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Citation for final published version:

Hardyman, Wendy , Kitchener, Martin and Daunt, Kate L. 2019. What matters to me! User conceptions of value in specialist cancer care. *Public Management Review* 21 (11) , pp. 1687-1706. 10.1080/14719037.2019.1619808

Publishers page: <https://doi.org/10.1080/14719037.2019.1619808>

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## **What matters to me! User conceptions of value in specialist cancer care**

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**Abstract**

This paper is the first to apply the services marketing framework of service-dominant logic (S-D logic) to enhance understanding of patient conceptualisations of value in the context of cancer health services. Using data from a case study, the findings reveal that ‘value’ is a temporal, experiential, and complex concept. Three dominant themes are identified as contributing to value creation; access to resources, quality of interactions, and resource use. Although these findings show a broad degree of support for the S-D logic framework, distinctive variations emerge from this application in a health care context.

**Key words:** value-in-use, value co-creation, service-dominant logic, specialist cancer services

## **Introduction**

Within the mounting concern for improving the value of public services, value is typically conceived of in economic terms, with emphasis placed on the costs and outcomes of service interventions. Critics of this approach, in health care and other areas of public services, argue that it reflects ‘payer’ or ‘producer perspectives’ rather than the perceptions of service users regarding what is of most value to them (Porter 2010; Ramsey and Schickedanz 2010; Tilburt et al 2011; Coulter 2012; The Health Foundation 2012; National Voice 2015; Medberg 2016). In response, there have been more general calls for studies of the nature of ‘value’ in public services (Bovaird and Tholstrup 2010; Osborne 2018), and, more specifically, for empirical analyses of value co-creation in micro-level patient encounters (McColl-Kennedy et al 2012; Hardyman et al 2015; Osei-Frimpong et al 2015; Sweeney et al 2015; Joiner and Lusch 2016).

This paper presents the first study to apply an evolving perspective in the services marketing literature, termed service-dominant logic (S-D logic), to analyse how ‘value’ is conceptualised and experienced by individuals within a specialist cancer services hospital in the United Kingdom (UK). S-D logic was chosen as the analytical framework for three main reasons. First, it positions the service user as an active and central participant in the creation of value. Second, value is framed as a phenomenological concept to encourage the generation of user-centric perspectives. Third, the central role of user knowledge in S-D logic encourages the emergence of a ‘novel positioned perspective of value’ (Martin 2009; Simmons and Brennan 2017).

This paper is structured into four main sections. First, we present an overview of literatures informing this study from the fields of public management and services marketing. Second, we describe our rationale for undertaking this analysis, study setting, and research methods. Third, we present our empirical findings regarding conceptualisations of ‘value’ in a specialist cancer service context. We conclude by considering both the conceptual contributions offered

concerning ‘user defined’ articulations of value, and the empirical insights into processes underlying value formation in a health care context.

## **1. Service-dominant logic, public management and value**

### ***S-D logic and value co-creation***

In contrast to standard economic perspectives of value, S-D logic emphasises that value (defined as benefit or increase in well-being) is created through interactions arising from service use, rather than through services or outcomes (Vargo and Lusch 2012). At the heart of S-D logic is the notion that ‘service’ (the application of resources for the benefit of another or oneself) forms the fundamental basis for all economic exchange (Vargo and Lusch 2004a; Edvardsson et al 2011; Lusch and Vargo 2014). Resources are viewed as anything that an ‘actor’ (e.g. customer, patient, service provider) can draw on for support. The primary focus in S-D logic, is on ‘operant resources’ (e.g. human skills, knowledge and capabilities), with the beneficial application and integration of such resources resulting in ‘value’ (benefit), as well as the creation of new resources (Vargo and Lusch 2004a, 2006, 2008, 2011; McColl Kennedy et al 2012; Osborne 2018). Value co-creation is viewed as a dynamic process, with each instance of service exchange creating a differing experience and benefit for service actors (Vargo and Lusch 2012). Actors are not, however, able to deliver value to another actor. Instead, they can offer potential value through value propositions i.e. a promise of service to be delivered (Lusch and Vargo 2014).

S-D logic proposes that value is only realised in use, ‘value-in-use’, and is always unique to a particular context, ‘value-in-context’. An essential principle underlying the notion of ‘value-in-use’ is that value is individually perceived and determined by the beneficiary, on the basis of their use experience of service (Vargo and Lusch 2008, 2012; Chandler and Vargo 2011;

Grönroos 2011; Medberg 2016). In framing value as ‘value-in-use’, it is proposed that service users have a central role as both judges and co-creators of the value of a service (Sandström et al 2008; Akaka and Vargo 2015).

Although there are a small number of published studies which explore value co-creation in a health care context, the application of S-D logic to health care is still under researched (McColl-Kennedy et al 2012; Sweeney et al 2015; Hau et al 2016; Joiner and Lusch 2016; Osei-Frimpong and Owusu-Frimpong 2017; Go Jefferies et al 2019). More specifically, limited attention has been given to: (i) the application of the S-D logic framework in a health care context, and (ii) how value is conceptualised by service users when framed as value-in-use in this setting.

