The veterinarian's awareness of the expectations and goals of pig farmers

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Acknowledgements

I would like to express my sincere gratitude to Dr. Arie van Nes for his invaluable guidance, input, and patience throughout this entire process. His support has been essential in shaping the direction of this research. Additionally, I would like to thank Hans Vernooij for his valuable input regarding the results of this study.
I am also grateful to Amber Borgonje for her collaboration and for highlighting the farmer's awareness of the goals and expectations of veterinarians, which greatly contributed to the depth of this study. Her results have been incorporated into another study, and the collaboration has been a truly pleasant experience.
Finally, I would like to extend my thanks to all the farmers and veterinarians who participated in the survey. Their contributions were vital to the success of this research.

Abstract

This study investigates the relationship between veterinarians and pig farmers, focusing on the alignment of priorities of the farmer and the veterinarian's role. The purpose of the research is to examine whether veterinarians are aware of the goals and expectations of pig farmers. Data were collected through a survey distributed to both pig farmers and veterinarians, analyzing their perspectives on general topics and on key topics such as medication use, growth and welfare.

The results show a significant gap between the priorities of pig farmers and veterinarians' expectations, particularly in the areas of growth and welfare. Despite this misalignment, most farmers expect to be in agreement with their veterinarians, highlighting a disconnect in communication.

The conclusion drawn from this study is that communication between veterinarians and pig farmers is insufficient, and veterinarians are not fully aware of the farmers' goals. This gap hinders the effectiveness of the advisory role that veterinarians seek to fulfill. To improve outcomes, veterinarians must adopt better communication strategies and focus on understanding the individual needs and priorities of farmers. Further research is needed to explore practical ways to enhance veterinarian-farmer relationships and close this communication gap.

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Introduction

Effective communication and understanding between veterinarians and client are essential for achieving optimal health outcomes and farm productivity. Studies in veterinary medicine indicate that veterinarians who utilize strong communication skills can enhance important results, such as compliance with their recommendations and overall client satisfaction (Artemiou et al., 2014; Sorge et al., 2010; Derks et al., 2012).

Effective communication begins with a clear understanding of one another. Therefore, it is very important to listen actively to the motivation and goals of the farmer. *Derks et al.* (2013) conducted research on veterinary awareness of the goals and expectations of dairy farmers. The study revealed that veterinarians believed they were aware of farmers' goals and expectations, but this perception was not accurate at all. The research of *Lam et al.* (2011) shows that dairy farmers find their veterinarian's advice the most reliable, but veterinarians often misjudge the motivation of dairy farmers, leading to their advice being followed less frequently. This research also shows that the expectation regarding the veterinarian's proactive attitude varies between farmer and veterinarian. The study by *Hall and Wapenaar* (2012) also shows that the areas of concern for a farm are perceived differently by veterinarians and dairy farmers. Additionally, the role of the veterinarian on the farm is viewed differently by both the farmer and the veterinarian.

The mentioned studies have been conducted with dairy farmers and small animals. Research involving pig farmers has not yet been undertaken. The research of *Alarcon et al*. (2014) shows that like dairy farmers pig farmers also see their veterinarian's advice as the most reliable source. This shows that trust in their veterinarian is not an issue. The research of *Speksnijder et al.* (2015) reaches the same conclusion and shows that there is a high level of trust in the given advice and the knowledge of veterinarians. On the other hand, this research also shows that the given advice is often not followed. Therefore, it is interesting to investigate whether veterinarians are aware of the goals of pig farmers. This research focuses on pig farmers and provides insights from their perspective.

Material and methods

A qualitative research approach was employed to map out the goals and expectations of pig farmers and their veterinarians. This study began with desk research, which involved reviewing existing literature on the goals and expectations of pig farmers and veterinarians. Following this, field research was conducted in the form of surveys containing closed-ended multiple choices questions to further explore these goals and expectations.

Survey Design and Distribution

In July 2022, two separate surveys were developed: one for veterinarians (appendix 1) and another for pig farmers (appendix 2). The surveys were created using the Qualtrics platform and each contained 24 questions. The surveys were designed to be comparable in terms of questions, answers, and structure, facilitating meaningful comparisons between the responses. Most of the questions were multiple-choice, with an option for respondents to provide their own answers if the given options did not fully capture their views. The questions were categorized into four types: general, communication, expectations, and priorities. To match the surveys of the pig farmer and veterinarian, the farmers were asked to provide their place of residence and the name of their veterinarian. The veterinarians were asked for their own name and were provided with the name of the farmer.

The surveys were distributed at the end of July 2022 to Dutch pig farmers and veterinarians through two channels:

1. Social media: Pig farmers and veterinarians were approached via social media platforms such as *Facebook* and *LinkedIn*.
2. Chamber of Commerce Data: Using data obtained from the Chamber of Commerce through *Company.info*, additional pig farmers were contacted via email.

