to design a comprehensive PMS. A key consequence of poorly conceived PMM use is *internal competition* amongst the users that leads to these undesirable behaviours. Franco-Santos and Otley (2018) conclude that, in the design of PMM, the more

the 'assumed' reality about the state of *goal-alignment and goal-uncertainty* diverges from the 'real' state of affairs, the more the resultant system is likely to generate unintended consequences, leading to poor organisational outcomes. The *purpose of measurement* focuses on monitoring, legitimising, creating focus and learning and improvement (Henri 2006); *what is measured* focuses on financial, customer, process, learning and growth measures and leading *versus* lagging indicators; *who decides what to measure* (Pekkola and Ukko 2016) and *how measures are made explicit* (Neely *et al*. 2000). Regarding implementation and use, the main concerns are: (i) *How these measures are reported and shared* throughout the organisation - for example, exclusively for senior managers *as against being* displayed openly for everyone (Assiri *et al*. 2006), (ii) *how frequently and by whom performance is reviewed and acted upon* (Bititci 2015), and (iii) *how these measures are used,* e.g., directive *versus* participative (Smith and Bititci 2017; Franco-Santos and Otley 2018).

It is also now understood that the way in which PMS has been designed and how it is used does have a significant impact on how well it achieves its purpose. Furthermore, both PMS *design* and *use* can result in unintended (and sometimes adverse) consequences if the right balance between technical and social controls is not achieved (Smith and Bititci 2017). Franco-Santos and Otley (2018) find that the most salient unintended consequences of directive PMM are *gaming, information manipulation, selective attention, illusion of control* and *relationships transformation*.

3. RESEARCH METHOD

3.1 Context

To address the research question, we engaged with the Child and Adolescent Mental Health Services (CAMHS), a service unit of the NHS in England. CAMHS provides an appropriate context to examine the sources and implications of ambiguity in PMS systems. For example, it is responsible for providing treatment for young people experiencing mental health challenges under the auspices of NHS England, an executive arm of the Department of Health and Social Care (DHSC), in the United Kingdom (UK). Mental health conditions represent the largest cause of disability in the United Kingdom (Department of Health 2015).

CAMHS services are diverse and structured against '*tiers'*. Tier 1 services are generally expected to be provided by a range of agencies including school teachers, youth and social workers, and many different healthcare practitioners. Although Tier 2 services are more specialised, they also call on various professional skillsets, for example, school counsellors and educational psychologists. More specialised professional services are handled by Tier 3 which, again, involves multiple professional referrals from doctors and also from patient/care-giver/parent self-referrals. CAMHS services are widely regarded as being in crisis, principally because users are being exposed to disjointed care experiences. For example,

in a recent 2019 report by The Children's Society (a charity that assists vulnerable children and young people), two key observations were made on the state of CAMHS services in the UK; the first being that approximately 110,000 young people experiencing mental health challenges in the UK were being refused care, for reasons including that their conditions did not meet designated clinical threshold for CAMHS care. The second comprised concerns with the disparity in terms of the form and manner to which the performance of CAMHS services were being measured (The Children's Society 2019; p. 10). To further complicate matters, CAMHS has traditionally emphasised two contrasting philosophical outlooks (Deighton *et al*. 2014; Wolpert *et al*. 2014; Edbrooke-Childs *et al*. 2015); one '*idiographic'* and focused on articulating detailed accounts of care levels to specific patients, and the other '*standardised'*, emphasising broader indicators more likely to capture holistic (but less specific) measures of common mental health challenges - in effect, challenges most relevant to a majority of CAMHS patients.

Hence, we perceive an urgent need to engage with this problem from a service operations management standpoint, inspired by a vision of what better integrated and coordinated measurement and management of performance may look like, as well as a realisation that this is only likely to occur with effective elicitation of stakeholder participation and collaboration. This need for better integrated and more joined-up measurement and management of performance is already recognised as paramount within CAMHS-related performance management literature (Wolpert *et al*. 2012a, 2012b, 2014, 2016; Edbrooke-Childs *et al*. 2015) and in literature discussing performance measurement within broader organisational contexts (Melnyk *et al*. 2004, 2014; Henri 2006; Bititci 2015).

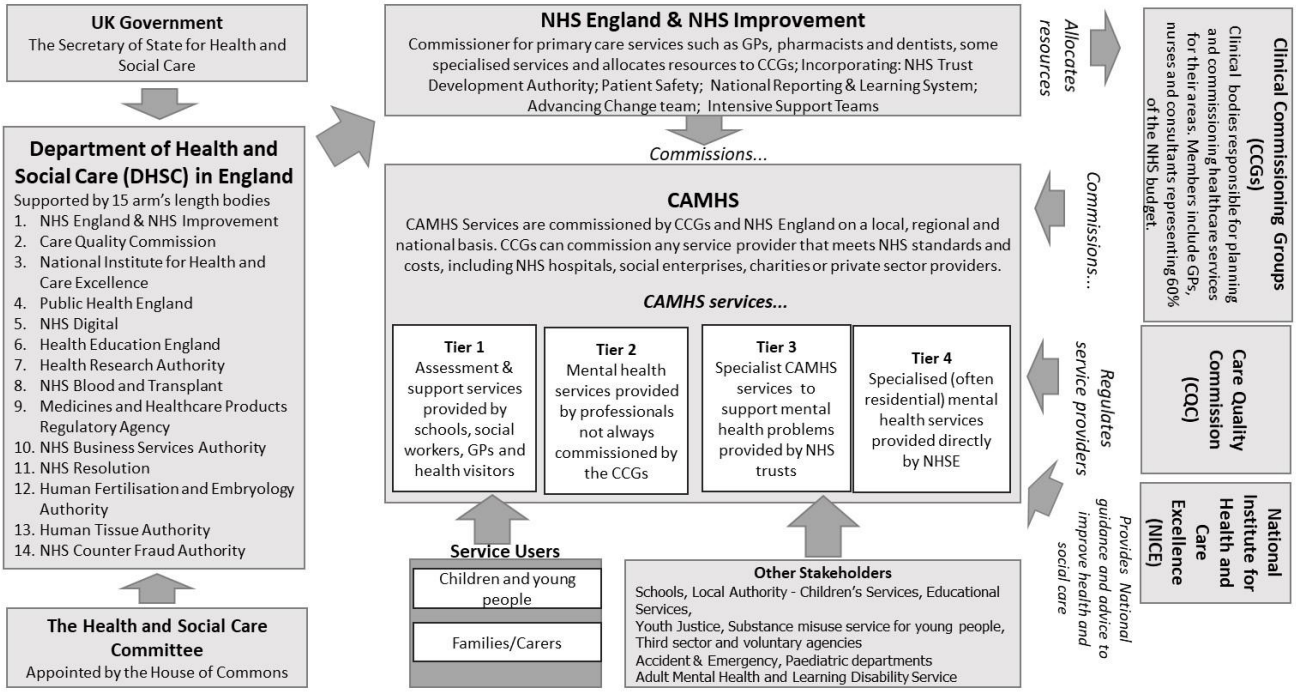
Formalised performance measurement within the NHS commenced in 1983 following the Griffith Report (see DHSS 1983). It is based on a 'three-pronged strategy', which incorporates (i) guidance, (ii) monitoring, and (iii) response. The *guidance* function is intended to transmit policy objectives to health practitioners and front-line clinicians in a meaningful fashion. Utilising support from the Health & Social Care Information Centre (HSCIC), which provides CCGs with necessary information and data analytics, a service framework under the Clinical Commissioning Group Outcomes Indicator Set (CCG OIS) articulates clear expectations of what CCGs should attain in terms of healthcare service quality and associated outcomes in areas such as patient throughput and waiting times. The *monitoring* function involves collection and analysis of information on whether guidance has been followed and targets have been fulfilled, the objective being to provide stakeholders with a balanced and objective view of performance. Monitoring involves governance and utilisation of the NHS's performance assessment framework (see NHS 2014). Finally, the *response* function is intended to stimulate appropriate remedial actions when performance problems are brought to light. Response also

seeks to act upon opportunities for performance improvement, for leveraging change, and for promoting continuous improvement even when satisfactory performance has been secured.

