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Value co-creation in high involvement services: the animal healthcare sector

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Abstract

Purpose
This paper investigates the significance of value co-creation to the UK animal healthcare sector from the perspective of the key industry stakeholders: clients, veterinarians and paraprofessionals.

Design
Value co-creation constructs in the sector were identified and measured using a mixed methods approach comprised of qualitative NVivo© thematic analysis of depth interviews (n=13) and quantitative Exploratory Factor Analysis (n=271).

Findings
Qualitative results revealed nine underlying dimensions regarding service delivery in the sector: trustworthiness, communication, value for money, empathy, bespoke, integrated care, tangibles, accessibility and outcome driven service. Exploratory Factor Analysis of professional survey data loaded onto seven latent factors, with strong value co-creation dimensions identified.

Research limitations/ implications
The sampling process is sufficiently representative and diverse to present meaningful and valuable results; however, surveying should be extended to include the client group. Due to the originality of the research replication of the study will be beneficial to the broader understanding and application of value co-creation to the high-involvement services of animal healthcare.

Practical implications
Recognition of the importance of value co-creation to the sector should encourage professional stakeholders to develop and adopt integrated models of service provision and to provide improved levels of service quality.

Originality and value
The paper makes an original contribution to knowledge regarding value co-creation in respect of high involvement service provision. Its findings should be of value to academics interested in value co-creation in service sectors as well as animal healthcare practitioners seeking to offer better value and quality service provision.

Keywords: *Service quality Service delivery Value co-creation Value Animal health sector*

Introduction

Domesticated animals form an important part of modern life, fulfilling roles as household companions, working animals and food producing livestock. Thus, the propensity of people to keep animals and the demand for animal related products and services are the two factors that underpin the scale of demand for animal healthcare. Traditionally the domain of veterinarians specialising in farm, equine or companion animal service, substantial numbers of other specialist animal healthcare providers have begun to enter the market and day to day care is now multifaceted and complex. The group of non- veterinary trained animal healthcare providers include for example, veterinary physiotherapists, animal chiropractors, veterinary nurses veterinary pharmacists, and collectively are known as paraprofessionals. Progressive veterinary organisation's appreciate the benefits of working with paraprofessionals (Moore, 1996; Reader, 2012; Sharp, 2008) and operate with established multi-disciplinary teams (Statham and Green, 2015). However, this is not widespread practice across the sector, despite developments in client popularity and usage of paraprofessional services (Kinnison *et al.,*2014).

The clients' quest for better value means that enterprises need to be dynamic and able to quickly respond to evolving markets (Grönroos, 2006; Grönroos 2007; Vargo and Lusch, 2015). Industry sectors generally appreciate that service quality and a customer centric ethos attracts and retains clients, impacting on profitability (Buttle, 1996; Vargo and Lusch, 2004). In the competitive animal health industry client loyalty can no longer be guaranteed and customers will change service providers in the pursuit of higher service quality and better value. Often this sector has failed to maintain pace with developing client demands and has an over-reliance on historically successful delivery models which are professional rather than client centric (Lowe, 2009; Veterinary Development Council Report, 2012; Williams and Jordan, 2015). This is reflected in a lack of applied service quality research in the UK animal health sector when compared to the analogous human health sector and animal health industries in North America (Coe *et al.,* 2008; Grand *et al.,* 2013).