S-D logic is underpinned by 11 foundational premises (FPs). Five of these FPs are assigned axiom status because they capture the essence of S-D logic (Vargo and Lusch 2016). The analysis undertaken in this paper explores the relevance of four of the five axioms (axioms 1-4), to the selected study context. These selected axioms, also referred to as FPs, are summarised in Table 1.

### **INSERT TABLE 1 HERE**

The specific axioms/FPs were chosen as they are regarded as: (i) central to S-D logic; (ii) of direct concern to processes of value co-creation, and (iii) most relevant for analysis of ‘value’ and value co-creation at the micro-level (Gummesson et al 2010; Vargo and Lusch 2012; Kryvinska et al 2013; Lusch and Vargo 2014). The primary aim of this study is to investigate how ‘value-in use’ (Vargo and Lusch 2004a) is conceptualised by service users (patients/patients and family members) in a specialist cancer service setting (Axiom 4/FP10). Further specific objectives are to:

- A. Investigate the nature of the service exchange in cancer service encounters (Axiom 1/FP1).
- B. Explore how is value co-created within a cancer service context and who are the actors involved (Axiom 2/FP6).
- C. Investigate the nature of the resource integration process in a cancer service setting through exploring the types and range of resources offered and drawn upon (Axiom 3/FP9).

### ***Value co-creation in health***

Although value co-creation is not a new concept within management literatures, it has only recently begun to feature more significantly within health care and public management research (Hardyman et al 2015; Voorberg et al 2015; Farr 2016; Greenhalgh et al 2016; McDermott and Pedersen 2016; Osborne et al 2016; Palumbo 2016; Osborne 2018). Despite some increased attention to patient engagement and participation initiatives in the planning, evaluation and analysis of health care, there remain two main challenges. First, variation is apparent in both the progress of participation initiatives, which have been viewed as ‘patchy’ and ‘slow’, and the form such initiatives adopt, with ‘consultation’ rather than ‘collaboration’ viewed as the norm (Ocloo and Matthews 2016). Second, limited attention has been given to how the outcomes of participation initiatives may be shaped by: the varying nature of the knowledge production arena; the influence of power and, professional status and resistance within organisational cultures (Renedo and Marston 2011; Gibson et al 2012).

This situation is further complicated by additional factors including: (a) a lack of consensus regarding definitions of participation and when it might be necessary; (b) the range of levels at which to apply engagement (i.e. micro-, meso - or macro- level); (c) the nature of representation (i.e. democratic, technocratic or experiential); (d) disputes regarding the nature of ‘lay’ and ‘expert’ knowledge; (e) the relationship between professional service providers and the public

they serve, and (f) the variety of possible roles which users may adopt (Martin 2008a,b; Fotaki 2011; Gibson et al 2012; WHO/Europe 2013; Fredriksson and Tritter 2017).

Furthermore, a developing critique of patient involvement initiatives argue that efforts to ensure patient participation in healthcare have been viewed as similar to those of manufacturers in engaging consumers in designing and marketing products i.e. goods-dominant logic (Batalden et al 2016). Adopting such approaches frames the relationship between the provider and the patient as one where: (a) the provider is experienced, knowledgeable and the creator of value, whilst (b) the patient is inexperienced, passive or dull and consumes or uses up value (Joiner and Lusch 2016). In contrast, S-D logic views value co-creation as a collaborative activity with ‘the purpose of creating value beyond what each actor can achieve independently’ (Neghina et al 2015, 223).

The argument that service users bring knowledge and skills to exchange challenges more paternalistic, asymmetric approaches to engagement which are provider-determined, rather than patient- or co-determined (Thompson 2007). In doing so, there is potential to shift towards more collaborative models of patient engagement (Robert et al 2015; Boaz et al 2016). In striving to make such a shift there is, however, the risk that involvement initiatives will lead to ‘responsibilized’, rather than empowered service users (Fotaki 2011; Anderson et al 2016). Indeed, Thompson (2007, 1297) argues that limited attention has been paid to the role that patients wish to play and the conceptual meanings behind participation or involvement.

In considering the application of S-D logic to a health care context there are further issues that one should contemplate. The S-D logic perspective on value co-creation implies that value is not accomplished until resources are integrated. Thus, ‘value’ may not be realised at the point of service use and more importantly, failure to integrate resources may result in an absence of value creation (McColl-Kennedy et al 2012). Additionally, it is suggested that a degree of ‘co-

learning' may be necessary before 'customers' or service users are able to integrate resources. It is argued that, in order for resource integration to take place (and subsequent value creation), there are fundamental preconditions which 'includes actors possessing the ability and allowance to use or integrate a resource' (Hibbert et al 2012; Kleinaltenkamp et al 2012, 202). These are important concerns within the context of a high emotion, highly specialised and complex service context such as cancer care (Berry et al 2015; Anderson et al 2016).

## **2. Empirical study**

### ***Methodological approach***

This study adopted a qualitative, single site, case study design (Eisenhardt 1989, 1991; Yin 2009). There are three main reasons for the choice of methodological approach. First, qualitative methods enable rich descriptions of complex, emergent, dynamic phenomena about which little is known (Rundall et al 1999; Shortell 1999; Mason 2002). Second, qualitative research approaches are well suited for locating 'the meanings people place on events, processes and structures of their lives and for connecting these meanings to the social world around them' (Miles et al 2014, 11). Third, case study research enables the investigation of contemporary phenomenon within its real-life context and is particularly useful where contextual conditions are highly pertinent (Yin and Davis 2007; Yin 2009).