3.2 The case study

As the literature review revealed insufficient content to enable us to theorise about the phenomenon under investigation, a fine-grained inductive case study was adopted as the research approach (Barratt *et al*. 2011). The case is set within CAMHS, a complex multi-stakeholder organisation operating within the NHS. Figure 1 illustrates CAMHS showing a complex set of stakeholders co-working across the organisation's four service tiers.

FIGURE 1: CAMHS Complex Stakeholders Co-working



The *unit of analysis* focuses on daily operations of CAMHS and how participants use and are impacted by PMM within their daily routines. Data were acquired from multiple exploratory interviews with CAMHS stakeholders, augmented with a review of publicly available policy documents published by key CAMHS stakeholders (e.g., House of Commons 2014, 2017; NHS England 2015; CQC 2017). Each of the interviews lasted between 60 and 90 minutes. The interview protocol consisted of seven core questions all drawn from or influenced by the literature (Appendix A).

3.3 The interviews

Two pilot interviews were conducted to ensure that the interview protocols were able to facilitate the collection of accurate and relevant data. Feedback received was then utilised to make minor revisions to the questions. On completion of the pilot, a total of 16 functionally diverse CAMHS stakeholders involved in the four tiers of CAMHS services were selected using non-random purposive sampling and interviewed (Table 1). The interviews were conducted in October 2019. To mitigate the possibility of unrepresentative themes, the interviewees represented a mix of NHS layers (Doheny 2015) consisting of nine different NHS Trusts, one local authority and a service provider. The interviewees were also drawn from different operational, health and service units across various levels of CAMHS service provision

ranging from a divisional director to an educational needs coordinator. Drawing the research data from such a wide group allowed us to glean insights into PMM implications emanating from the intricate and sometimes contradictory service expectations of the various arms of CAMHS, NHS England, NHS Trusts, the Clinical Commissioning Groups (CCGs) and regulatory bodies such as the National Institute for Health and Care Excellence (NICE) and the Care Quality Commission (CQC).

TABLE 1: Interviewees involved in the study

Interviewees	Job Title	Organisation
Interviewee 1	Service Manager	NHS Trust 'A',
Interviewee 2	Divisional Director Children and Families	NHS Trust 'A'
Interviewee 3	Finance Director	NHS Trust 'A'
Interviewee 4	Commissioning and Strategy Manager	Local Authority 'X'
Interviewee 5	Medical Director	NHS Trust 'A'
Interviewee 6	Clinical Director	NHS Trust 'A'
Interviewee 7	Safeguarding Lead	NHS Trust 'B'
Interviewee 8	Integrative Counsellor	NHS Trust 'C'
Interviewee 9	Delegated Specialist Commissioning Consultant	NHS Trust 'D'
Interviewee 10	Caseload Manager – Family Intervention	NHS Trust 'E'
Interviewee 11	CAMHS Practitioner (Learning Disability and Neuro-development)	NHS Trust 'F'
Interviewee 12	Senior Social Worker	NHS Trust 'G'
Interviewee 13	National Programme Manager – Support Services	NHS Trust 'H'
Interviewee 14	Paediatric Physiotherapist	NHS Trust 'D'
Interviewee 15	Special Educational Needs Coordinator	NHS Trust 'I'
Interviewee 16	Service Manager	Service provider

In this research, although our data are based on 16 interviews, after 12 interviews we did not gain any significant additional insights (aside from confirming our findings from the first 12 interviews), as no further nodes or sub-categories were emerging (see data analysis section below). Studies by Holsti (1969) and Lincoln and Guba (1985) suggest that a number of factors such as the level of detail in precision with responses and also the essence of the data should be taken into consideration when determining the appropriate sample number of interviews. More specifically, Lincoln and Guba (1985, p. 235) suggest that "…*a dozen or so interviews, if properly selected, will exhaust most available information; to include as many as twenty will surely reach well beyond the point of redundancy*". The 16 interviews undertaken as part of this study meet this criterion. Ethical considerations and anonymity,

paramount due to the sensitive and emotional nature of CAMHS operations, were maintained at all times (van Den Hoonaard 2003).

3.4 Question design

The questions were designed to prompt the meaningful surfacing of personal experiences and understanding of actual behaviours. The first question was influenced by Baars *et al*. (2010) emphasising the heterogeneity of performance management. While the second question focused on congruence in stakeholder expectations (see Neely *et al*. 2002; Bititci 2015), the third question focused on how targets were set and how performance is measured (Henri 2006). The fourth question focused on current challenges and was largely influenced by the earlier work of Melnyk *et al*. (2014) concerned with the functions, defining elements and challenges of performance measures. While the fifth question focused on performance management and its broader significance for service provision (Melnyk *et al*. 2014), the sixth question sought to understand factors influencing performance, its measurement, and its management within CAMHS (Henri 2006). The final question focused on exploring how PMM could be improved (Bond 1999; Bourne *et al*. 2002; Henri 2006; Elg *et al*. 2013).

3.5 Data analysis

We undertook data analysis in a manner consistent with content analysis (Krippendorf 1980; McTavish and Pirro 1990; Hsieh and Shannon 2005; Elo and Kyngäs 2008; Vaismoradi *et al*. 2013). Content analysis is widely recognised as a flexible method of undertaking social research because of its non-prescriptive nature. For example, text can be drawn from documents, transcripts of interviews or other text generated from research. Furthermore, the selection and development of codes and themes remain largely discretional to the judgement of the researcher engaged in the study (Webley 2010). Using content analysis, scholars are able to examine textual narratives analytically thereby undertaking analysis of not only the meaning of specific words or concepts, but also establish how these words or concepts are related (Vaismoradi *et al*. 2013). In doing so, content analysis allows for scholars are able to unpack new patterns of insights. Broadly speaking, drawing from Krippendorf (1980) and Vaismoradi *et al*. (2013), we adopted the following five steps to content analysis.

The first step involved '*Concept identification'*. Here, the analysis began with the formation of parent nodes based on the interview questions. Sub-categories were then created under each node to represent the main topics discussed, using terms actually used by the participants in the interview. For example, the first node was '*Current performance measurement practices'*; under this, two topics were created - '*importance*' and '*stakeholder expectations*'. Interviewees' responses on each topic were then coded using verbatim quotations from the transcripts. The second step involved '*Definition of*

relationship types'. Here, emergent themes were identified iteratively (leading to the development of progressively different analytical templates), linking topics based on relatedness to each other; revising topics as more became apparent upon further reading of the transcripts; coding the data again under the new/revised topics, and searching for new themes. A second researcher then checked the coding. The themes that emerged represent diverse respondents' interpretations as well as sources of ambiguity in PMM. The third step of content analysis involved '*Textual coding with reference to concept identification and relationship definition*'. Here, cross-validation was undertaken using literature (developed during the literature review) and various policy documents (see for example, Roth *et al*. 2011; NHS 2014; Department of Health 1999, 2015), the purpose being to augment data analysis and explore contextual commonalities and differences expressed by the various stakeholders deemed relevant to the research question. This process provided a further opportunity for the authors to form a deeper understanding of the valuable nature of the phenomena under exploration. Further details of the process adopted are elaborated in greater detail in Hyland *et al*. (2003). As part of the fourth step ('*Statement coding'*), all transcripts were transposed into a Microsoft Excel database before uploading them to NVivo in order to ensure textual structure (Miles and Huberman 1984, p. 216). The use of NVivo (Version 10) for textual coding was driven by a need to facilitate a deeper articulation of data strings and interrelationships (Leech and Onwuegbuzie 2011; Petro *et al*. 2020). As a tool, NVivo (see Welsh 2002; Bazeley and Jackson 2013) offers efficiency and robustness in the analysis of qualitative data, also enabling deeper articulation of data strings and interrelationships than would be visible to manual coders (Basit 2003). Following the transposing of the transcripts/upload to NVivo, the final step ('*Graphic display and analysis of the resulting'*) was undertaken. Here, tabular and graphical summaries of all outputs (where necessary) from the initial step were collated. The final stage of the analysis involved detailed interpretation and narration of the results.

4. FINDINGS

The paper set out to explore the sources and implications of ambiguity in performance measurement systems and performance management practices of complex multi-stakeholder organisations. Having collected and analysed the data as explained in the previous section, a number of themes emerged under which sources of ambiguity could be described. In the following sub-section these themes and their implications are discussed in greater detail.