Service and value co-creation constructs in animal health

Service quality is accepted as a fundamental driver for sustainability, success (Buttle, 1996; Vargo and Lusch, 2004; Zeithaml *et al.*, 2009) and is the foundation of all economic exchange (Vargo and Lusch, 2008). The contemporary service environment involves informed, educated and sophisticated clients who are consistently seeking better value, higher service quality and are open to greater flexibility when selecting a service provider (Walter *et al.,* 2010). In parallel with other enterprises these customer traits are also now evident within clients of the animal healthcare sector (Williams and Jordan, 2015). Comprehensive scrutiny of service quality has been completed in many areas of service provision (Wisniewski, 2001) including the retail sector (Carman, 1990), financial services (Abdullah *et al.*, 2011) and telecoms (Ahmed *et al.,* 2011) and additionally a diverse range of human healthcare sectors (Newsome and Wright, 1999; McCelland and Vogus, 2014), but not in the animal healthcare sector. Human health sectors have equivalent counterparts to the animal healthcare sector such as nurses, physiotherapists, dentists and nutritionists. Similarities in the provision of human and animal healthcare and the types of professionals involved, make both the sectors and client expectations comparable and the lack of service quality inquiry into animal health provision noticeable.

Domesticated animals make an important socio-economic contribution to the UK through their role as household pets, riding or competition horses or as food producing animals, making the UK animal healthcare sector an expansive and potentially lucrative private sector. It is estimated that up to half of the UK households keep a companion animal such as a dog or a cat (Pet Food Manufactures Association, 2013). Many of these pet owners consider the animals to have child-like qualities and to be a part of the family, (Brown and Silverman, 1999; Timmis, 2008) thus revealing high involvement behaviours during service provision. The most current UK horse industry survey estimate that there are 3.5 million riders in the UK and that maintenance of equine health is estimated to be worth £344 million annually (BETA, 2013), representing a significant industry solely centred on one group of domesticated animals. The UK also has substantial markets for food producing animals which are highly valuable to the population both in terms of production for the home market but also for sustainable export markets. Regardless of the differences in the animal sector characteristics, all animal healthcare provision is inherently providing a service. Despite

the changing nature of client expectations and the societal and financial importance of these animals, appraisal of service quality provision and measurement techniques have yet to be explored in a meaningful way. There is a scarcity of empirical service quality and client expectation and needs focused research (Coe *et al.,* 2008; Lee, 2006) within the sector.

Service-dominant logic emphasises the interactions between service provider and clients, proposing all service to be inherently relational (Lusch and Vargo, 2011) as perceived relationships and cohesive bonds underpin loyalty and trust, leading to co-operation and creating value in service (Grönroos, 2000). Client actions have a functional (Gummesson, 1998) and dynamic impact on the service business and the other clients involved with the organisation (Grönroos, 2007). In models of value co-creation, the client is endogenous to and actively participates in the service provision (Grönroos, 2000; Vargo and Lusch, 2008). Grand *et al.,* (2013) propose value co-creation to be highly relevant and valuable in the provision of animal healthcare services to maintain long term relationships and build loyalty (Leppiman and Same, 2011). The extant literature categorises value co-creation into five elements: process environment, resources, co-production, perceived benefits and management structure (Bharti *et al.,* 2015). Only some of these elements have been identified within the animal health literature (Shaw, 2004). The factor *resource categorisatio*n, which encompasses concepts of relationship and trust, is an important element of value co-creation (Bharti *et al.,* 2015) and is extremely pertinent to animal healthcare (Shaw, 2004). The development of bonds between provider and client with mutual commitment to the process are essential constituents of trust and are already reflected in animal healthcare literature (Coe *et al.,* 2008). Active participation by the client has been defined as the extent to which clients may share information, provide suggestions and engage in mutual decision-making processes (Chan *et al.,* 2010). This concept manifests itself in the animal healthcare sector as clients wish to be educated and actively involved in the decision-making process around the care of their animal (Coe *et al.,* 2008). Trust is identified as a fundamental quality of human interaction and relationships (Grand *et al.,* 2013), it is an essential component in value co-creation and has been shown to be important in the maintenance of the client-medical practitioner relationship in human healthcare (Trachtenberg *et al.,* 2005). A similar tendency is apparent in the animal health sector as client perception of service quality and so likelihood of future visits (loyalty) is strongly

associated with developing positive interactions and relationships with health care professionals (American Animal Hospital Association, 2009; Brown and Silverman, 1999). The development of trust is shaped by the communicative interaction and clients want to voice questions and concerns but be confident in the practitioners' professionalism and overall decision making capabilities (Grand *et al.,* 2013).