This study focuses on value creation within the context of an individual's (i.e. patient's) cancer-related service experiences. The meaning, nature and dimensions of value were explored within the context of micro-level health service encounters. More specifically, this means the interactions between patients and health care staff during individual health service encounters (Hardyman et al 2015). The case study site (The Hospital) is a UK specialist cancer centre, which delivers a range of services (i.e. chemotherapy, radiotherapy, palliative and supportive

care) through inpatient, day case, and outpatient services. Although the Hospital formed the primary basis of the case, the majority of its patients had undergone diagnostic, investigative and/or treatment related procedures in other health care settings prior to attending the Hospital. In light of this, service users and emergent trajectories of care were the units of analysis in this study.

The sample of participants invited to take part in the study included patients attending the Hospital and their family members or friends who were in attendance with the patient. The sampling approach adopted in this study was purposive, whereby patient participants were selected on the basis of the following characteristics thought to have some bearing on their perceptions and experiences (Barbour 2008): treatment type and setting; outpatient or inpatient status; gender, and length of time they had been a patient at the Hospital. Type and site of cancer was not a criterion for selection, nor was age. The perspectives of patients who had previously received treatment were also sought via the Hospital's Patient Liaison Group.

Sampling stopped when a thorough understanding of the phenomenon under study had been achieved (Kuper et al 2008). Although this study did not seek to gain a representative sample, the demographic of patients recruited in this study was similar to respondents to a regional cancer patient experience survey. Family members of the sample of patients were invited to take part in interviews if: (i) they were present when patients were initially approached by the researcher and informed of the study, or (ii) if patients later requested their attendance. Whilst staff working at the Hospital participated in the larger study, their data are not reported in this paper because the focus is on service-user conceptualisations of value. The total number of participants in this study was 72, of which 56 were patients (29 male, 27 female) and 16 family members or a friend (3 male, 13 female). Patient participants included those using both

inpatient and day/outpatient facilities (15 and 41 patients respectively). The majority of family members were the patient's spouse or partner (3 male, 10 female).

### ***Data collection***

Semi-structured interviews were used to encourage participants to share rich descriptions of the study phenomena (DiCicco-Bloom and Crabtree 2006; Rubin and Rubin 2005). All interviews were recorded and transcribed verbatim. Interviews covered: (a) aspects of care and treatment of importance to the patient, and how value was perceived and experienced i.e. what does value mean to you as someone using the service (Axiom 2/FP6, Axiom 4/FP10); (b) involvement in healthcare processes and decision making (Axiom 1/FP1), and (c) the range of resources drawn upon through the cancer journey (Axiom 3/FP9). The abstract nature of 'value' as a concept, necessitated 'value' also being framed in some instances as perceived benefit(s) or 'gain' from using the service or even more simply, what participants felt they had 'got out' or hoped 'to get out' of using of the service (Vargo and Lusch 2012)

Fifty-seven interviews were undertaken in total, of which fifteen were combined patient/family member interviews. Interviews ranged in length from 13-87 minutes, with just under half of the interviews (n=27) lasting 20-40 minutes in length. The level of participation of family members in the interviews ranged from minimal to active involvement in the discussion. Interviewing stopped when a point of theoretical saturation was reached, when interviews were only adding marginal increases to the researcher's knowledge and the findings (Eisenhardt 1989; Bryman 2004).

### ***Data analysis***

The constant comparative approach guided the iterative processes of data gathering and interpretation (Glaser and Strauss 1967; Corbin and Strauss 2008). This enabled consideration

of tentative categories which could be refuted or confirmed during the main analysis of the study data (Braun and Clarke 2006). This analysis then followed the methods outlined by Spiggle (1994) which involved categorisation (classifying the data based on coherent meaning), abstraction (developing more encompassing and general categories), comparison (within and between categories) and dimensionalisation (conceptualising the finalised categories). These operations were used to organise data, extract meaning, reach conclusions, and generate conceptual schemes to describe the data (Spiggle 1994).

The stages of data analysis undertaken in this study are summarised in Table 2 (Columns 1-3). For ease of reference, they are described as discrete stages but, in reality, the movement was fairly fluid and iterative between data sources, data collection and analysis processes.

#### **INSERT TABLE 2 HERE**

The initial categorisation of the participant interview data (Stage 1- see Table 2, Column 1) was deductive and informed by the S-D logic literature (Vargo and Lusch 2004a, 2004b; 2008, 2014, 2016). This involved identifying and classifying units of data based on the coherence of its meaning (Spiggle 1994) in relation to the axioms/FPs of interest in this study. This led to the identification of four initial main categories (Axiom1/FP1; Axiom 2/FP6, Axiom 3/FP9 and Axiom 4/FP10). The second stage in the data analysis (Stage 2- see Table 2, Column 2) process adopted an iterative approach that entailed ‘open coding’ within the categories identified in the initial categorisation (Stage 1). All of the data contained within each of these four preliminary categories were reviewed and patterns and common units of meaning were identified. This layer of analysis led to the generation of sixteen additional sub-dimensions. Once initial patterns and linkages in the data had been explored, rival or competing themes and explanations were explored. This was undertaken to identify other ways of organising the data that could lead to different findings, and by looking for data that supported alternative

explanations (Patton 1999). The third stage of data analysis (Stage 3- see Table 2, Column 3), involved developing more encompassing and general categories through constant comparison of the data and sub-dimensions identified in Stages 1 and 2 (Spiggle 1994).