In total, 376 pig farmers were contacted. Only fully completed surveys were included in the final analysis. A total of 39 pig farmers completed the survey. Furthermore, only surveys where a veterinarian's responses could be matched with a corresponding farmer's responses were processed. By October 2022, 25 matched surveys were completed, aligning with the number of surveys found in comparable research by Derks et al. (2013).

Data Processing

The collected data was processed using Excel 2021, where cross-tabulations were created. Additional graphs and tables were generated using Word 2021. Due to the limited number of completed surveys, statistical analysis was not feasible.

Results

The survey was completed by 25 pig farmers and 25 veterinarians.

General

The survey results indicated that the majority of pig farmers fall within 50-65 age category (Figure 1). Specifically, N=16 farmers were in the 50-65 age group. The next largest group (N=6) was the 35-50 age category. The younger age group, 20-35 years, included N=3 farmers. Notably, there were no participants under 20 years old or over 65 years old. 88% of the survey respondents were male (N=22), while 12% were woman female? (N=3).

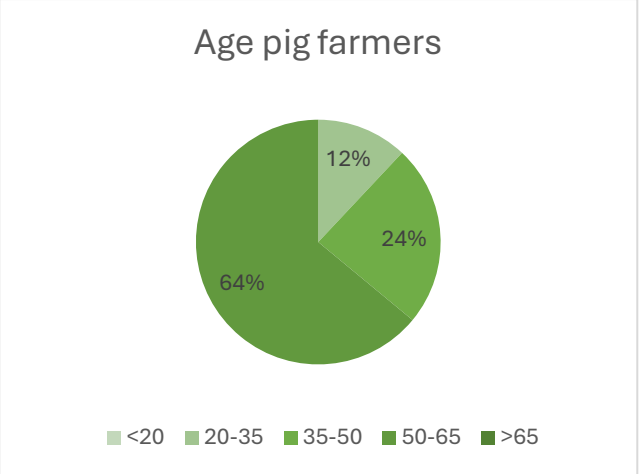

Figure 1 Age of participating pig farmers

Figure 2 shows the distribution of respondents by type of farm. Most of the surveys (N=11) were completed by farmers with a farrow-to-finish system. Additionally, 6 farmers with a breeding farm responded, 5 with a finishing pig farm, 2 with a multi-livestock farm (mixed farm) and 2 with a nucleus farm. The majority of participating pig farmers (N= 8) manage fewer than 1000 pigs.

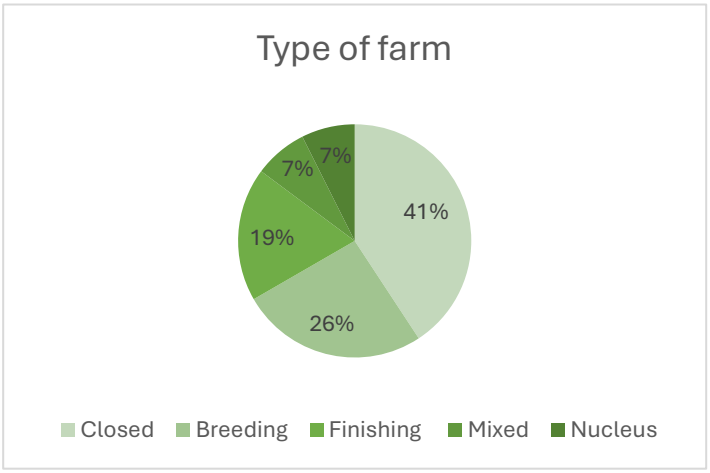

Figure 2 Type of farm of participating pig farmers

Communication

The survey investigated how both farmers and veterinarians perceived their relationship with each other, as shown in Table 1. It was evident that most pig farmers viewed their veterinarians as advisors (N=17), and veterinarians also saw themselves primarily as advisors (N=20). The figures highlighted in green in the table represented the number of surveys where both the farmer and the veterinarian perceived their relationship in the same way, which occurred in 13 surveys.

	Farmer					
Veterinarian	Advisor	Controller	Friend	Business partner	Voice of the animals	Total
Advisor	13	2	2	3		20
Controller	2			1		3
Friend						0
Business partner	2					2
Voice of the animals						0
Total	17	2	2	4	0	

Table 1 Role of the veterinarian. The farmer's responses are represented along the horizontal axis, while the veterinarian's responses are displayed along the vertical axis.