Value co-creation is an area of service quality theory which has not been applied to the animal healthcare sector despite its apparent importance to client loyalty and consequently business success. Improvements in the maintenance of medical recording techniques and accessibility of practices resulting from increased industry corporatisation (Lee, 2006; Williams and Jordan, 2015) appear to facilitate client movement from one healthcare provider to another, ultimately diminishing loyalty. Clients are familiar with switching allegiance in many other areas of service provision which, combined with an increase in public awareness of veterinary medicine due to a plethora of veterinary television programmes and ease of online searches, further weakens practice loyalty. This is exacerbated by an industry move to larger practices where clients do not have the opportunity to form all-important bonds with an individual veterinarian who they may see at every visit (Lee, 2006). Continuity of care in human medicine, meeting client expectations and the development of strong relationships between the patient and medical practitioner is known to improve treatment compliance and outcomes (Bell *et al.,* 2002; Cabana and Jee, 2004; Safran *et al.,* 2001). Equally, unmet client expectation has been demonstrated to contribute to patient dissatisfaction and increased risk of negligence litigation (Bell *et al.,* 2002), suggesting a comparable risk for veterinary medicine and animal healthcare practice. In the animal healthcare industry client loyalty can no longer be easily guaranteed and customers will readily change service providers in pursuit of better value and higher service quality. In this respect the animal healthcare sector has not kept pace with developing client behaviours and is seen to have an over-reliance on historically successful models of customer loyalty (Lee, 2006; Lowe, 2009) which fail to consider changes in client expectations of service.

Comparable human healthcare sectors have long recognised the significance of service quality and the field has been subject to considerable inquiry (Vogus and McCelland, 2016). In direct contrast, animal healthcare practitioners provide successful and functional outcome driven service to clients but have yet to acknowledge the full importance of service quality to business sustainability and success. The failure of the

animal healthcare sector to identify with modern models of service provision is thought by industry commentators to be adversely affecting advancement of the industry and resultant business viability (Lowe, 2009; Williams and Jordan, 2015). Knowing what clients want and expect, and managing client expectations are pre-requisites for service fulfilment (Lisch, 2014), the lack of such knowledge about the animal healthcare sectors constitutes a significant opportunity for empirical research.

Research Gap

As an established service sector, the animal healthcare industries have yet to recognise the importance of service quality to their client and the potential significance of value co-creation to the sector. Service perception has been shown to be important in human healthcare and maintaining the client-provider relationship is known to influence treatment outcomes. There is limited assessment of service quality perceptions within animal healthcare stakeholders and the aim of this paper was to explore the role of value co-creation in the way service provider groups construct their notion of service-quality. Specifically, the objectives were:

- to understand how clients, veterinarians and paraprofessionals view the elements of animal health service delivery;
- to compare the service perceptions in the context of value co-creation and
- to assess construct service dimensionality in the context of value co-creation for the animal healthcare sector in the UK

Service provision was evaluated from the perspective of the animal healthcare stakeholder groups; defined as the client, the veterinarian and the paraprofessional, to enable the investigation of service quality perception and the relevance and potential application of value co-creation to this sector.

Method

The mixed-method approach underpinning this study led to the method being implemented in two phases. Phase One was qualitative in nature and comprised a series of semi-structured depth interviews (*n=13*) of the three stakeholder groups; clients, paraprofessional and veterinarians. Phase Two was quantitative and involved surveying of professional veterinarians and a range of paraprofessionals including veterinary

nurses, veterinary pharmacists and musculoskeletal practitioners (*n=271*). The overall method incorporated the views of the key stakeholder providers in the animal healthcare sector and constitutes a representative sample of sector participants. The lack of animal healthcare service literature presented a clear challenge to the study and the decision to adopt a mixed methods strategy was intended to lessen these difficulties (Lisch, 2014).