The analysis of participant interview data presented in Table 2 led to the identification of three dominant study themes which facilitate (or restrict) value creation (see Table 2, column 3): 1. Access to resources; 2. Quality of interactions, 3. Resource use (resource exchange, utilisation and integration processes). These three themes correspond to each of the S-D logic axioms/foundational under investigation in this study (Axiom 1/FP1; Axiom 2/FP6; Axiom 3/FP9; Axiom 4/FP10) and hence are additionally classed as overarching study themes. Illustrative data concerning these three overarching themes and associated sub-dimensions are provided in Table 2, column 4.

### **3. Participants' Conceptions of Value in Specialist Cancer Services**

Value (value-in-use) was conceptualised in this study in terms of direct interactions between patients and health care staff. The capacity to access, exchange, utilise and integrate resources, were found to be central factors in the creation of value in this service context (Themes 1 and 3; see Table 2, columns 3 & 4). These processes were also shown to be influenced by the nature and quality of interactions (Theme 2; see Table 2, columns 3 & 4) during service encounters. Through transparent dialogue with knowledgeable, empathetic and responsive staff, patients reported feeling emotionally safe, with trust also featuring as an important aspect of service use. These findings are discussed in turn in relation to each key theme.

#### ***Access to resources***

Access to the specialist operant resources (knowledge and skills) of health care staff was raised as a key aspect of 'value'. A number of sub-dimensions emerged which related to: ongoing

access and support, the concentration of specialist knowledge and skills, timely access to resources and the reduction of information asymmetry (see Table 2, columns 3 & 4). Having access to named contacts onsite and offsite who could be consulted on a 24-hour basis, was emphasised as an important aspect of ‘value’ (see Table 2: column 4; 1i). Patients and family members reported feeling emotionally safe and reassured through the provision of such services. The specialist focus of the Hospital and the concentration of specialist staff also contributed to positive participant perceptions of value, whereby ‘cancer’ was viewed as core business, and as such facilitated flexible, responsive, fast and efficient care. This was often contrasted to experiences within non-specialist hospitals.

And someone will give you an answer, and if they haven’t got it, they know somebody who has. Well when you’re in a general hospital and if you’re not in a specialist area, right then they’ve only got limited resources to be able to give you that (IN 5: ID 6, patient).

The level of staff knowledge, technical expertise and the standard of care within the Hospital were perceived by patients and family members to be higher than in other health care settings (see Table 2: column 4; 1ii). Through accessing specialist resources, participants (patients, family members) highlighted how the ‘burden of worry’ was reduced, shared or ‘off loaded’ to staff. Fast and timely access to specialist health care resources (physical resources and knowledge and skills of staff) was also emphasised by a number of patients as important in terms of health outcomes, but also as a means of alleviating anxiety (see Table 4: column 4; 1iii)

The reduction of information asymmetry through dialogue with specialist health care staff was also an important aspect of value. This concerned the reduction of uncertainty regarding treatment processes and outcomes, but also the experience of living with cancer. By having questions and concerns addressed promptly by knowledgeable and informed staff, part of the ‘emotional burden’, of the disease appeared to be shared, off-loaded or reduced. Honesty of

staff responses, also featured in patient discussions of ‘value’, ‘*There is no bull you know they are straight upfront with you*’ (IN 40: ID 53, patient). Patients also highlighted how dialogue with specialist health care staff, facilitated access to information that would otherwise be unknown (see Table 2: column 4; 1iv).

However, the data revealed variation amongst patients in terms of the level of information they wished to receive, and the way in which this was delivered. Some patients highlighted difficulties processing information early on in their cancer journey and reported requiring a staggered approach to information sharing. Other patients expressed a desire for certain types of information to be kept from them, such as length of life remaining, or possible future outcomes, ‘*Some people would want to know from, sort of, from treatment to death, where I don’t want to know that*’ (IN 51: ID 66, patient).

### ***Quality of interactions***

The quality and nature of interactions between patients and health care staff appeared to be a key element in shaping positive health care experiences for service users. Indeed, two thirds of the patients commented on the nature of interactions during service use. Emphasis was placed on the interpersonal skills of staff and the language of care; person-focused care and staff having time for the patient. Clinical outcomes, whilst important, were not the only area of concern for patients, an aspect of value that was raised by patients and family members (see Table 2: column 4; 2i).

So objectively I want them to deliver the right chemicals to me as soon as possible to do as much as possible to the cancer cells in my body that’s the objective truth but subjectively it makes a big difference to me actually when. I now reflect on it how I am treated. [...] I am the kind of person who wants not just to be a body with needs that have to be dealt with in terms of you know injections but as a person who probably needs to feel valued and respected [...] (IN 18: ID 23, patient).

Person-focused care was also raised as an important aspect of interactions, with many participants relaying the significance of feeling they were treated as an individual and not just another number. Participant accounts also highlighted how staff making time for them as an individual enhanced the perception and feeling that they mattered (see Table 2: column 4; 2ii & 2iii). This was often contrasted to experiences in larger, non-specialist hospitals, where it was perceived there were fewer staff available per patient.