4.1 Fitness for purpose of the performance measurement and management systems

In the context of this study, *'fitness for purpose'* refers to how PMM is perceived in terms of being of an appropriate quality in terms of the situation it is to be used (Klobas 1995; Whitfield 2012). In other

words, *'fitness for purpose'* refers to the extent to which the PMM is able to fulfil the reason for its use. Generally, stakeholder perceptions of *'fitness for purpose'* are driven largely by the extent to which stakeholders perceive that the specific PMM will be of benefit to them (Whitfield 2012).

Views expressed by different CAMHS stakeholders demonstrate a manifestation of ambiguity in relation to the purpose of PMS. For example, Interviewee 1 thought that:

> "*… the purpose [of measurement] is not clear…they seem more interested in output…the coming ins-and outs…our unit is focused on outcomes"*

Interviewee 11 further attested that:

> "*…we don't have high-quality data collection, we have data systems that have not been fit for purpose and the quality of the data going into them is not monitored…".*

Contextualised within the Experience of Services Questionnaire (ESQ), developed by the Commission for Health Improvement to measure satisfaction of CAMHS users as against quality of health outcomes (CHI 2002), Interviewee 2 thought that PMSs were being utilised as a:

> "*report card or score card*…", the real purpose being "*... to allocate funds and resources*".

In a similar vein, Interviewee 16 suggested that the purpose of PMS was predominantly to:

> "*punish and apply penalties against under- or non-performing healthcare units*".

Interviewee 7 thought that performance measures were not being:

> "*…used to enhance services, [but were] more justifying tools*".

Overall, Interviewee 11 thought that its use was:

> "*…short-sighted*".

It appears that, although the ESQ provides information that can be utilised in enhancing service quality, the reality is that user satisfaction does not imply improvements in quality of health outcomes; nor does

it necessarily lead to effective service delivery (Maguire and Ojiako 2007; Ojiako *et al*. 2010; Moran *et al*. 2012). To complicate matters, from 2010, NHS performance priorities have been expressed through three different healthcare outcome frameworks: (i) Adult Social Care Outcomes Framework from local authorities; (ii) Public Health Outcomes Framework from Public Health England, and (iii) the NHS Outcomes Framework from NHS England. Increasing emphasis on the need for the NHS to align these frameworks has meant that, over time, individual measures have been shared, leading to an increase in ambiguity surrounding the purpose of PMM.

Another context that led to fitness for purpose as a manifestation of ambiguity to be explored related to the requirement for CAMHS to collect information (for insurance purposes) which was predominantly financial, although its main service focus is on qualitative societal benefits linked to community-based challenges, e.g., social stigma. Of interest to this research is a view expressed by a clinical director (Interviewee 6) who suggested that the purpose of performance measures was:

> *"…to bring competition to the NHS, particularly in the non-mainstream NHS providers, similar to opening up markets in the acute sector".*

The different perspectives or priorities of different stakeholders is a key source of ambiguity that surrounds the purpose of PMS. Such ambiguity can lead to a reduction in trust among stakeholders, thus making it more challenging to create consensus and common ground in terms of the purpose of PMS. It can also lead to stakeholder passivity and indecision (Denis *et al*. 2011) or lead to the development of 'false consensus' whereby stakeholders incorrectly form the opinion that they are at consensus, thereby taking action which in fact, leads to greater disharmony as relates to the purpose of the PMS. The use of aggregated '*summary scores'*, which provided incomplete or even irrelevant information, appeared to be another source of this ambiguity, as exemplified by Interviewee 14's view that:

> "*performance is measured using summary scores. These measures usually represent performance areas of priority interest to policy makers. The problem to me with this is that in some circumstances, poor performance in areas that may not necessarily be of policy priority does not reflect in overall performance measures while in reality they may have a domino effect on healthcare provision*".

This position was reiterated by other respondents such as Interviewee 5 who, in expressing concern over the impact of aggregation on CAMHS operational effectiveness, stated that:

"*…performance is measured badly as there is a tendency to measure relatively simple things that are target-driven but not good at measuring the outcomes (i.e., narrowly focused)… it is also complex and so there [is]a tendency to collate composite data and measure higher-level proxy measures such as discharge rates*".

In the same vein, Interviewee 1 opined that the aggregated performance measures:

"…we use are meaningless to clinicians in terms of service improvement".

Ostensibly, aggregated measures may be seen as beneficial in terms of comparing the quality of service provision. For example, aggregated measures allow for performance benchmarking (which, in the case of CAMHS, is conducted by the NHS Benchmarking Network), target setting, accountability and transparency (Morton *et al*. 2010). Aggregation entails the recording, collation and summarisation of CAMHS interventions and can be in a number of different formats which includes Shewhart charts (Winkel and Zhang 2007), funnel plots (Hart *et al*. 2008) and tabulations (Morton *et al*. 2010).

Aggregation will involve selecting performance indicators (for example, age), grouping these indicators into domains (for example, social characteristics), identifying suitable analytical levels (for example, national geographical variations), and then undertaking coding of the data (MacDonald 2002; Morton *et al*. 2010). Aggregation will be undertaken by most CAMHS stakeholders such as the National Institute for Health and Care Excellence (NICE) and the Care Quality Commission (CQC) using standardised outcome measures completed by CAMHS users, parents, care givers and clinicians. However, a major disadvantage in the use of aggregated data is that they generally lack clinical utility. For example, such measures may exclude complex (and therefore relatively anomalous) care requirements.

In sum, the main sources of this ambiguity were: (i) Differences (that is, heterogeneity) among stakeholders on the actual purpose of PMM particularly as it relates to healthcare outcomes, and (ii) aggregated reporting of performance leading to impressions that the performance information is incomplete and/or irrelevant.

Finding 1 – In performance measurement and management systems of complex multi-stakeholder organisations ambiguity manifests itself as a *question over the fitness for purpose of the performance measurement and management systems*. The sources of this ambiguity appear to be: (a) the different perspectives or priorities of different stakeholders as relates to the actual purpose of PMM, and (b)

aggregated reporting of performance leading to impressions that performance information is incomplete and/or irrelevant.

4.2 Setting measures, priorities and targets: Responsibility v. Accountability

The question of responsibilities for setting measures, priorities and targets touches on ***who decides what to measure*** and focuses on establishing the specific role of senior management, external consultant, employees, collaborative in such decisions (Pekkola and Ukko 2016). In this sense, perceived responsibility for setting performance targets and priorities and the existence of diverse targets from the cascading process emerged as further manifestations of ambiguity.

Generally speaking, our findings suggests that performance measures are being set at a higher level by people who are not really accountable for delivering against these measures, priorities and targets. More specifically, those setting performance measures, priorities and targets were not connected to CAMHS practice or the realities of what actually occurs in the delivery operations, thus creating a disconnect between '*responsibility'* (which broadly speaking refers to duties or obligations to respond to and perform or complete tasks – see Kaler 2002) and '*accountability'* (which broadly speaking refers to duties or obligations to report and give account on events, tasks, and experiences - see Kaler 2002). More specifically, CAMHS stakeholders appeared unsure as to whether performance targets and priorities were set at ministerial level through the DHSC as the primary government department responsible for leading, shaping and funding health and care in England, by the NHS which provides overall national leadership in implementing care quality, providing oversight, and allocating resources to CCGs which, as independent legal entities, are accountable for delivering health services in a particular geographical region, or even by the CAMHS managers. Arguably, all have different interests and the need to set measures, priorities and targets that cater for these different interests can manifest in ambiguity over who holds responsibility for setting the measures, targets and benchmarks. This is observed by Interviewees 14 and 13 who observed not only that:

> *"CAMHS performance targets are set from the centre at ministerial level…*" (Interviewee 14)

But, also that that they are:

> *"…cascaded downwards for interpretation by the CCGs"* (Interviewee 13).

Thus, it appears that there was a general acknowledgement among the stakeholders that the responsibility for setting measures, priorities and targets was at a *higher* (by implication strategic) level. However, what was less clear was whether or not there were clear lines of accountability as, in reality according to Interviewee 2:

> "*performance measures are nationally set but delivered locally*"

Acknowledging the tension between '*responsibility'* and '*accountability'*, Interviewee 13 noted that:

> *"…while some of my colleagues may suggest that these targets are developed through intense negotiation, they really largely emerge from political considerations…the problem, however, is that they can sometimes lead to a situation where certain targets are downplayed, even though they do have a serious or considerable impact upon the local patient care experience"*.