The qualitative research in Phase One was carried out using depth interviews to confirm the conceptual base for the study, describe dimensions of service quality for the animal health sector and to inform the quantitative survey. Results from the qualitative phase of investigation, in combination with the limited animal health literature and comparable human health service literature were used to identify and validate questionnaire items for testing in Phase Two of the study. The purpose of the Phase Two survey was to test the value sets indicated by the output of the qualitative analysis and, through data reduction techniques, to develop a conceptualization of service for comparison between the professional stakeholder groups (veterinarians and paraprofessionals).

The interviews undertaken in Phase One employed the Critical Incident Technique (CIT) and the principles of Grounded Theory (GT) informed the analytical approach. CIT encouraged the respondents to draw on memorable events and encounters (Bitner *et al.,* 1990) bringing data rich content to the research (Hughes *et al.,* 2007). CIT has had widespread and effective use in human health service research including work in sectors such as dentistry (Victoroff and Hogan, 2006) and nursing (Keating, 2004), so can be an appropriate method to investigate service provided by equivalent animal health professionals. GT was used to provide systematic and flexible working guidelines to enable effective analysis of qualitative data with an iterative strategy and so the construction of emergent theory (Charmaz, 2014). This technique has been widely utilised within qualitative research in human healthcare (Higginbottom, 2014; Lingard *et al.,* 2008; Ononeze *et al.,* 2009) and was therefore valuable to this study.

The interviews were transcribed and scrutinized immediately post-interview, in accordance with GT methodology (Charmaz, 2014), to ensure that each discussion informed the next. Transcripts were analysed using the Qualitative Data Analysis (QDA) software package QRS NVivo©, enabling the identification of themes within the data set (Corbin and Strauss, 2008; QRS NVivo©, 2014). The content analysis facility in

NVivo© was used to identify elements most closely aligned with elements of value co-creation, *communication* and *integrated care*, selected following thematic analysis and based on animal and relevant human health service literature. This analysis was undertaken to facilitate deeper understanding of the nomenclature associated with service quality in the animal health sector and to underpin the construct validity of the survey instrument.

Results of the qualitative Phase One interviews permitted the development of the survey instrument, which was modified for each of the professional stakeholder groups. Though comparable items were used for each group, this customisation involved using the language and terminology to suit each sample group. The survey instrument comprised 24 items covering nine dimensions identified from the literature and the qualitative phase of the study, with each dimension was covered by two or three items to enhance validity (Fowler, 2014). After a pilot study (*n=10*), the survey was implemented in work places and through attendance at events and venues, including professional training days and conferences. The survey questionnaire was administered face-to-face and the data were subsequently recorded in SPSS (*version 24*). After scrutiny of descriptive data, Exploratory Factor Analysis (EFA) was used to identify the key factors. If the questions measure the same underlying dimensions, then it would be expected that these specific questions would have a high correlation, in practice addressing different elements of the same factor. *Bartlett's Test of Sphericity* was used to indicate if the correlation matrix is significantly different ($p<0.05$) from the identity matrix and to determine the presence of patterned relationships within the data. Further measures of validity were required to ensure questionnaire validity for EFA and the critical assumptions underlying factor analysis were tested using the *Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy*. The KMO value should exceed the recommendation of 0.6 (Kaiser, 1960) to determine the reliability of the scale, as values closer to one indicate patterns of correlations which are relatively compact, indicating distinct and reliable factors. Determination of the questionnaire research instruments' internal consistency and assessment of the reliability of scales was measured using Cronbach's alpha (Field, 2013).

Variable were subjected to EFA using Principal Component Analysis (PCA) as the extraction method and Varimax rotation with Kaiser normalization. Varimax rotation was chosen to enable for better

interpretation, to determine an optimal simple solution and to help to describe patterns observed within the data. Factor loadings were evaluated on two criteria: the significance of the loadings and the simplicity of the factor structure. Items were excluded from factors according to guidelines developed by Churchill (1979) and Kim and Mueller (1978), namely: loadings of less than 0.4, or cross-loadings greater than 0.35 on two or more factors. All factors with eigenvalues greater than 1.0 were extracted.