### ***Resource Use***

The theme 'resource use' was shorthand for resource exchange, utilisation and integration processes. Several sub-dimensions were identified within this theme: types of involvement; types of resources; capacity to exchange/ integrate resources; expectations and perceived outcomes (see Table 2; columns 3 & 4). The majority of patient participants in this study likened involvement in decision making processes to one of 'inclusion' and 'provision of final consent', rather than active engagement in shared-decision making. Patients described themselves as being part of a team, with health care staff, but this largely related to a sense of inclusion in 'the team' and being an informed decision maker.

Doctor E said, we'll work as a team on this, you know. There's us and there's you but were a team together, and that's how I feel because the very fact that they keep you informed and then they ask me questions as well (IN 44: ID 59, patient).

There appeared to be a spectrum of 'informed consent', which ranged from: being informed and agreeing with decisions regarding treatment or care to being informed and included in discussions. There were very small numbers of patients who reported actively leading on choices about treatment interventions, which may be expected in such a specialised service context where there are differentials in terms of the knowledge, training and medical background of patients and staff. Most patients reported being guided by clinical staff in terms

of treatment options and following their advice, this was usually after their feelings regarding treatment options had been explored.

It was apparent, however, that some patients felt it was outside of their remit to be make decisions, with such responsibility perceived as the domain of health care professionals (see Table 2: column 4; 3i). Additionally, a small number of patients who had previous experiences of cancer, or longer experiences of having lived with or being treated for cancer, implied that a degree of ‘learning’ was required before feeling able to ask the necessary questions to participate in decision making.

[...] I didn’t really ask any questions and in hindsight I found that perhaps they didn’t offer any more if you didn’t ask questions. [...] But then when I was diagnosed with my secondary cancer.... I think I’ve become braver, so I ask an awful lot more questions (IN 09: ID 11, patient).

This is an important finding as this suggests that those patients with ‘experience’ (either from a previous cancer or long period of treatment) are more adept at questioning and articulating their views regarding treatment and care. Although the views of patients without such longstanding experience may be elicited by staff through more indirect ways of probing, this may be dependent on staff skills to do so.

In terms of the types of resources exchanged, integrated and utilised within this service context, emphasis was mainly placed on the resources of health care staff (knowledge and skills) and the perceived capacity of patients to process, use and integrate the resources offered (i.e. information and advice) in a timely manner. Patients also drew upon personal resources i.e. personality traits/attitude, family members and friends, previous experiences, when faced with decisions about treatment options. In one instance, a patient’s previous experience was used to advise a member of staff about their treatment regimen.

I think she was a new member of staff, I'd had all the pre-meds and my alarm went off and she came over and she was going to put the [DRUG NAME] in and I said "Oh haven't had my 30 minute wait yet" and she said "Why do you have to have that?" and I said "Well I just do" and she went and asked somebody and they said "Oh yes you must wait 30 minutes" and I was just glad it wasn't my first chemo because I wouldn't have known any different (IN 23; ID 28, patient).

A small number of patients reported accessing other sources of information, such as written materials or internet-based resources which they brought to health care consultations. Most patients, however, indicated a preference for information exchange through face-to-face dialogue with health care professionals (see Table 2: column 4; 3ii).

A number of patients perceived they did not have the capacity to digest and integrate the resources that were offered (see Table 2: column 4; 3iii). Others highlighted how the capacity to make decisions, and draw upon resources, was restricted by the timescale in which they were required to undertake such activities. There were, however, a small number of patients within the study who experienced repeat occurrences of cancer and thus had a longer experience of living with the disease. These individuals implied that their knowledge of the disease and capacity to: (i) absorb information and increase knowledge of their condition, and (ii) to more 'actively' participate in service exchange and ask questions, increased over time as they become more 'experienced patients'. This implied that a degree of (co-) learning occurred over the duration of the cancer service experience as resources were exchanged, integrated and utilised.

[...] Anything that I have taken from that forum then I am bringing it here to talk about. They are actually saying "Yes well we know that" or "that drug might not be available here, but we know where it is" or "we might be able to get funding but let's wait and see how this goes" (IN 09: ID 11, patient).

Although some patients had high expectations of service prior to attending the Hospital, for many these were low or unknown as they had not experienced cancer previously (see Table 2:

column 4; 3iv). Some patients expressed fears regarding: their future health; fear of dying or encountering other extremely unwell patients prior to attendance at the Hospital, which were later found to be unsubstantiated. Of interest, is whether having such low or unknown expectations of service, artificially inflated positive perceptions of ‘value’ after attending the Hospital.

Value was largely perceived in this study in terms of positive experiences during service use (process value) rather than final benefits (outcome value). The former tended to emphasise the positive relational aspects of the service experience (i.e. relationships with staff; interpersonal and communication skills). These were more immediate, and potentially more ‘visible’, than potentially unknown treatment outcomes. The latter (outcome value), tended to be raised by more experienced patients (i.e. those whom have undergone several rounds of treatment or had experienced a recurrence(s) of cancer). In these instances, ‘value’ was expressed in terms of direct health-related benefits (i.e. eradication or containment of the cancer) or the impact of these perceived benefits on their daily life such as having more time to spend with family (see Table 2: column 4; 3v).