The survey further examined how farmers wished to see their relationship with veterinarians and how veterinarians wanted to be perceived by farmers. Five options were provided. First, as an advisor to convey knowledge. Second, as an inspector to detect problems in a timely manner. Third, as a friend to consult with. Fourth, as a business partner to achieve the best financial results. Finally, as the voice of the animals to ensure their welfare. This is showed in Table 2. It was observed that most farmers preferred their veterinarians to act as advisors (N=17). Similarly, the majority of veterinarians (N=20) also wished to be seen as advisors by the farmers. In contrast, farmers and veterinarians were aligned 12 times in their perceptions of how veterinarians wished to be seen in their relationship.

Table 2 perceptions of ideal roles: how farmers wish to see their veterinarians horizontally and how veterinarians wish to be perceived by the farmer vertically.

	Farmer					
Veterinarian	Advisor	Controller	Friend	Business partner	Voice of the animals	Total
Advisor	12	2	2	3		19
Controller						0
Friend	2			1		3
Business partner	3					3
Voice of the animals						0
Total	17	2	2	4	0	

The survey then explored who initiates contact, specifically focusing on whether the farmer takes the lead, and how each party perceives this interaction. The results showed that both farmers and veterinarians disagree with the idea that farmers rarely or never contact veterinarians when a specific

problem occurs. In 10 out of the 25 matched pairs, farmers and veterinarians agreed on how often the farmer contacts the veterinarian. However, the remaining 15 pairs did not share the same view on this matter.

Table 3 Initiation of contact by farmers towards veterinarians: the table shows the frequency of this occurrence according to farmers (vertical axis) and veterinarians (horizontal axis)

	Farmer				
Veterinarian	Never	Seldom	Sometimes	Often	Total
Never					
Seldom					
Sometimes			3	5	8
Often			10	7	17
Total			13	12	

Priorities

In the section on priorities, several questions address the priorities of farmers. These questions examine what the farmers consider to be their main priorities and what the veterinarians expect to be.

The first question asked respondents to identify the three most important focus areas for farmers in general. Ten different options were provided, along with an open-ended option. The results are described in table 4. The farmers' responses are shown in the first columns, followed by the veterinarians' responses. The veterinarians indicated what they expected to be the three main focus areas of the farmer. These are presented in both numbers and percentages.
Notably, 16% of the farmers included preventive care in their top three priorities, while only 8% of veterinarians expected it to be a top priority for farmers. Veterinarians most commonly anticipated that profit would be a top three priority for farmers, with 24% of veterinarians expecting this. However, only 12% of farmers actually considered profit to be one of their three most important focus areas.

Table 4 Top three priorities of the farmer and expectations of the veterinarian.

	Farmer		Expectation veterinarian	
	Number	Percentage	Number	Percentage
Average daily growth	6	8,00%	11	14,67%
Medication use	9	12,00%	2	2,67%
Preventive care	12	16,00%	6	8,00%
Number of piglets per sow	5	6,67%	16	21,33%
Nutrition	6	8,00%	2	2,67%
Public health	2	2,67%	3	4,00%
Fertility	5	6,67%	6	8,00%
Welfare	8	10,67%	6	8,00%
Profit	9	12,00%	18	24,00%
Disease treatment	9	12,00%	1	1,33%
Other	4	5,33%	4	5,33%
Total	75	100,00%	75	100,00%

The first specific topic addressed in the survey focuses on the growth of the animals. The response options included: daily growth of piglets, final weight, birth weight, health, weaning weight, feed conversion, and an option to provide an answer (other). Table 5 illustrates what the farmer regarded as the most important factors related to growth and what the veterinarian anticipated would be deemed most important by the farmer. 4 out of 25 coupled farmers and veterinarians gave an equal answer. The answer that farmers selected most often was health. In contrast, feed conversion ratio and daily growth of piglets were expected by the veterinarians to be considered the most important topics by farmers. The farmer who filled out the option ''other'' considered the combination of weights to be the most important. The answer ''other'' was chosen by two veterinarians, and both indicated that optimizing profit is a priority.

Table 5 Priority regarding growth. This table displays the number of matching and differing responses between the farmer and the veterinarian's expectations regarding growth. The farmer's responses are represented along the horizontal axis, while the veterinarian's responses are shown on the vertical axis.

	Farmer						
Veterinarian	Daily growth of piglets	Final weight	Birth weight	Health	Weaning weight	Feed conversion	Other
Daily growth of piglets			1	5	3	1	
Final weight						1	
Birth weight							
Health			1	1			
Weaning weight							
Feed conversion				5	1	3	1
Other			2				

The study examined whether the farmer expected to align with the veterinarian. Questions were posed to determine if the farmer anticipated being on the same wavelength as the veterinarian. To this end, the survey asked the farmer about his points of interest concerning growth and what he believed would be the veterinarian's points of interest (table 6). In summary, Table 6 explored the farmer's expectations regarding the veterinarian's perspective. In 16 instances, the responses matched, indicating that the farmer expected to find the same priority as the veterinarian.