This position also appears supported by Interviewee 7, who suggested that:

> *"…. however, currently, performance measures come from a…. top down approach that appears punitive… [this] means that there is a bit of a struggle to be heard"*.

Ambiguity relating to the responsibly for setting CAMHS performance measures, priorities and targets exists because of the existence of two philosophical approaches to organisational control. One focused on policy delivery (top down organisational control) and the other focused on actual clinical practice (bottom up). For example, in instances where the emphasis is on standardized performance measures associated with a broader range of the most common mental health challenges experienced by CAMHS patients, the responsibility for setting these types of measures is likely to sit with policy makers. On the other hand, a focus on clinical practice will suggest an emphasis on performance measures likely to inform patient outcomes related to the care of a specific patient. The responsibility for setting these types of measures is likely to be that of clinicians. The reality is that CAMHS stakeholder groups (including parents and schools) are unlikely to fully understand CAMHS service access points, pathway process, and the relationships between and among its various tiers. Such ambiguity has an impact on the effectiveness and efficiency of the CAMHS service delivery (as highlighted in a report by the House of Commons (2014)) and has led to new CAMHS initiatives such as Choice and Partnership Approach (CAPA);developed with a view to facilitate more effective care and managed service demand through

stakeholder engagement (Fazel *et al*. 2021). As further noted by Interviewee 12, the impact of a poorly defined pathway to CAMHS referral and follow-up services is that:

> "*…sometimes the children get moved around different teams and by the time the situation is fully understood, it's an emergency*".

Finding 2 – In performance measurement and management systems of complex multi-stakeholder organisations ambiguity manifests itself as *a tension between responsibility and accountability for measures, priorities and targets.* The sources of this ambiguity appear to be: (a) A lack of understanding among the various actors concerning who precisely sets performance measures, priorities and targets, (b) the role of people accountable for delivering against these measures, priorities and targets in the process; and (c) heterogeneity of stakeholders with different performance needs and expectations.

4.3 Interpretation of performance measures

The essence of interpretation is to review data in a manner that ensures the arrival of informed conclusions. In the context of PMM, ambiguity occurs when organisations must contend with multiple interpretations of performance information (Vakkuri and Meklin 2006). When multiple interpretation of performance measures exists, it becomes challenging to assign relevant and appropriate meanings to the measures in a way that ensures that they fully capture the essence of PMM.

An example of the manifestation of these interpretative spaces can be seen in healthcare service delivery, where regularly used terminology such as '*coordination of care'* and '*continuity of care'* suffers from a lack of conceptual clarity among practitioners (El Ansari 2011). The existence of such interpretative spaces leads not only to different and multiple interpretations of performance measures, but also contested perceptions of meaning amongst those stakeholders.

We found evidence in our study to suggest a manifestation of ambiguity in the form of performance measures being open to interpretation. According to Interviewee 4:

> "*The measures are not defined well…, for example a score of 4 means that there is a full complement of services, this could be seen as just the existence of certain services but does not address issues such as accessibility, or appropriateness and they would mean different things to different people and, if two services scored the same number, this does not necessarily mean that they have the same level of service; there is very little clarity on what is expected and how one would meet the expectations*".

Not robustly defining performance measures meant that:

> *"… measures becomes meaningless without the interpretation of measurement in a helpful and constructive way to inform service delivery…"* (Interviewee 1).

Concerns that performance measures were open to interpretation were also reiterated by Interviewee 13 who suggested that a lack of tightly defined performance measures created a situation whereby:

> "*…although there are a number of performance-related surveys available to NHS clinicians, that focus on patient experiences, there is a question of focus… we really don't have a lot of useful performance measures*".

It appears that the sources of this ambiguity may have emanated from a lack of understanding among CAMHS stakeholders on how performance measures translate into successful delivery of healthcare outcomes. Thus, for example, Interviewee 2 noted that:

> *"… for children in CAMHS … their length of treatment may vary and actual outcomes may not be obvious in some cases until they have reached adulthood…it is also difficult to demonstrate which service contribution in the CAMHS partnership resulted in a particular performance outcome...."*.

Interviewee 2 further cited a lack of precise quality standards and guidelines on counselling as an example, highlighting the current CAMHS Tier 1 interventions, which identified school counselling as a care pathway. While there appears to be evidence to support its effectiveness, it was generally difficult to ascertain whether counselling actually delivered any measurable care outcomes. Roth *et al*. (2011) suggest that this could be due to a lack of clarity on its precise competencies, which has resulted in considerable variation in practice.

Finding 3 – In performance measurement and management systems of complex multi-stakeholder organisations ambiguity manifests itself as *questions over the interpretation of performance measures, priorities and targets.* The sources of this ambiguity appear to be: (a) The existence of 'interpretative

spaces' in PMM practice and, (b) heterogeneity of stakeholders with different performance needs and expectations; thus measures, priorities and targets.

4.4 Value of performance measurement systems (PMS)

It is evident, so far, that in complex multi-stakeholder organisations, ambiguity is manifested in three different ways: Fitness for purpose, responsibilities and interpretation. The complex interplay between these three ambiguities, however, raises the question over the *value of PMS.* For example, Bititci (2015) suggests that *"we need to develop performance measurement systems that people value and want to use"*. This goes to the heart of whether performance measurement actually matters (Melnyk *et al*. 2014). The value of any performance measurement systems (PMS) is to be assessed relative to the comparative, personal, and situational utility or usefulness. In this manner, the '*Value'* of PMS is related to its '*fitness for purpose'*. Thus, in this context, the value of performance measurement was questioned by Interviewee 7 who noted that:

> "*The sad situation is that the results of these performance measures are not being used in my view to forward an agenda for outcome-based change in service performance, Personally, I think that our assessment of performance should be based primarily on the patient's voice. I think this should be what really counts. I am not sure it always does*".

We thus construe the *value* of PMS as representing our fourth and final manifestation of ambiguity. Performance is widely measured in mental healthcare service operations as a means of identifying cases where care is not translating into desired outcomes or stimulating quality of care improvements. However, as Fuggle (2015) points out, the use of standard (aggregated) measures has resulted in fewer than half of CAMHS cases being adequately measured for outcome performance. According to Garland *et al*. (2003), this may be because of a perception among clinicians that these measures are of no real value to health outcomes. More specifically, we found that the perceived low value of performance measures among CAMHS clinicians was being driven by a feeling that:

> "*CAMHS managers and clinicians have had very limited involvement in the development of strategy related to performance*" (Interviewee 7).

While it appears logical, to a certain extent, that those with financial responsibility to deliver CAMHS services or those who use its services are best placed to determine how its performance is measured, the reality suggests that:

> "*We find situations where the Strategic Health Authority (SHA) is more interested in measuring continuous quality improvement indicators relating to daily patient experience. On the other hand, at CCG level, there could be a general interest in measuring the care profiles of different wards and also nursing behaviour*" (Interviewee 11).

It appears that limiting clinician input in healthcare outcome performance measures is likely to degrade the comprehensiveness of CAMHS services. Thus, in much the same way as tensions arose over ambiguity relating to responsibilities for setting measures, priorities and targets, we see tensions arising over the strategic versus operational use of performance measures as a source of ambiguity, which is manifested as the value of PMS.

Finding 4 - In performance measurement and management systems of complex multi-stakeholder organisations ambiguity manifests itself as questions over the value of performance measurement systems (PMS). The sources of this ambiguity appear to be: (a) Ambiguity over the fitness for purpose of performance measurement systems and (b) tension over strategic versus operational use of performance measures, with a clear tendency towards strategic use.

4.5 Competition amongst stakeholders

As an operating arm within the systems of a complex multi-stakeholder organisation, CAMHS maintains a stakeholder base which is characterised by multiplicity, complexity and diversity. For example, at the political level, CAMHS stakeholders includes the government (through the House of Commons and its various sub-committees), and the DHSC. From an operational perspective, stakeholders include NHS England (and NHS Trusts) and the CQC, while from a user perspective, stakeholders include specific users and care provides including school counsellors and community care professionals. Other stakeholders include regulators such as NICE, the CQC and the HSCIC and charities such as The Children's Society and Mind. All these stakeholders have aims, objectives and aspirations which may be competing.