Results

Phase One

The dimensions of service quality in animal healthcare services were described through thematic analysis completed in the NVivo© using the interview data. Nine underlying themes on service delivery in the animal healthcare sector emerged and these were defined as: *integrated care*, *communication*, *trustworthiness*, *value for money*, *outcome driven service*, *empathy*, *bespoke*, *accessibility* and *tangibles* (Table 1). Dimensions of *integrated care*, *communication* and *trustworthiness* were strong emergent themes from all stakeholder respondents, this was also seen in the content analysis results (Table 2). Each of these three themes were further explained (through thematic analysis) to express the desirable characteristics of the animal healthcare professionals in the context of service quality. *Integrated care* defines the ability and readiness of professionals to engage and work with others (including other professionals and clients); working with an open-mind and pro-active manner, having a clear comprehension of the expertise of others and therefore able to actively seek to use the technical skills and knowledge of other specialist practitioners when required. *Communication* indicates respectful and open lines of two-way communication throughout the service encounter; the professional can relate to different clients, be consistently professional but also can develop rapport. *Trustworthiness* encompasses a range of skills extending from the technical ability and skillset of the professional, to ethical decision making regarding animal treatment options. This dimension also incorporates professional transparency in technical skills and abilities therefore instilling confidence in the client. The qualitative phase gave valuable insight into the how to interpret the service quality and value co-creation in the sector.

Table 1: Dimensions and definitions of service quality in animal health services (qualitative interview results)

The matrix coding in NVivo© facilitated a word count analysis (Table 2) the results of which indicated the emergent themes to be key dimensions of value co-creation in the animal healthcare sector and re-iterated elements central to value co-creation (including *integration*, *communication* and *trust*).

Table 2: Content analysis of interview data

Phase Two

Exploratory Factor Analysis enabled identification of the inter-relationship between variables and to determine the main factors accounting for the observable relationships within the data. Reducing dimensionality through EFA condensed both measurable and observable variables to a few latent variables sharing a collective variance. The results from *KMO* (0.813) and *Bartlett's Test of Sphericity* (χ^2: 1259.787, df:2; sig: .000); were supportive of the data being appropriate for EFA. Variables loaded satisfactorily on to seven latent factors, explaining 59.43% of the total variance. Cronbach's alpha was used as a determinant of internal consistency and assessment of reliability of scales and six of the seven latent factors measured over the recommended Cronbach's alpha score of 0.7 confirming consistency and reliability of the research instrument used within the study. Table 3 shows the construct strengths for the seven latent factors extracted from the 24 variables, and the loadings for the principal factor to which each variable contributes.

The seven latent factors were individually named to best represent the variables within each factor and were labelled as: *Trust, communication, professional rapport, responsiveness, animal focus, credibility* and *access.* The results from the EFA indicated congruence with the qualitative data output.

Table 3: Exploratory Factor Analysis: Elements of Animal Health Service (Professional Stakeholders)

To appraise potential differences between the two professional stakeholder groups (paraprofessional and veterinarian) EFAs were undertaken for each of the sub-groups. Each dataset met the criteria for EFA and the results are summarised in Table 4. Results from the veterinarian group loaded onto eight factors and the paraprofessional groups generated a seven factor solution. This analysis was completed to identify

potential differences between the two professional groups but, due to the smaller sample size of veterinarian group as compared to the paraprofessional, factor naming was not considered to be beneficial to understanding.

Table 4: Exploratory Factor Analysis: Elements of Animal Health Service by Professional Stakeholder Group

Discussion

The first objective was to understand how the stakeholder groups view the elements of animal health service delivery. NVivo© and content analysis results indicated differences between the three groups, veterinarians, paraprofessionals and clients, on the issues of communication and collaboration. This analysis suggests congruence between paraprofessionals and clients and these two groups expressed opinions that are quite distinct from the perceptions of veterinarians. EFA for the veterinarians and paraprofessionals (Table 4) was suggestive of differences in the perception of service quality held by these stakeholders. A finding which is worthy of further, more detailed investigation.