Table 6 This table presents the number of matching and differing responses between the farmer's priority choices (displayed horizontally) and the farmer's expectations of the veterinarians regarding the topic of growth (displayed vertically).

	Farmer						
Expectation	Daily growth of piglets	Final weight	Birth weight	Health	Weaning weight	Feed conversion	Other
Daily growth of piglets			2	1		1	
Final weight							
Birth weight			1		1		
Health			1	10	1	1	
Weaning weight					2		
Feed conversion						3	
Other							1

The second highlighted topic was medication use. Table 7 illustrates what the farmer considers most important regarding medication use and what the veterinarian expects to be most important according to the farmer. In this case, N=9 paired farmers and veterinarians provided matching answers, while N=16 gave differing responses. Vaccination (N=10) was the most frequently selected answer by the farmer. The veterinarians anticipated that the use of antibiotics (N=9) and vaccination (N=9) would be regarded as the most important topics according to the farmer. The "other" answer was chosen by N=4 farmers and N=7 veterinarians. Among these, N=3 farmers indicated that minimizing medication use was the most important factor. Additionally, N=1 farmer stated that a low daily dosage for animals was the most important consideration. Of the veterinarians, N=4 indicated that they expected efficacy to be the most important factor. N=2 stated that they anticipated costs would be the most important consideration. N=1 veterinarian expected that the farmer would consider it most important to have minimal work involved.

Table 7 Priority regarding medication use. This table displays the number of matching and mismatched responses between farmers (horizontally) and the veterinarians' expectations regarding medication use (vertically).

	Farmer				
Veterinarian	Antibiotic use	Herd-level treatment protocol	Herd-level health protocol	Vaccination	Other
Antibiotic use	4		2	1	2
Herd-level treatment protocol					
Herd-level health protocol					
Vaccination	2			5	2
Other	1		2	4	

Questions were also posed regarding medication use to determine whether the farmer expected being aligned with the veterinarian. The results are presented in Table 8. In 16 instances, the responses matched, indicating that the farmer expected to be on the same page as the veterinarian. The farmer expected herd-level health protocol (N=8) as most important topics according to the veterinarian. Three times the answer ''other'' was filled in by the farmer and the expectation about the veterinarian. In 2 cases, something really different was meant namely, both pig farmers considered the minimal use of medications to be the most important and expected that their veterinarian would believe that medications should be used when necessary.

Table 8 This table presents the number of matching and differing responses between the farmer's priority (horizontally) and what the farmer expected from the veterinarians about the topic medication use (vertically).

	Farmer				
Expectation	Antibiotic use	Herd-level treatment protocol	Herd-level health protocol	Vaccination	Other
Antibiotic use	2			2	
Herd-level treatment protocol	1			1	
Herd-level health protocol	3		4	1	
Vaccination	1			6	
Other					4

The topic of public health was examined. Table 9 displayed what farmers considered important compared to what veterinarians expected farmers to prioritize. In total, N=14 linked farmers, and veterinarian provided the same response. Farmers identified antibiotics use as the most important public health issue (N=18). Veterinarians also expected that farmers to prioritize this (N=20).

Table 9 Priority regarding public health: this table displays the number of matching and differing responses between the farmer (horizontally) and the veterinarian's expectations concerning public health (vertically).

	Farmer					
Veterinarian	Antibiotic use	Hygiene	Mandatory reporting of animal diseases	Environment	Transport	Other
Antibiotic use	14	3	1	2		
Hygiene	1					
Mandatory reporting of animal diseases	3			1		
Environment						
Transport						
Other						

It was also assessed for the topic public health whether the farmer expected to be on the same page as the veterinarian. 20 out of 25 (N=20) participant farmers expected to be on the same page as their veterinarian. The farmer expected that the vet considers antibiotic use to be the most important in terms of public health (N=13).

Table 10 This table presents the number of matching and differing responses between the farmer's priority (horizontally) and what the farmer expected from the veterinarians about the topic public health (vertically).

Expectation	Antibiotic use	Hygiene	Mandatory reporting of animal diseases	Environment	Transport	Other
Antibiotic use	13					
Hygiene	1	3				
Mandatory reporting of animal diseases	4		1			
Environment				3		
Transport						

Other						

The next section analysed what farmers considered the most important aspect of fertility. In 8 out of 25 cases, the farmer and veterinarian gave the same answer, indicating agreement on what the farmer found most important. The majority of farmers (N=9) identified production numbers as their top priority in fertility, and veterinarians anticipated this in 16 cases, expecting farmers to prioritize production numbers as well. A total of N=2 farmers and N=4 veterinarians selected the "other" option. There was one matching response where both the farmer and the corresponding veterinarian indicated "other" because they felt the question was not applicable. The other farmer who also chose "other" provided the same response. Additionally, N=3 veterinarians noted that a combination of multiple options was the most important.