In our study, we observed the emergence of competing demands by a heterogeneous group of stakeholders with different views on the purpose of performance measurement, augmented by

aggregated reporting of performance, and tensions between strategic versus operational as well as local versus national use of PMS. This is further complicated by the lack of transparency between service delivery and performance outcomes through complex interaction, resulting in questions about the overall value of the PMS and its fitness for purpose. A view expressed by a number of interviewees is that the core source of these ambiguities is the feeling of competition and lack of collaborative behaviours among various CAMHS stakeholders. Interviewee 6 particularly highlighted that the purpose of performance measures was *"…to bring competition to the NHS…".* Another suggested that:

> *"Collaboration, engagement, and involvement of clinicians in developing understanding and a sense of purpose"* (Interviewee 4).

This point was reinforced by Interviewee 12 who proposed the need for:

> *"…a range of collaborative engagements with CAMHS commissioners, the DHSC, Strategic Health Authorities etc...".*

Finding 5 – In performance measurement and management systems of complex multi-stakeholder organisations ambiguity manifests itself as *competition amongst stakeholders*. The sources of this ambiguity appear to be: (a) Ambiguity over the purpose of PMS; (b) lack of awareness of each stakeholder's priorities; (c) ambiguity over the interpretation of performance measures, targets and priorities; and (d) tensions over strategic *versus* operational and universal *versus* local uses of performance measures.

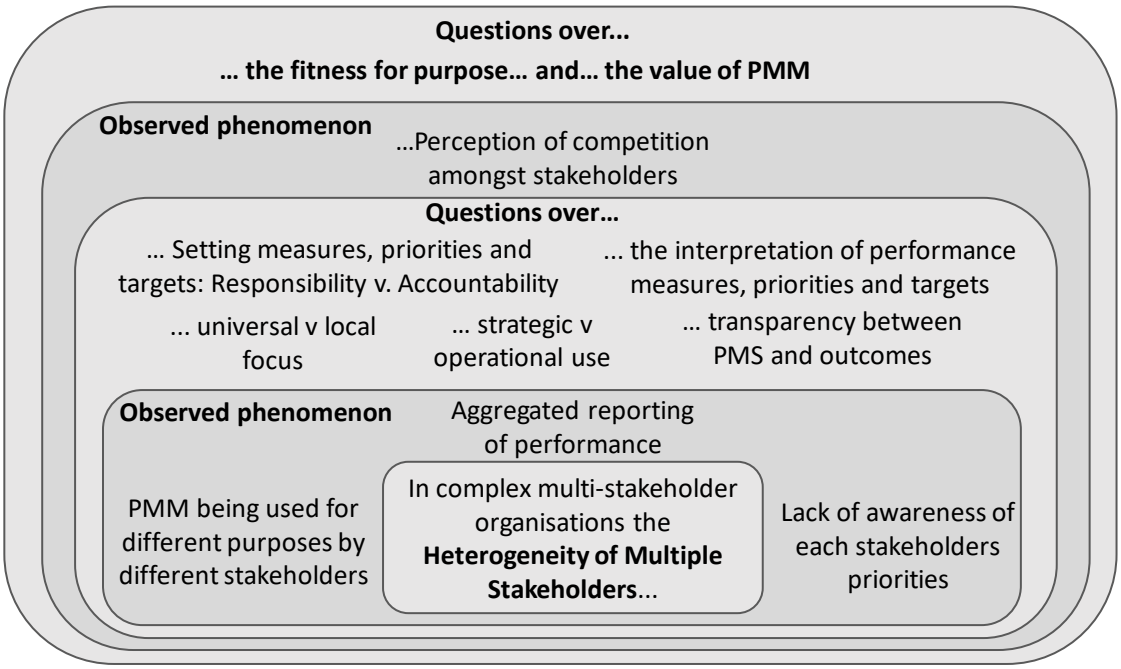
5. DISCUSSION

Our findings bring to the surface a number of factors that create ambiguities in the PMM practices of complex multi-stakeholder organisations. An in-depth analysis of the findings reveals that these factors interact in complex ways that raise questions over the value of PMM in such organisations, as illustrated in Figure 2, albeit in a simplified manner.

The root cause of these ambiguities appears to be the heterogeneity of multiple stakeholders (Ojiako *et al*. 2010). This, in turn, leads to a number of phenomena (such as aggregate reporting of performance, PMM being used for different purposes by different stakeholders and lack of awareness of each stakeholder's priorities). The outcome is a further fuelling of ambiguities over responsibilities for setting measures, priorities and targets, interpretation of these measures, priorities and targets, relevance

of measures to performance outcomes, and tensions between operational and strategic uses of PMM. These ambiguities aggregate to create the perception that stakeholders are in competition with one another, which raises further questions over the fitness for purpose and, by implication, the value of PMM.

FIGURE 2: Sources and manifestation of ambiguity



5.1 Purpose of performance measurement systems

The purpose of measurement is monitoring, legitimising, creating focus and learning and improvement (Henri 2006). Examining the purpose of PMS focuses our attention on the motivation or reasons for its implementation and use.

Halachmi (2005; p. 262) note that we measure performance for two reasons; for accountability (which focuses on the question of whether '*was it done right?*') or for improved productivity (which focuses on the question of '*was the right thing done?*). However, the literature suggests that, over the years, the purpose of PMS has evolved (Bititci *et al*. 2012) from productivity management through to budgetary and, later, management control, to a current emphasis on the accumulation of multiple purposes, which includes strategic planning (Johnston and Pongatichat 2008), learning (Bititci *et al*. 2012), employee engagement (Smith and Bititci 2017), early warning detection and diagnostic tools

(Bond 1999), evaluation, control, budgeting, motivation, promotion, celebration, learning, and improvement (Behn 2003), monitoring, legitimising, creating focus, learning and improvement (Henri 2006). This suggests that that PMS can be put to a range of different purposes (Bovaird 2005). Despite this, it is clear that the purpose of PMS significantly influences its effectiveness (Henri 2006; Vakkuri and Meklin 2006).

Our findings suggest that, in complex multi-stakeholder organisations, the purpose of PMS is not clear. For example, at an *executive managerial* level, PMM was seen as fulfilling an efficiency purpose, where it was used to create competition and drive efficiencies, focusing largely on financial outcomes. In contrast, at an *operational* level, there was greater emphasis on effectiveness, thereby implying a service improvement purpose. Our findings also suggest that performance measurement is being channelled towards resource allocation to different operational units. In effect, in complex multi-stakeholder organisations, the purpose of PMM appears to focus on establishing, maintaining and consolidating the power of key stakeholder groups (Hammad *et al*. 2020). Two such stakeholders are the National Institute for Health and Care Excellence (NICE) which is responsible for articulating and developing guidelines and standards of care quality and the Care Quality Commission (CQC), whereby part of its role (in terms of accountability for delivering health services within a specific region) also entails the legal responsibility to ensure that services are at an appropriate level of safety and quality.

Our conclusion is that ambiguity in terms of the *purpose* of PMS has also arisen due to the multiplicity and heterogeneity of stakeholders who largely maintain shifting and contradictory interpretations of the purpose of PMM. This raises further questions, such as what measures should be employed (i.e., design of PMS), and whether measures are being set and reported at the right level (i.e., use of PMS). Put into perspective, studies by Ham *et al*. (2015) found that there are well over 1500 measures that could be utilised to report on performance, of which approximately 200 were relevant to CAMHS. To summate it appears that the heterogeneity and multiplicity of stakeholders, together with the power relationship between these stakeholders, creates confusion over the purpose of PMM. It appears that some individual stakeholders do not know what they want from PMM. In addition, even when individual stakeholders have a clearly articulated the purpose for PMM, their interests conflict with other stakeholders' priorities. These two sources create an ambiguity in relation to the purpose of the entire PMM system.