Overall, the qualitative results from thematic and content analysis for all three stakeholder groups (clients, veterinarians and paraprofessionals), highlighted strong emergent dimensions of *integrated care* and *communication* to be most important factors. An interesting outcome was the strength of the communication focused factors in the veterinarians sub-group (Table 4). This was somewhat at odds with the emphasis that is indicated by the interview analysis with clients, veterinarians and paraprofessionals (Table 2). This may be explained as clients did not participate in Phase Two of the study and may be suggestive of a mismatch between veterinary perception of client communication and actual client feedback, presenting a distinct area of interest which warrants further investigation. Dimensions of *integrated care* were evident for all professional groups within thematic analysis, content analysis and EFA. Interdisciplinary care or multi-disciplinary team (MDT) working techniques are frequently and effectively used within human medicine (Atwal and Caldwell, 2005; Borrill and West, 2002) as paraprofessionals are fully integrated and valuable team members (Borrill *et al.,* 1999). Conversely in the animal healthcare

sectors the paraprofessional is not so well utilised within the provision of service. Work completed in the Lowe Report (2009) established that the use of paraprofessionals is poorly developed within the veterinary and animal healthcare field. This is despite a significant amount of literature advocating integrated care (Lowe, 2009; Lowe, 2010; Mulligan and Doherty, 2008; Reader, 2012; Sharp, 2008). Results from the present study concur with the literature on the importance of integrated care to the sector, reflecting the need for the development of effective MDT working from the perspective of all sector stakeholders.

The second objective was to assess the service perceptions of the role of value co-creation held by veterinarians and paraprofessionals. Dimensions of value co-creation were evident in the stakeholder groups surveyed, with factors of *trust*, *communication* and *professional rapport* identified as essential components of service quality within the sector. Outcomes from the study emulate similar findings in the human healthcare literature, where treatment decision making is notoriously challenging due to the uniqueness of each service encounter (Vogus and McCelland, 2016) making healthcare service provision complex, intangible and intrinsically based on client value co-creation. Development of patient-centric care is an essential component of human healthcare (Rathert *et al.,* 2013) with value co-creation factors of communication, empathy and holistic care linked to patient satisfaction (Bendall-Lyon and Powers, 2004; Thiedke, 2007). The role of value co-creation in the provision of animal healthcare was affirmed in the results from the present study, supporting the available animal health literature and indicating the usefulness to service providers in this area who embrace value co-creation within the provision of service.

The third objective was to propose a construct of service dimensionality in the context of value co-creation for the animal healthcare sector in the UK through an understanding of the veterinarians and the emergent group of paraprofessionals. Themes of value co-creation were highly pertinent to both professional groups but differences between the relative importance of some factors is evident. These could be accounted for by the range of different practitioners (veterinary nurses, musculoskeletal workers and animal health advisors) surveyed within the paraprofessional group and the different working practices of the paraprofessional versus the veterinarian. The paraprofessional does not appear to be as heavily restricted by time constraints as the veterinarian (Coe *et al.*, 2010), which may allow for more effective involvement

and engagement of the client within the service process. An understanding of these difference from the client perspective would provide valuable insight.

Conclusion

Business models within the animal healthcare sector are rapidly developing, as are client demands and expectations. To match the requirements of the modern client the animal healthcare industry should advance awareness and application of marketing theory, in-line with other comparable health sectors. This study has proposed value co-creation as a significant tool to bridge the potential gap between client experience of service and professionals' perception of the service provided and as a means to enhance business competitiveness.