Table 11 Priority regarding fertility: this table displays the number of matching and differing responses between the farmer (horizontally) and the veterinarian's expectations concerning fertility (vertically).

	Farmer							
Veterinarian	Number of stillborn piglets	Sows coming into heat	Abortion rate	Production number (piglets/sow /year)	Litter size	Mortality	Litter index (litters/s ow/year)	Other
Number of stillborn piglets								
Sows coming into heat								
Abortion rate								
Production number (piglets/sow /year)	2		1	6	4	1	1	1
Litter size				1		1		
Mortality								
Litter index (litters/sow/ year)		1			1		1	
Other				2	1			1

The survey also assessed whether farmers believed they were aligned with their veterinarian on the topic of fertility. Out of 25 participants, 17 farmers expected to be on the same page as their veterinarian. Most farmers (N=11) expected that their vet would consider production numbers the most important issue in fertility. The answer ‘’other’’ was given twice, and in both cases, the farmers still expected to agree with their vet, but with a different response than the provided options. All the highlighted answers in green indicate agreement.

Table 12 This table presents the number of matching and differing responses between the farmer's priority (horizontally) and what the farmer expected from the veterinarians about the topic fertility (vertically).

	Farmer							
Expectation	Number of stillborn piglets	Sows coming into heat	Abortion rate	Production number (piglets/sow /year)	Litter size	Mortality	Litter index (litters/sow/year)	Other
Number of stillborn piglets	1							
Sows coming into heat		1						
Abortion rate				1				
Production number (piglets/sow /year)	1			7	2	1		
Litter size					3			
Mortality				1	1	1		
Litter index (litters/sow /year)			1				2	
Other								2

The final section of the survey examined the topic of welfare. Table 13 displayed what farmers considered most important and what veterinarians expected the farmers to prioritize. In 4 out of 25 cases, the linked farmers and veterinarians provided the same answer. Farmers identified the absence of diseases as the most important welfare issue (N=13). Veterinarians also expected (N=9) that farmers would consider the absence of diseases to be the most critical factor. The farmer who selected the ''other'' option prioritized animal behaviour. N=3 veterinarians selected the "other" option. One veterinarian expected that the farmer would prioritize normal behaviour, another believed it would depend on the farmer's current issues, and the third anticipated that the farmer would consider a combination of factors important. None of these expectations aligned with the farmer's stated priority.

Table 13 Priority regarding welfare: this table displays the number of matching and differing responses between the farmer (horizontally) and the veterinarian's expectations concerning welfare (vertically).

	Farmer						
Veterinarian	Functional areas piglets	Pigpen size	Social interaction	Ventilation	Eating and drinking places	Lack of diseases	Other
Functional areas piglets							
Pigpen size				2		1	1
Social interaction				1		3	
Ventilation							
Eating and drinking places				1		4	
Lack of diseases		1	2	1	1	4	
Other			1	1		1	

The survey also assessed whether farmers expected to align with their veterinarians on the topic of welfare. Sixteen out of twenty-five (N=16) farmers expected being on the same page as their veterinarian. Farmers expected that veterinarians would consider the absence of diseases to be the most important welfare issue (N=15).

Table 14 This table presents the number of matching and differing responses between the farmer's priority (horizontally) and what the farmer expected from the veterinarians about the topic welfare (vertically).

	Farmer						
Expectation	Functional areas piglets	Pigpen size	Social interaction	Ventilation	Eating and drinking places	Lack of diseases	Other
Functional areas piglets		1					
Pigpen size							
Social interaction			3				
Ventilation				1		1	
Eating and drinking places					1	2	
Lack of diseases				5		10	
Other							1

Discussion

To find farmers, data from the Chamber of Commerce was used, but farmers typically only update this information when there is a change in farm structure, such as during a takeover or partnership. As a result, this method may primarily reach more modern farms. In the survey, the question "How many pigs do you have?" was asked. This question was unclear, as it did not specify what exactly it referred to. There is a significant difference depending on whether the question pertained to sows, the total number of pigs, or finishing pigs, in order to assess the farm size. Therefore, no conclusions could be drawn based on this question.
The structure of the survey for both the farmers and veterinarians is identical, ensuring their responses are quite comparable. The survey was emailed to 369 farmers. The farmers selected to receive the survey were not chosen randomly. Of these, only 39 farmers completed the survey. This resulted in a response rate of 11%. This is low compared to similar studies. The 39 completed surveys were then sent to the relevant veterinarians, and 25 veterinarians submitted their responses. This resulted in a response rate of 64%, which is higher compared to the comparable studies (Derks et al., 2013; Hall & Wapenaar, 2012). In some cases, the same veterinarian collaborated with multiple farmers, meaning some veterinarians filled out the survey more than once, among other factors. This repetition weakens the research. The difference from some other studies is that the responses from farmers and veterinarians are linked (Hall & Wapenaar, 2012). This linkage reduces anonymity, which may be a reason for the lower response rate. On the other hand, linking the results ensures that the responses are more aligned with each other, making the answers more specific.
After the initial distribution, the survey is revised because the response rate was insufficient. There were comments regarding the absence of an open-ended response option. This has been addressed in the revised survey. Only the outcome of the revised survey was used.