5.2 Design of performance measurement systems

The primary focus of PMS design is to articulate how PMS are to be conceived (Ravelomanantsoa *et al*. 2019), what is measured (Neely *et al*. 2005), how PMS effectiveness is evaluated and how high-level organisational goals and objectives are implemented (deployed) throughout the organisation to ensure

better PMM alignment (Bourne *et al*. 2000). '*Design'* alongside '*Review'*, '*Implementation'* and '*Use'* are phases within the PMS development lifecycle (see Bourne *et al*. 2000; Liu *et al*. 2018). The design of PMS entails (i) the identification of the primary performance objectives to be measured and (ii) actually undertaking the design of those measures (Bourne *et al*. 2000). The maturity of the design of PMS is assessed on a continuum that ranges from a few to completely established measures (Wettstein and Kueng 2002).

The literature suggests that the design of PMS should focus on the overall performance objectives of the organisation (Bourne *et al*. 2000). It is expected that a well-designed PMS should have an explicit purpose; be derived from strategy; clearly deploy organisational goals and objectives ensuring alignment of the organisation with its overall priorities; balance efficiency *versus* effectiveness as well as qualitative *versus* quantitative indicators; drive improvement; and serve diagnostic or legitimacy-seeking purposes (Neely *et al*. 1995, 2000, 2005; Henri 2006; Vakkuri and Meklin 2006; Melnyk *et al*. 2014).

A parallel debate is concerned with whether the PMS should be designed for strategic or operational purposes (Henri 2006; Johnston and Pongatichat 2008). It is suggested that a PMS that is designed for strategic purposes will: Evaluate resource performance; facilitate and enhance stakeholder communication; and, facilitate the identification of performance gaps and identification of avenues for strategic intervention (Melnyk *et al*. 2004). In contrast, a PMS designed for operational purposes would provide policy deployment, goal alignment and diagnostic control as well as driving operational improvement. This debate naturally assumes that a PMS is purposefully designed. However, it is widely understood that, in many cases, a PMS emerges over time through an organisation's response to external or internal stimuli; in which case it may not be clear who was responsible for designing the PMS and why certain measures actually exist (Bititci 2015).

Our findings suggest that, in complex multi-stakeholder organisations, different stakeholders use PMS for different purposes, including diagnostic, monitoring and legitimising purposes. PMS use high level measures focused on national progress targets such as patient experiences, waiting times and rate of hospital-acquired infections, which means that they are designed in a manner that makes them suitable for strategic use (e.g., resource allocation and benchmarking – see Nagendran *et al*. 2012). However, they are not particularly useful for operational purposes because high level measures lack the appropriate level of specificity, granularity and sensitivity that is able to identify potential risks at the point of care (Nagendran *et al*. 2012). Thus, PMS design does not appear fit for operational use (Edwards 2015).

The design of PMS also seemed to emphasise efficiency as against effectiveness. Again, even on occasions where effectiveness measures were employed, because of the nature of PMS design, reporting could only realistically be undertaken at a very high level, to which operational managers responsible

for service delivery were unable to relate. It was also unclear not only who had specific responsibility for the design of a PMS but also how frequently the PMS is reviewed, thus suggesting that PMS design is emergent rather than purposeful.

Our conclusion is that the lack of clarity over purpose, emphasis on strategic use of measures, responsibility over the design and review of the PMS and the emergent nature of its design produce a PMS that is confusing and not useful at either strategic or operational levels, thus, we opine that in complex multi-stakeholder organisations, the design of the PMS emerges organically through the interactions of different stakeholders over time rather than being designed with a clear and shared purpose. The root cause of this appears to be the contradictory interests and priorities of multiple stakeholders and the absence of a purposeful process for designing and reviewing the PMS. We also contend that in complex multi-stakeholder organisations, ambiguity over the appropriate level of specificity, granularity and sensitivity of PMS measures has resulted in a PMS that is deemed not useful and thus not valued.

5.3 Implementation (deployment) of PMS

Implementation is defined by Bourne *et al*. (2000) as "…*the phase in which systems and procedures are put in place to collect and process the data that enable the measurements to be made regularly*" (p. 758). Studies by Bourne *et al*. (2002) identified seven factors that influence the outcome of PMS implementation; these are (i) top management commitment, (ii) well-articulated measures, (iii) facilitation, (iv) required effort, (v) ease of data accessibility, (vi) measurement consequences, and (vii) strategic overtake.

The literature on PMS *implementation* largely suggests the need for the PMS to be successfully deployed across a wide range of different organisational levels (Bourne *et al*. 2000, 2002; Bourne 2005; Bititci *et al*. 2005; Bracci *et al*. 2017). Although the literature suggests that PMS implementation is largely a simple and mechanistic process which can be managed with traditional project management methods (Bourne *et al*. 2000), it also suggests that, in complex multi-stakeholder organisations, it is unlikely that well-articulated and theoretically focused frameworks (such as balanced scorecard) would be *appropriate* for the capturing of the entire spectrum of the performance needs of the organisation (Vakkuri and Meklin 2006).

Our findings suggest that there were multiple and different service standards, guidelines and performance priorities in existence coming from different stakeholders. In addition, there was limited engagement between those setting performance priorities (organisational goals) and those responsible for delivering the actual service. Here, the existence of myriad performance priorities creates a degree

of confusion regarding what the organisation is trying to achieve with PMM and how the deployment of a specific PMS could support the achievement of desired organisational goals (outcomes).

Our conclusion is that setting performance measures at a higher level (beyond the operations level), and not proactively ensuring engagement between those setting performance priorities (organisational goals) and those responsible for delivering the actual service, results not only in an inability to identify critical service delivery areas, but also in an inability to deploy and implement a PMS that ensures the desired organisational goals were achieved. In effect, the deployment of a PMS appears to focus on compliance monitoring rather than performance improvements. Thus, in complex multi-stakeholder organisations the ambiguity over the purpose of the PMS, together with the failure to achieve proactive dialogue between those who set measures and priorities and those responsible for service delivery, results in its ineffective deployment.

5.4 Use of PMS - balance between technical and social controls

The 'use' of PMS refers to the different roles these systems perform within organisations. The traditional view of PMS use was framed on the notion of '*dual role of controls'* espoused by Tessier and Otley (2012), the essence of control being to ensure that "…*the organisation does what the management wants done*" (Rotch 1993, p. 191). The notion of '*dual role of controls'* of performance has evolved over the years, from a traditional perspective which suggested that in dynamic organisations PMS can be used in two different ways (to facilitate and guide managerial decision-making through information provision, or to influence decision-making through the use of incentives (Sprinkle 2003; Ahrens and Chapman 2004)) to a more recent view which construes control as being either focused on *technical* or *social* control (Smith and Bititci 2017).

Reference to *technical controls* within PMM will entail engagement in undertakings that, for example, include the setting of targets. It will also entail the collection, analysis, interpretation, assessment and feedback of information on performance. Reference to *social controls* within PMM focuses on *how* performance measures can be utilised to ensure the effective and efficient management of performance within the organisation. A focus on PMM as *social control* involves examining the use of different management styles. These will range from tightly prescribed command and control styles, which are likely to lead to limited employee commitment, limited autonomy (Carson *et al*. 2007) and non-participation (Poole *et al*. 2001), to participative management styles based on self or unit autonomy. To enhance *participatory decision-making*, Bititci (2015) suggests using the PMS to create a conversation amongst various stakeholders about the performance of the organisation. He argues that, over time, this open and participative conversation directs different stakeholders towards a more coherent PMM framework, a view also supported by Pekkola and Ukko (2016). Smith and Bititci (2017)

go on to emphasise the importance of: (i) *collaboration*, (ii) *participatory decision-making* and (iii) *information sharing* towards achieving a working balance between technical and social controls. In terms of *collaboration*, the strategic management literature has extensively discussed how stakeholder involvement can reduce ambiguity. The message of stakeholder collaboration in PMM has been reiterated not only in the academic literature (Smith and Bititci 2017), but also in key policy documents published over recent years by the UK government (House of Commons 2017).