Industry implications and contribution to knowledge

The ultimate purpose of investigation into models of service quality within the animal health sector is to be able to develop workable practices and solutions for recommendation to industry. These practices may need to consider the level of involvement or relative value of the animal (financial or emotional value) to the client and the potential impact on client behaviour. Findings from the study and the extant literature suggest that the factors affecting client active engagement in the service encounter and so co-creation of value are multi-faceted and complex. These results could enable further determination of value co-creation within the service encounter and therefore acceptance of the usefulness of marketing theory unique to this sector. The study makes a novel and specific contribution to theoretical application of marketing theory to the animal healthcare sector which could be developed into practical and workable solutions for animal health businesses which are currently experiencing considerable development and change (Lowe, 2009: Williams and Jordan, 2015). These solutions would bring the enhanced client loyalty, improved animal treatment compliance and outcome and the ensuing benefits of improved business success. Furthermore, the solutions proposed by this study could include the development of integrated care models tailored to the sector, models of multidisciplinary team working like those established in equivalent human healthcare provision. The study makes a wider contribution to the service quality research as value co-creation has been considered as an important element of service quality in analogous and equivalent human healthcare professions but not for the animal healthcare industry in the UK.

Recommendations for future study

It should be noted that the qualitative phase of the study included three relevant stakeholder groups of clients, veterinarians and paraprofessionals whereas the survey was based on the two professional groups and excluded the client group. It is therefore recommended that the survey be repeated to include the client group to gain additional insight into service perception. Value co-creation was emergent from the qualitative and quantitative phases but warrants further specific qualitative analysis to gain a true and comprehensive understand of its relevance and application to this sector; the format of which would be informed by the results from this study. Future work should also focus on the development of multidisciplinary team working models to embrace value co-creation through operable and practicable solutions within animal healthcare business.

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Value co-creation in high involvement services: the animal healthcare sector

Table 1: Dimensions and definitions of service quality in animal health services (qualitative interview results)

Nine dimensions and definitions of service quality in animal health services

Dimension	Definition
Integrated care	Ability and readiness to work with other healthcare professionals in an open -minded manner
Communication	Preparedness to communicate openly with client, respectfulness, rapport and professional interactivity
Trustworthiness	Integrity (honesty and morality) and competence (training, skills and technical ability) of practitioner
Value for money	Willingness to provide comprehensive service within a justifiable pricing strategy
Outcome driven service	Dependable and accurate service which is a result focused provision
Empathy	Caring and compassionate service with due regard for clients' needs and animal health and welfare
Bespoke	Custom tailored service providing detailed individualised attention
Accessibility	Geographical proximity of resources and service; accessibility of professionals and ease of contact
Tangibles	Physical resources, facilities, equipment and appearance of professionals

Table 2: Content analysis of interview data

Content Analysis of Interview Data				
Dimensions of Service	**Content Analysis based on word frequency**			**Total**
	Veterinarian	Client	Para-professional	
Integrated care	5,205	7,951	14,678	27,834 (22%)*
Communication	2,535	8,194	9,292	20,021 (15%)*
Trustworthiness	2,732	8,216	6,173	17,121
Value for money	7,519	2,448	5,885	15,852
Outcome driven service	2,432	5,983	3,491	11,906
Empathy	2,016	4,974	4,375	11,365
Bespoke	3,597	4,207	3,338	11,142
Accessibility	2,505	3,558	4,362	10,425
Tangibles	630	0	899	1,529
				127,195

* % of total word count

Table 3: Exploratory Factor Analysis: Elements of animal health service (professional stakeholders)

Exploratory Factor Analysis: Elements of Animal Health Service (Professional Stakeholders)