These points are particularly poignant in the account of a patient who had three separate diagnoses of cancer over a period of 15 years. When reflecting on this experience, it was apparent that their perception of ‘value’ shifted over time and in accordance with the context in which value emerged.

[...] Because the first time I was diagnosed my children were seven, nine and eleven and it was just survival. [...] I had to see them grow up. [...] Well they are all grown up now, and I just enjoy, because my focus is slightly different in my head, that I am well today. So, enjoy today because nobody knows what tomorrow will bring for anybody. And as and when I deteriorate, if I do, I think that that is the next step... (IN 09: ID 11, patient).

These data would seem to illustrate the temporal nature of the concept of ‘value’, in that this varied over time and was experienced within the context of individuals’ lived experiences.

#### **4. Discussion**

The primary aim of this study was to investigate how value, when framed as ‘value-in-use’ (Vargo and Lusch 2004a), is conceptualised by service users in a specialist cancer service setting. This paper also responds to the call by Osborne and colleagues for empirical research to consider conceptualisations of value in public services (Osborne et al 2013, 2016; Osborne 2018). In addressing these themes, this paper presented the first analysis of conceptualisations of value in the context of UK specialist cancer services and it offered the first empirical application of the S-D logic framework in that context.

Three main findings emerge from this study. First, it is shown that ‘value’ in cancer services is a temporal concept, which varies over time, and is experienced ‘in-context’. The data illustrate clearly how patients conceptualised value in two different ways (Hau et al 2016): (a) as positive experiences during the co-creation process (process value), or (b) in terms of final benefits (outcome value). The differentiation between these ‘two types’ of value may reflect difficulties in evaluating technical aspects of the service, hence a focus on interpersonal aspects of care. Additionally, outcomes of the service (i.e. treatment effectiveness) may have been unknown at the point of service use and/or participation in this research project. In contrast, the experiences of more ‘seasoned’ patients within this study revealed that conceptualisations of value shifted over time as more ‘resources’ were gained in terms of knowledge of the disease and treatment processes, and the effectiveness of treatment interventions. This finding suggests that less experienced patients may not have integrated the necessary resources to appraise, determine and realise value in terms of longer-term goals and outcomes (Vargo and Lusch 2011; McColl-Kennedy et al 2012).

The phenomenological, contextual and individually determined nature of value, as implied by Axiom 4/FP10 of the S-D logic framework, is underscored within this study. This is exemplified by illustrations of patients and family members defining ‘value’ in terms of their individual cancer service and personal experiences. There are, however, common themes identified in relation to how value is conceptualised and value formation facilitated. Three main themes were identified which contributed to the creation of value in the UK specialist cancer care context: access to resources; the quality of interactions and resource use (resource exchange, utilisation and integration processes). These findings clearly reflect the interconnected nature of the S-D logic axioms/premises under investigation. For example, in considering how value is conceptualised (Axiom 4/FP10), it is apparent that perceptions of value are influenced by previous experiences (Axiom 3/FP9), as well as the nature of resources offered and exchanged, and the actors involved in these processes (Axiom 1/FP1; Axiom 2/FP6).

Second, this study reveals that the capacity to engage in service exchange, and to use and integrate the resources offered, is shaped by both: (a) patients’ perceptions of their capacity to undertake and engage in resource exchange and integration, and (b) the nature of the resources offered. In some instances, co-learning is required to enable patients to optimise and benefit from the resources offered. These findings provide empirical support to the theoretical and conceptual work of Kleinaltenkamp and colleagues (2012) who posit that the capacity to use and integrate resources is a precondition for utilising resources and engaging in service exchange. This is an important consideration in relation to models of patient engagement in health care. It implies that, in order for patients to be ‘activated’, they may first need to learn how to use resources before they are able to actively participate (Hibbard and Mahoney 2010; Hibbard and Greene 2013).

Third, S-D logic usefully focuses attention on the interactional aspects of service, and how value is created through use of a service (Vargo and Lusch 2004a). The framing of the service user, as someone who brings their own operant resources (i.e. knowledge and skills) to service encounters as well as the assessor of value, fits with notions of co-production, patient engagement and patient activation in health care (Hibbard and Mahoney 2010; Hibbard and Greene 2013; Janamian et al 2016). There are, however, a number of caveats concerning the mapping of this framework to a health care context.

The S-D logic framework is premised on the idea of service being exchanged for service, whereby knowledge skills/competences are applied for the benefit of another (Lusch and Vargo 2006; 2014). Although the S-D logic framework acknowledges that the operant resources of various actors involved in value co-creation differ, it does not directly address how this affects levels of engagement in service exchange. Although the S-D logic framework views service exchange, resource integration and subsequent value co-creation as interactional processes, the quality of interactions during service exchange, or the manner in which resources are exchanged and utilised, are not questioned or captured within the current S-D logic axioms. As the quality of interactions and nature of resource exchange and integration were found to be central aspects of positive experiences of value in this current study, this is a limitation of the current S-D logic framework.