The Central Bureau of Statistics states that in 2021, the average age of pig farmers in the Netherlands is 53 years (CBS, 2022). 64% of the responding pig farmers are between the ages of 50 and 65. Therefore, the age of the respondents appears to be representative of pig farmers in the Netherlands.
The survey was completed by 88% men and 12% women. According to the Central Bureau of Statistics, 12% of the employees in the pig farming sector are women and 88% are men (CBS,2018). However, employees are unlikely to respond to a survey sent to the company, it is more likely to be answered by the farm owner. In 2017, 94% of pig farm owners were men and 6% were women (CBS, 2018). It is unclear whether the respondents were farm owners, making it difficult to determine if the survey is representative of pig farmers in the Netherlands. This could have been clarified with an additional question in the survey. Some distinction could still be made based on the question about the number of hours worked in pig farming. However, this is not entirely reliable either.
Additionally, not every farm can answer all questions. For example, a finishing farm cannot respond to questions about fertility. The number of pigs, as mentioned above, also depends on the type of farm, and the counting method plays a role as well. Due to the low response from 25 farms, it is not possible to break down all farms and their numbers. However, separating farm types and the number of sows/pigs would be interesting to assess potential differences based on farm type and the veterinarian's role. Additional research is required to investigate this further.

The next question focused on the veterinarian's role on the farm. This was particularly interesting as the results were linked to one another. It emerged that the majority of farmers (N=17) and veterinarians (N=20) regarded the veterinarian on the farm as an advisor. This is in line with the study of *Alarcon et al.* (2014) on diary farmers. When looking at how farmers and veterinarians would prefer to see their relationship, only 12 were in agreement. There was also a farmer who wanted to see the veterinarian ‘’as a business partner’’, while the veterinarian preferred to see the farmer as a friend. These are opposite perspectives. Interestingly, no veterinarian saw themselves as ‘’a friend of the farmer’’, although three veterinarians expressed that they would like to be.

Additionally, it was noticeable that no farmer or veterinarian saw themselves as the ‘’voice of the animals’’ or wanted to be in that role. It was striking how differently the actual role of the veterinarian, and the desired role were perceived. It would be beneficial to discuss this openly to allow veterinarians to better address these expectations.
The veterinarian is most commonly seen as an advisor and also wishes to be viewed as one. But what is needed to truly fulfill this role? First, it is crucial to understand the farmer's motivations and goals. From this understanding, a sense of empathy can develop, allowing the farmer to feel heard and listened to. Only from this foundation can advice be given that truly resonates with the farmer's needs. This approach increases the likelihood that the advice will be followed. Farmers often sense they lack meaningful interaction with veterinarians and do not feel acknowledged, which hinders their relationship. Veterinarians tend to operate within a problem-solving framework, where the farmer presents an issue, and the veterinarian tries to fix it. This approach overlooks the important step of listening to why the issue is a problem and considering its emotional impact on the farmer. By showing more empathy and addressing these concerns, farmers are likely to feel more emotionally engaged (Bard et al., 2017).

From the survey, it emerged that both farmers and veterinarians believe that the farmer often or sometimes approaches the veterinarian with a specific question or problem. 10 out of the 25 paired farmers and veterinarians shared the same opinion on this matter. In the study by *Derks et al. 2013*, this question was also posed to dairy farmers and veterinarians, and the response rate was significantly lower, namely 3 out of the 25 paired with the same answer. This question was somewhat unclear. "Never" is a clear concept, but the distinction between "often," "seldom," and "sometimes" was vague. This could have been better specified in the survey.

After the general and communication questions, the more farm-specific priority questions began. This section started with a general question about the top 3 priorities on the farm. The top three important focus areas were widely distributed among the farmers. Preventive care was the answer that appeared most frequently in the farmers' top three, at 16%. Interestingly, 24% of veterinarians expected profit to be one of the top three priorities, while only 12% of pig farmers felt the same. After that, most veterinarians believed that farmers consider the number of piglets per sow to be important, with 21% of veterinarians holding this view. However, only 6.67% of the farmers placed this in their top 3 most important priorities. This clearly indicates that the priorities of the farmers and the expectations of the veterinarians differ significantly. This is particularly interesting because, in the study by *Alarcon et al.* (2014), it was found that profit is indeed one of the top priorities for pig farmers. Additionally, it is interesting that multiple studies have indicated that farmers do not sufficiently recognize the importance of preventive care and that veterinarians need to focus more on this area (Speksnijder et al. 2015; Friedman et al. 2007). However, this research reveals that pig farmers do, in fact, value preventive care, and it is the veterinarians who are not accurately assessing this priority.