Factor	1	2	3	4	5	6	7
Trust (α = 0.843)							
Continuity of care	.530						
Equipment	.646						
Animal welfare	.428						
There is time for compassion	.538						
Price reflects service provided	.730						
Clients are not faced with unexpected costs	.705						
Communication (α = 0.749)							
There is time for compassion		.453					
It is easy to talk to clients		.859					
Clients understand		.805					
Client relationship with professionals is good		.625					
Professional rapport (α = 0.750)							
I actively seek to work with others			.461				
Clients are made to feel welcome			.458				
It is important to stay up to date			.770				
Rapport development			.798				
Responsiveness (α = 0.708)							
Team working				.418			
Professional appearance				.678			
Prompt response to calls				.688			
Second opinion				.461			
Animal focus (α = 0.721)							
Expectations of animal handling					.557		
Clients expect out of hours care					.770		
Credibility (α = 0.726)							
Work within own specialism						.534	
Expectations of animal handling						.430	
Clients expect me to take control of the situatio						.650	
I provide health plans						.580	
Access (α = 0.678)							
Location is important							.795
Clients can contact me by email and text							-.481
% of variance explained	11.68	10.58	9.18	8.05	7.82	6.78	5.34
Cumulative % of variance explained	11.68	22.26	31.44	39.49	47.31	54.09	59.43
Sample: n = 271; all respondents							

α=Cronbach's alpha

Table 4: Exploratory Factor Analysis: Elements of animal health service by professional stakeholder group

Exploratory Factor Analysis: Elements of Animal Health Service by Professional Stakeholder Group	
Veterinarians	**Paraprofessionals**
EIGHT FACTOR SOLUTION	
FACTOR 1 (17.12 of variance) 12 Easy to talk to clients on their level 13 Clients able to understand what I am telling them 11 Time to treat clients with compassion 20 Expect out of hours' care 22 Clients can contact me by text/email 19 Clients feel welcome *10 Animals' welfare always main priority* *16 Clients not faced with unexpected costs*	**FACTOR 1** (11.37 of variance) 15 Price reflects service given 16 Clients not faced with unexpected costs 11 Time to treat clients with compassion 06 Equipment is up to date, clean & works 03 Always able to provide continuity of care
FACTOR 2 (9.71 of variance) 18 Actively seek to work with others 05 Health professionals work together 21 I am comfortable with second opinion	**FACTOR 2** (9.70 of variance) 12 Easy to talk to clients on their level 13 Clients able to understand what I am telling them *14 My relationship with clients is good*
FACTOR 3 (8.53 of variance) 09 Location is important to clients 07 Clients expect clean & tidy appearance *14 My relationship with clients is good*	**FACTOR 3** (9.05 of variance) 23 It is important to stay up to date 24 Developing a rapport with clients is important 18 Actively seek to work with others
FACTOR 4 (8.30 of variance) *10 Animals welfare always main priority* 08 Calls or emails are promptly responded to 03 Always able to provide continuity of care 24 Developing a rapport with clients is important *23 It is important to stay up to date*	**FACTOR 4** (8.86 of variance) 21 I am comfortable with second opinion 05 Health professionals work together 19 Clients feel welcome 07 Clients expect clean & tidy appearance *08 Calls or emails are promptly responded to*
FACTOR 5 (7.87 of variance) 15 Price reflects service given 06 Equipment is up to date, clean & works *16 Clients not faced with unexpected costs*	**FACTOR 5** (7.86 of variance) 02 Excellent animal handling skills 20 Expect out of hours care 10 Animals welfare always main priority
FACTOR 6 (7.04 of variance) 02 Excellent animal handling skills 01 Work within own area of specialism *23 It is important to stay up to date*	**FACTOR 6** (7.73 of variance) *14 My relationship with clients is good* 17 I provide health plans for animals under my care 04 Clients expect me to take control of situation 01 Work within own area of specialism *08 Calls or emails are promptly responded to* *22 Clients can contact me by text/email*
FACTOR 7 (5.61 of variance) 04 Clients expect me to take control of situation *14 My relationship with clients is good*	**FACTOR 7** (6.57 of variance) 09 Location is important to clients *22 Clients can contact me by text/email*
FACTOR 8 (5.17 of variance) 17 I provide health plans for animals under my care	

Italicised text indicates cross loaded items.