Our findings did not reveal any evidence of stakeholder collaboration or participatory decision-making. In fact, findings from our study appeared to point to concerns among key stakeholders on the wider value of PMS and concerns that PMS were being predominantly employed as tools for bureaucratic and structural control. A number of the interviewees alluded to a perceived dominance of CAMHS operations by non-clinicians, therein surfacing power differentials between the individual stakeholders, exacerbated by limited efforts towards collaborative engagement and working. Most interviewees expressed concerns that performance expectations were simply cascaded downwards from managers attempting to interpret political directives. This finding resonates with earlier studies by Chang (2009, 2015) which suggests that performance measurement within the NHS has been largely driven by external political interests and power-play, with the result being a series of poorly balanced and articulated programmes of performance that have hindered the operational effectiveness of the NHS. Hence, there was very little awareness at the operational level of how strategic imperatives were being translated into operational measures. This meant that operations managers had little incentive to 'own' the measures they employed, although there is indirect evidence of ongoing empowerment of operational-level managers through role enhancements and reframing (Macinati *et al*. 2017). The flip side to role reframing is that it can lead to role ambiguity (Niezen and Mathijssen 2014). Furthermore, some respondents had raised concerns that any reframing of their roles may lead to tensions between such a reframed role and their perceived social contract. Such tensions demand sensitive negotiations in order to cater for competing interests (Melnyk *et al*. 2004; Pekkola and Ukko 2016).

In conclusion, our findings suggest that, due to the complexity of the organisation, PMM is treated exclusively as a technical control mechanism with little or no recognition of social control dimensions. Thus, in complex multi-stakeholder organisations, questions over the value of the PMS, together with the non-purposeful/emergent design and ineffective deployment of such a PMS, result in the PMS being used predominantly as a directive technical control system, with little attempt at balancing the social controls towards more collaborative control.

5.5 Unintended consequences of performance measurement

The measurement of performance in organisations has consequences on institutional properties. These consequences stem from the form and manner of the interaction between managers and the PMS. Use of a PMS can lead either to a reinforcement of the status quo or change of rules and logics which have been embedded within the organisation. Such change can either be *intended* or *unintended*. It can also contribute or be detrimental to organisational goals.

The literature notes that while often ignored by scholars (Franco-Santos *et al*. 2012), unintended consequences from PMM are the norm rather than the exception. More often than not, when consequences are unintended, they are further qualified as *dysfunctional* and *perverse* (Franco-Santos and Otley 2018). Examples include poor measurement, misplaced incentives and sanctions, breaches of trust (including gaming and misinterpretation) and the use of self-fulfilling performance measures (Franco-Santos and Otley 2018).

Adcroft and Willis (2005) allude to unintended consequences of PMM which has resulted in "*…the commodification of services which was delivered by an increasingly de-professionalised public sector workforce*" (p. 386). The literature further suggests that organisations that operate under uncertainty are more likely to experience the manifestation of dysfunctional and perverse *unintended* consequences such as gaming (Franco-Santos and Otley 2018). As a result, unintended consequences can contribute or be detrimental to organisational goals. Unintended consequences are most prevalent when PMS are either *designed* in a manner or *used* under conditions that significantly differ from those originally contemplated (Franco-Santos *et al*. 2012). One way of mitigating the impact of such unintended consequences is to define performance measures with discriminant validity in order to accentuate any inter-dependencies or trade-offs that may require attention (Propper and Wilson 2003). Numerous studies conducted within the NHS have identified and categorised dysfunctional, perverse and unintended consequences of the PMS within the NHS against four groups; namely, (i) misdirected sanctions and incentives including complacency, (ii) poor measurement, (iii) politicisation of PMS, and (iv) breaches of trust including gaming and misrepresentation (Kelman and Friedman 2009; Conrad and Uslu 2012; Mannion and Braithwaite 2012). Drawing from Stephens and Ford (2016), other unintended consequences of PMS within the NHS may also include a reduction in operational productivity and the increasing burdening of practitioners with responsibilities. As an example, Doherty *et al*. (2010) observe that an increasing focus on efficiency within CAMHS service provision has resulted in considerable role tensions. Such role tensions can be observed in the reconstruing of ward sisters (following a reform of their role in 1999 (Department of Health 1999)), as practitioner-managers with simultaneous policy implementation and expanded responsibilities, now including full budgetary control of their wards.

Our findings suggest the existence of such unintended consequences of PMM in the form of self-fulfilling, promotional and display-dominant competition among different stakeholders. Amongst the

reasons for such competition is the political framing of the NHS. In fact, Mannion and Braithwaite (2012) specifically discuss the politicisation of the PMS in the NHS, noting that, generally, the value of PMS within the NHS is being devalued, as performance data increasingly becomes a tool for political point scoring by various healthcare stakeholders (with manifested contradictory organisational logics), all jostling for dominance within a highly contested PMM space.

The conclusion that can be drawn from the above is that, within the context of complex multi-stakeholder organisations, difficulties among stakeholders to resolve the multiplicity of their performance goals lead to consequences not originally contemplated in terms of PMM. The most significant consequences are competition and false reporting of performance improvements, which appear detrimental to its service offerings. Taking the above into consideration, we contend that in complex multi-stakeholder organisations, ambiguity over the purpose together with the emergent design, ineffective deployment and directive use of the PMS leads to dysfunctional and unintended consequences not originally intended.

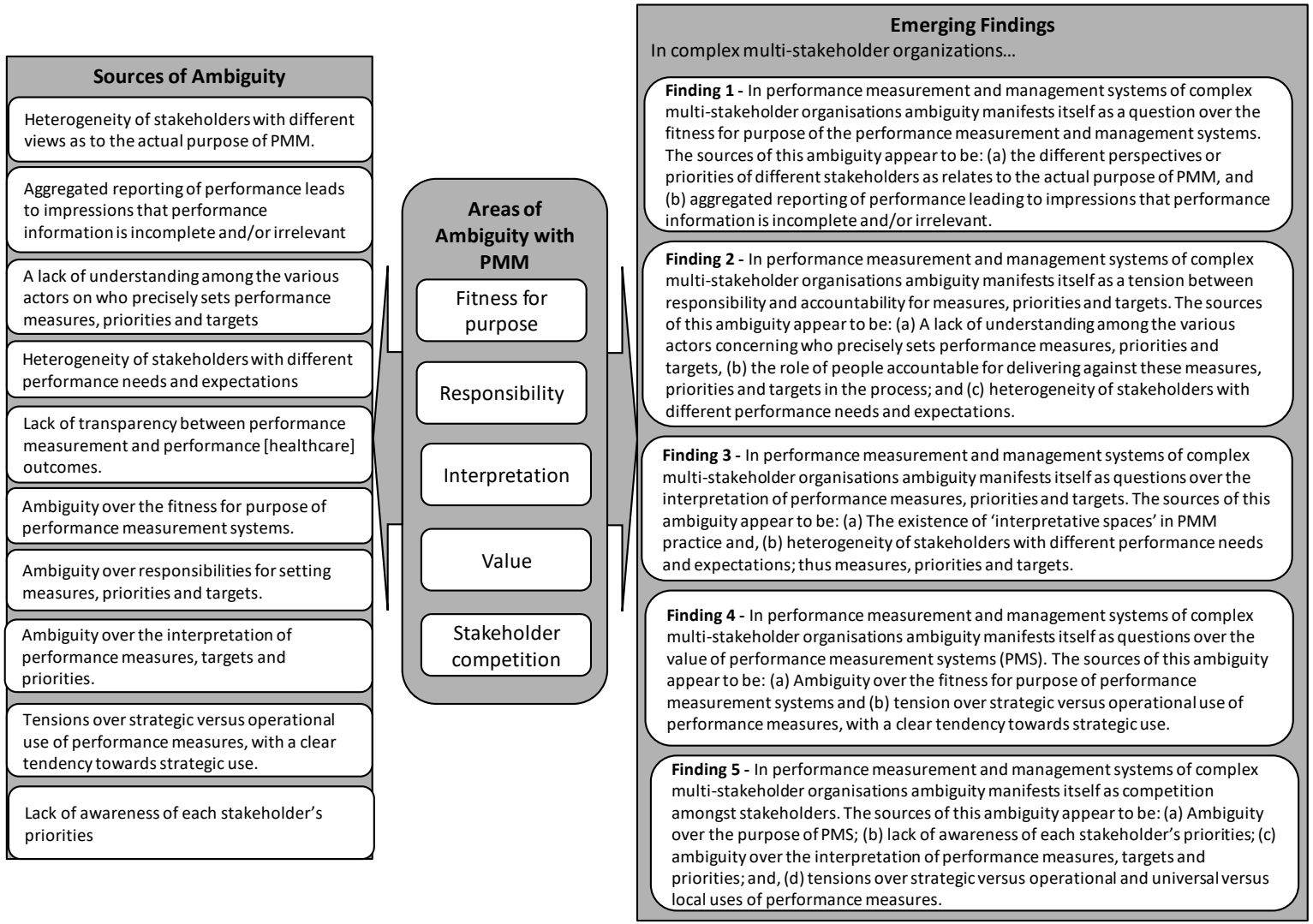
6. CONCLUSIONS

In this paper, we engaged in a fine-grained inductive case study with CAMHS to explore the sources and implications of ambiguity in performance measurement systems and performance management practices of complex multi-stakeholder organisations.