Furthermore, S-D logic assumes that customers willingly co-create value with service providers. Reluctance or unwillingness to participate in value co-creation is not ‘problematised’ within S-D logic (Eriksson 2019; Osborne 2018). Health care, whilst sharing some common characteristics with other service industries, is importantly, dissimilar in a number of ways: (i) customers are typically unwell and under stress; (ii) healthcare consumers may be reluctant customers, as the service may be ‘needed’ but not necessarily ‘wanted’; (iii)

customers may be unwilling to perform the co-producer role, and (iv) repeat business (i.e. returning customers) may indicate service failure rather than success (Berry and Bendapudi 2007; Osborne 2018). Moreover, it cannot be assumed that the responsibilities and tasks of health care professionals can easily be delegated to patients as ‘a matter of course’ (Nordgren 2008, 510).

In extending current empirical knowledge regarding the extent to which S-D logic maps onto a UK specialist cancer service context, this study extends current understandings in three main ways. First, it elaborates the conceptualisation of ‘value-in-use’ and ‘value co-creation’ within a UK specialist cancer service context. By gaining insight into how value is conceptualised in a specialist cancer service context, it was possible to identify factors contributing to the creation of value in this service context. Second, this study furthers understandings of the processes underlying value co-creation (service exchange and resource integration) which have previously been viewed as an unexplored black-box and identified as important areas of consideration in both the services marketing and public management literatures (Pfisterer and Roth 2015; Grönroos 2011; Osborne 2018). Specifically, this study has shown that the capacity to engage in service exchange, and to use and integrate the resources offered by staff, was shaped by both: (a) patients’ perceptions of their capacity to undertake and engage in resource exchange and integration, and (b) the nature of the resources offered. It should not be assumed that all of the resources offered to patients could readily be used and integrated.

Third, the findings of this study have implications for health care policy and the delivery of services. Specific attention has been drawn to the quality and nature of interactions in health care encounters. These findings reinforce the importance of focusing on processes of care, and not just health care outcomes. Relational aspects of care matter to patients and impact on overall service experiences. This study gives a clear signal that health care practitioners could improve

their practice by focusing on the inter-personal as well as technical aspects of the service that they offer. As findings presented here show, value co-creation may be facilitated through communicating with and listening to patients (i.e. facilitating a dyadic flow of information) to ascertain for each patient: (i) what are the issues that matter most to them at that point in time; (ii) how they would like to share, receive and exchange information and resources; (iii) whether help or training is needed to use the resources offered, and (iv) how and whether they would like to be involved or included in decisions or processes concerning their treatment and care. These preferences should be taken into consideration in the development and progression of patient's health plans, which may change over time and in accordance with their individual experiences. This is an important consideration given recent service failings such as those outlined in the Francis Report (2013). These findings could be used to inform training and development programmes for staff working within a health care context.

## **Conclusion**

This paper constitutes an important starting point from which to develop productive dialogue concerning articulations and experiences of 'value' in health care policy, practice and research. Key contributions of this study concern: (i) the empirical illustration of value as a temporal and experiential concept; (ii) furthering empirical understandings of the processes underlying value co-creation (service exchange and resource integration), and (iii) identifying implications for health care policy and the delivery of services.

Value was largely conceptualised in this study in terms of: (a) the relational and interpersonal aspects of care and, (b) access to the specialist skills and knowledge of staff within the specialist centre. Emotional safety and trust in the skills of those providing the service were viewed as important aspects of value. This is perhaps, unsurprising in a highly professionalised service context such as 'cancer care', where information asymmetry exists between users and providers

of the service. The seriousness and potentially life limiting nature of the disease are also factors which may have contributed to such emphasis. Because this study is the first to specifically explore conceptualisations of ‘value-in-use’ in a health care context, it is not possible to directly compare perceptions of value in this specialist service context, with other health service contexts. This is, however, one of four themes that could be explored in future research that builds on this study.

First, whilst generalisation from this exploratory study is limited by its single case design, the research approach and primary concerns are of clear relevance to other specialist health care contexts involving health conditions that are life limiting (i.e. coronary heart disease; pulmonary obstructive airways). Future studies could usefully consider exploring conceptualisations of value across multiple specialist service sites, and/or adopting longitudinal study designs to enable the exploration of value perceptions across time.

Second, the findings from this study are also of relevance to other highly specialised knowledge services outside of health care (i.e. legal services) which: (a) involve a high degree of direct contact between users and providers of the service; (b) where the stakes are also viewed as high, and (c) where there is substantial asymmetry in terms of the expertise and knowledge of users and providers of the service. Future work could consider exploring the main themes identified in this study and assessing the extent to which they are also apparent in other service contexts. Similarities may be most likely to occur in other service areas where: (i) users of the service move between general and specialist service provision, and (ii) service use entails multiple rather than single service encounters.

Third, this study contributes to the development of a wider understanding and perspective on the phenomena of value co-creation. Further empirical research is required to drill down and identify the specific activities or practices in a health care context which constitute value co-

creation in relation to both users and providers of health care services. Research is currently limited in this field as very few studies have explored such issues (McColl-Kennedy et al 2012; Sweeney et al 2015; Frow et al 2016; Go Jefferies et al 2019). The identification of specific activities and practices which positively contribute to the creation of value and engagement in health care, are important areas of investigation in a public service context. As models of health care delivery increasingly emphasise co-production and the co-creation of health care, further clarity and empirical investigation of the strategies which promote these concepts is required. Willing participation in co-production and value co-creation cannot be assumed in this public service context. The extent to which patients have the prerequisite skills, knowledge and indeed desire or motivation to ‘actively’ engage and be involved in value co-creation are key considerations in the context of an expert and complex service such as cancer care (Anderson et al 2016). It is unclear, in the face of such a ‘high emotion’ service, if service users can truly be ‘self-reflexive actors’ acting with choice (Berry et al 2015).