The first specific topic addressed in the survey was pig growth. In this area, farmers and veterinarians were aligned 3 out of 25 times, a proportion of 12%. Eleven farmers considered health to be the most important factor, while only two veterinarians expected this. Veterinarians primarily expected that farmers would prioritize average daily growth (N=10) and feed conversion (N=10) the most. Nevertheless, 17 out of 25 farmers anticipated that they would share the same perspective as their veterinarian. The next topic was antibiotic use. Nine farmers and their veterinarians' expectations were aligned in this area. Farmers viewed vaccinations (N=10) as a priority, while veterinarians expected that farmers would find antibiotic use (N=9) and vaccinations (N=9) to be the most important. More farmers expected to be in agreement with their veterinarians, with 16 out of 25 anticipating alignment. Similarly, a study by *Stevens et al.* (2007) also found that vaccination is regarded as very important. In that study, even 80% of pig farmers viewed vaccination as a measure to reduce antibiotic use.

Regarding the topic of public health, the priorities of farmers and veterinarians were more closely aligned, with 14 out of 25 agreeing. In contrast, 20 farmers expected that their veterinarian would understand their priorities in this area, with antibiotic use being the most frequently chosen concern. The following topic was fertility. This was not an ideal question since not all farms do breed pigs. For these veterinarians, it was merely a guess as to what the farmers would consider most important. Nevertheless, it was notable that 8 farmers and their veterinarians were aligned in their thoughts on this priority, a higher rate than for other topics. Farmers most commonly viewed production numbers as the most important factor (N=9). Veterinarians more often thought that farmers would find this most important (N=16).
Lastly, the topic of welfare was addressed. Four farmers and their veterinarians shared the same view on this topic. "Lack of disease" was the most popular priority, with 13 farmers considering it the most important. Eleven veterinarians expected that farmers would find this the most crucial factor. Interestingly, 6 farmers considered ventilation to be the most important, but none of the veterinarians anticipated this preference among their farmers. Sixteen farmers expected to be aligned with their veterinarians on the topic of welfare, believing that veterinarians would also find "lack of disease" to be the most important factor.

To ensure that a farmer follows advice, several factors are necessary. First, trust is essential. A lack of trust can prevent a farmer from feeling comfortable being vulnerable or engaging in discussion. According to the study by Ritter et al. (2021), farmers express a need for more discussion, but they believe this happens too infrequently. Second, understanding and involvement are crucial. It is important for veterinarians to be aware of the farmer's needs and short- and long-term motivations. Third, involving farmers in the advice process by focusing on their priorities, motivations, and goals is vital. This approach helps build the farmer’s commitment to the veterinarian (Lencioni, 2010; Bard et al., 2017).
Veterinarians are often not adequately trained in communication strategies. Studies on communication generally do not focus specifically on pig farmers and veterinarians. It is necessary to investigate whether the same applies to this group. Furthermore, in this study it is limiting that practical communication strategies for addressing the mentioned issues are not discussed.

Conclusion

This study reveals that veterinarians prefer to be viewed as advisors and strive to project themselves in that role. The study also shows a clear discrepancy between the priorities of pig farmers and the veterinarians' expectations of those priorities. It can be concluded that veterinarians are not fully aware of the goals of pig farmers, particularly in the areas of growth and welfare, where significant differences exist between farmers' priorities and veterinarians' perceptions. Despite these gaps, the majority of farmers expect to be aligned with their veterinarians across all topics.
As seen in comparative studies on dairy cows, there is insufficient effective communication between farmers and veterinarians regarding goals and expectations. To improve communication, it is important to reassess current communication strategies. Further research into the practical relationship between pig farmers and veterinarians could help identify specific areas for improvement. However, this study has provided valuable insight into the communication gap. Simply being aware of this gap could help veterinarians begin to close it through conscious effort.