Our findings discursively highlight the manifestation of five areas of ambiguity with PMM namely (i) *Fitness for purpose* (ii) *Responsibility* (iii) *Interpretation* (iv) *Value* and (v) *Stakeholder competition*. Furthermore, in showing the distinct implications of these manifestation of ambiguity for PMM effectiveness and efficiencies, the findings demonstrate the complex interrelationships between various sources and manifestations of ambiguity. In the process, we are able to advance the understanding of how ambiguities (lack of consistency, intentionality, clarity and causality) with PMS and performance management practices can arise in complex multi-stakeholder organisations and their implications. Our findings also reveal several relationships between the complexity of the organisation (i.e., complex multi-stakeholder organisations), design of organisational controls (PMS and performance management practices), and the organisational issues that these can lead to (i.e., manifestation of ambiguity), as well as the sources of these ambiguities. More specifically, while promoting greater technical controls, the nature of complex multi-stakeholder organisations, to some extent, suppresses open, participative and inclusive social controls, thus encouraging a more directive and technical control system to emerge. This consequently discourages collaboration and communication among stakeholders.

Our findings (summarised in Figure 3) have a number of practical implications, which we discuss in the following sections.

FIGURE 3: Summary Findings



6.1 Implications

Our findings provide guidelines for managers. It emerges that, in complex multi-stakeholder organisations, performance measurement is being utilised as a directive technical control system (Bititci 2015) but at a high level for monitoring, legitimising and resource allocation purposes (Henri 2006). Combined with the different priorities of a heterogeneous set of stakeholders, this creates uncertainty and a lack of clarity over the purpose, design and use of the PMS, leading to unintended consequences. This suggests that complex stakeholder organisations should seek to improve the efficiency and effectiveness of their PMM systems in two dimensions. *First*, by engaging their multiple stakeholders in a conversation about the purpose and design implementation of the PMS. The aim here should be to create a single set of organisational priorities, eliminate the multiple, heterogeneous, contradictory and contested organisational logics and ensure effective deployment of priorities and appropriateness of measures. Through a number of initiatives and legislation, the government has sought to achieve these aims. For example, the NHS was reorganised in 2013 following promulgation of the Health and Social Care Act 2012, "*An Act to establish and make provision about a National Health Service Commissioning Board and clinical commissioning groups ... and co-operation between local authorities and commissioners of health care services*". This led to the replacement of Primary Care Trusts (PCTs) with Clinical Commissioning Groups (CCGs).

The creation of CCGs is an outcome of policy changes within healthcare service delivery, which espoused the need to create an internal market able to drive innovation and efficiencies within the NHS. At the foundation of this policy outlook is the need to separate the procurement and delivery of healthcare services. As independent bodies (but accountable to the NHS), CCGs are responsible for making clinically informed decisions on a range of healthcare priorities that impacts upon their local communities. More specifically, they have responsibility to assess local community needs. As budget holders, they are also responsible for purchasing healthcare services on behalf of their communities. They also engage in performance monitoring and evaluation. Among these services are mental health and, more specifically, CAMHS services.

A more recent initiative within the NHS (from 2016) has been the creation of Sustainability and Transformation Partnerships (STPs) between various entities within the NHS, local councils, community groups and charities. These collaborative initiatives are geared towards facilitating both the NHS (through the CCGs) and local councils to be jointly responsible for not only managing various NHS resources (including healthcare professionals), but also delivering locally tailored healthcare services. *Second*, purposeful interventions to achieve a better balance between the social and technical dimensions, in order to move away from directive technical control towards more empowered collaborative control would improve the efficiency and effectiveness of the PMM system. The aim of

this intervention would be to create a participatory and collaborative environment where participants at all levels are engaged in a conversation about the performance of the organisation based on the PMS and feel empowered to take local action based on a clear set of priorities.

6.2 Limitations and suggestions for future research

The main limitations of this study are twofold. *First*, the study is based on an in-depth fine-grained analysis of a single case study. *Second*, although the socio-political context of PMM was commented upon, in-depth analysis of the socially constructed political debate around CAMHS was not explored in great detail in order to focus the study on PMM systems, associated ambiguities and implications. Despite these limitations, the study afforded the authors the opportunity to engage in detailed and intimate conversations with a broad range of stakeholders. This enabled an in-depth exploration and explanation of sources and manifestations of ambiguity in PMM and their complex interactions. Thus, despite the fact that the findings emerged from a single case study, they would apply to most complex multi-stakeholder organisations characterised by stakeholders with potentially multiple, heterogeneous, contradictory and contested priorities, rules, values, practices, beliefs and assumptions.

In terms of future research, our findings reveal a number of relationships between the complexity of the organisation, multiplicity of stakeholders and their power relationships, design and use of organisational controls (i.e., PMS and performance management practices), and the organisational issues that these can lead to. This presents several opportunities to further advance our knowledge in this field. *First*, future studies, may seek to examine in further detail how ambiguity constitutes an actual problem for several of the big PMM tenets (i.e., design; deployment; alignment, etc.). *Second*, through qualitative or quantitative methods, future studies might test our findings and consider the validity of our conclusions in different organisational and cultural settings. *Third*, in terms of stakeholder influence on PMM, our study highlights the importance of the stakeholders and their power relationships in performance measurement and management. Although early research placed some import on stakeholders' influence on PMS design and use (Neely *et al*. 2002) there has been little recent discourse in the field on the need for PMS, and how best to engage a wide range of stakeholders in the design and use of PMS for more effective performance outcomes. *Fourth*, in the context of complex multi-stakeholder organisations, it is clear that future studies in PMM should account for organisational complexity and stakeholder power relationships. This creates the opportunity for using a combination of complexity and stakeholder theories to better explain the PMM phenomenon within complex multi-stakeholder organisations.

In concluding this paper, it has become clear that the PMM theory and our understanding of various phenomena around the subject is largely limited to traditional commercial organisational forms where

there is a clear higher-level stakeholder with clear objectives (e.g., shareholder and wealth creation) and all other stakeholders and their needs and priorities are subjugated to this higher-level stakeholder and their objectives. However, once we move away from this traditional commercial organisational model, and particularly when the diverse priorities and organisational logics of multiple stakeholders together with their dynamic power relationships create the complexities we observe in our case study, our understanding of PMM becomes much more limited and the use of some of the well-known PMS models (such as balanced scorecard) becomes limited at best. As we progress in the twenty-first century, we are seeing even more, different, organisational models emerging, such as autopoietic networks and temporary organisations (Bititci *et al*. 2012) amongst others that we cannot yet imagine. In these we will observe different complexities leading to new ambiguities. Thus, we encourage both researchers and practitioners to explore PMM in the context of these new emerging and potentially more complex organisational forms.

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Appendix A. Interview questions

The interview protocol consisted of the following seven questions:

1. What are the goals of performance measurement and management in your organisation?
2. Are different stakeholders in your organisation likely to have different expectations of performance measurement and management?
3. How are performance targets set and measured in your organisation?... i.e.,
    a. How do you decide what to measure?
    b. How are targets set against these measures?
4. What current challenges does your organisation face in terms of how performance targets are set and measured?... i.e.,
    a. What are the challenges in deciding what to measure?
    b. What are the challenges in setting targets?
5. What is the broader significance of performance measurement and management in terms of service provision in your organisation? [Here we were trying to establish how PMM influenced service provision.]
6. What organisational factors (e.g., structure, responsibilities, accountability, etc.) are likely to influence performance, its measurement and its management within your organisation?
7. How can the process of performance measurement and management be improved?