Finally, this study has focused on ‘individual’ conceptions of value in micro-level health service encounters. The balance between ‘individual value’ and ‘public value’ are, however, key challenges for public service delivery (Osborne 2018; Bovaird and Tholstrup 2010). Future work could further extend articulations of ‘value’ in the public sector through the exploration of ‘user’ and ‘provider’ perceptions of ‘individual’ and ‘public’ value in health and other public service contexts.

### **Acknowledgements**

The authors wish to thank all of the participants involved in this study.

### **Disclosure statement**

There are no conflicts of interest

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**Table 1: Selected S-D logic axioms and foundational premises (adapted from Vargo and Lusch 2016)**

<b>Axiom/Foundational premise (FP)</b>	<b>Description</b>
Axiom 1/FP1	Service is the fundamental basis of exchange
Axiom 2/FP6	Value is cocreated by multiple actors, always including the beneficiary
Axiom3/FP9	All social and economic actors are resource integrators
Axiom 4/FP10	Value is always uniquely and phenomenologically determined by the beneficiary

**Table 2: Data analysis process and illustrative data**

Stage 1. Value formation by Axiom/FP	Stage 2. Preliminary dimensions by FP's	Stage 3. Value co-creation by emergent theme & dimensions	Three main themes and illustrative data
<p>Axiom 1/FP1 - Service is the fundamental basis of exchange</p> <p>Axiom 2/FP6 - Value is co-created by multiple actors always including the beneficiary.</p> <p>Axiom 3/FP9 - All social and economic actors are resource integrators</p> <p>Axiom 4/FP10 - Value is always uniquely and phenomenologically determined by the beneficiary.</p>	<p><b>FP1</b>            *Information asymmetry            *Types of involvement            *Capacity to exchange resources/Info.asymmetry</p> <p><b>FP6</b>            *Expectations            *Patient to patient value co-creation            *Relationships</p> <p><b>FP9</b>            *Types of resources (personal, family, other)            *Previous experiences</p> <p><b>FP10</b>            *Interpersonal skills/care            *Access and support            *Timely access/responsiveness            *Specialised and expert            *Time for the patient            *Reduction of information asymmetry            *Effectiveness of treatment            *Time for normal life</p>	<p><b>1. ACCESS TO RESOURCES</b>            (i) Ongoing access and support            (ii) Specialist knowledge and skills            (iii) Timely access/responsiveness            (iv) Reduction of information asymmetry</p> <p><b>2. QUALITY OF INTERACTIONS</b>            (i) Interpersonal skills/language of care            (ii) Person-focused care            (iii) Time for the patient</p> <p><b>3. RESOURCE USE (Resource exchange, utilisation and integration processes)</b>            (i) Types of involvement            (ii) Types of resources            (iii) Capacity to exchange/ integrate resources            (iv) Expectations/Managing expectations            (v) Perceived outcomes</p>	<p><b>1.Access to resources</b>            (i) 'We've got no end of contacts. So whatever the problem might be in different areas, I know I can just go to the phone and there's always someone there who will give you help' (IN 30: ID 41, family member).            (ii) 'They are all specialists they know their jobs inside out and you can put plenty of trust in them because they know what they are doing' (IN 10: ID 13, patient).            (iii) 'Everything is instant here and you know you haven't got to be afraid of anything because you know they will deal with it straight away and that's what takes the fear out of it' (IN 76: ID 93, patient).            (iv) '[...] just people explaining what was happening because obviously as I said I knew nothing about cancer' (IN 58: ID 74, patient).</p> <p><b>2.Quality of interactions</b>            (i) 'I think the staff, it's not just what they do clinically. I think it's the way they act. I mean it's not just the care, the clinical care' (IN 55: ID 71, family member).            (ii) '[...] the whole system is geared to me or the patient or whatever it is and not just to producing you know facts and figures' (IN 25 part 2: ID 33, patient)            (iii) 'Even when they are busy when you are having the chemo they don't make you feel like they are busy, they are there for you [...]' (IN 23: ID 28, patient).</p> <p><b>3.Resource use</b>            (i) 'I don't really want to be involved in making decisions because it is not my job I am a patient and I am just a cook at the end of the day' (IN 16: ID 20, patient).            (ii) 'What I want to know from Doctor E I ask her and she tells me and that's been enough' (IN 04: ID 05, patient).            (iii) 'Sometimes I felt that I was a bit out of my depth. I know they say they give you as much information as they can, but we're not, you know, we're patients unless you have some sort of medical training, it's difficult [...]' (IN 15: ID 19, patient).            (iv) 'Yes that is what I pictured. I would come here. There would be lots of very ill people with no hair, very thin, very, very ill people...' (IN 54: ID 69, patient).            (v) 'It's just giving me that little bit of extra time' (IN 22: ID 27, patient).</p>