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Appendix 1 Survey veterinarians

1. In which place is the farm about which you are completing the survey located?

2. What is your name? / What is name of the veterinary practice you work at?

3. What age group do you belong to?
) <35
) 35-50
) 50-65
) 65+

4. What is your gender?
) Male
) Female
) Other

5. In which region do you work?
) North
) Middle
) South
) Abroad

6. How many hours do you work in the pig sector per week?
) 0-10
) 10-20
) 20-30
) 30-40
) >40

7. Do you also work in a sector other than the pig sector?
) No
) Yes, namely

8. How do you view your relationship with pig farmers in general?
) As an advisor, to convey knowledge
) As a business partner, to maximize financial outcomes
) As a friend, to consult with together
) As an inspector, to detect problems in a timely manner
) As the voice of the animals, to ensure their welfare

9. How would you like to see your relationship with your farmers?
) As an advisor, to convey knowledge
) As a business partner, to maximize financial outcomes
) As a friend, to consult with together
) As an inspector, to detect problems in a timely manner
) As the voice of the animals, to ensure their welfare

10. Statement: The pig farmer actively approaches you when there are specific topics they wish to discuss.
    a) Often
    b) Sometimes
    c) Seldom
    d) Never

11. Statement: You actively approach the pig farmer when there are specific topics you wish to discuss.
) Often
) Sometimes
) Seldom
) Never

Please note that the following questions will focus on prioritization. We understand that everything is important. Try to keep the specific farmer/pig farming operation in mind as best as you can.

12. What are the three most important priorities for you as a veterinarian on this farm?
) Average daily growth
) Medication use
) Preventive care
) Number of piglets per sow
) Nutrition
) Fertility
) Welfare
) Profit
) Disease treatment
) Other, namely

13. What do you believe are the three most important priorities for the pig farmer?
) Average daily growth
) Medication use
) Preventive care
) Number of piglets per sow
) Nutrition
) Fertility
) Welfare
) Profit
) Disease treatment
) Other, namely

14. What is the most important priority for you, as a veterinarian, regarding the growth of pigs at this farm?
) Daily growth piglets
) Final weight
) Birth weight
) Health
) Weaning weight
) Feed conversion

) Other, namely

15. What do you think the pig farmer considers the most important aspect regarding the growth of pigs?
) Daily growth piglets
) Final weight
) Birth weight
) Health
) Weaning weight
) Feed conversion
) Other, namely

16. What is the most important aspect medication use at this farm for you as a veterinarian?
    a) Antibiotic use
    b) Herd-level treatment protocol
    c) Herd-level health protocol
    d) Vaccination
    e) Other, namely

17. What do you think the pig farmer considers the most important aspect regarding medication use?
) Antibiotic use
) Herd-level treatment protocol
) Herd-level health protocol
) Vaccination
) Other, namely

18. What is the most important priority for you, in terms of public health?
) Antibiotic use
) Hygiene
) Mandatory reporting of animal diseases
) Environment
) Transport
) Other, namely

19. What do you think the farmer prioritizes the most regarding public health?
) Antibiotic use
) Hygiene
) Mandatory reporting of animal diseases
) Environment
) Transport
) Other, namely

20. What is your priority regarding fertility on this farm?
) Number of stillborn piglets
) Sows coming into heat
) Abortion rate
) Production number (piglets/sow/year)
) Litter size

) Mortality
) Litter index (litters/sow/year)
) Other, namely

21. What do you think the pig farmer's main priority is regarding fertility?
) Number of stillborn piglets
) Sows coming into heat
) Abortion rate
) Production number (piglets/sow/year)
) Litter size
) Mortality
) Litter index (litters/sow/year)
) Other, namely

22. What is your most important priority regarding animal welfare?
) Functional areas pigpen
) Pen size
) Social interaction
) Climate
) Eating and drinking places
) Lack of diseases
) Other, namely

23. What do you think the pig farmer's top priority is regarding animal welfare?
) Functional areas pigpen
) Pen size
) Social interaction
) Climate
) Eating and drinking places
) Lack of diseases
) Other, namely

24. If you have any questions or comments regarding this survey, please feel free to leave them below.

Appendix 2 Survey pig farmers

1. Which veterinary practice are you affiliated with, and/or who is your veterinarian?

2. What age group do you belong to?
    -) <20
    -) 20-35
    -) 35-50
    -) 50-65
    -) 65+

3. What is your gender?
    -) Male
    -) Female
    -) Other

4. In which region is your farm located?
    -) North
    -) Middle
    -) South
    -) Abroad

5. In which town is your farm located?

6. What type of pig farming operation do you work in?
    -) Gilt multipliers
    -) Multi-livestock farm
    -) Breeding establishments
    -) Finishing farm
    -) Closed farm system

7. How many pigs do you have on the farm?
    -) <1000
    -) 1000-2000
    -) 2000-3000
    -) 3000-4000
    -) 4000-5000
    -) >5000

8. How do you view your relationship with your veterinarian?
    -) As an advisor, to convey knowledge
    -) As a business partner, to maximize financial outcomes
    -) As a friend, to consult with together
    -) As an inspector, to detect problems in a timely manner
    -) As the voice of the animals, to ensure their welfare

9. How would you like to see your relationship with your veterinarian?
    -) As an advisor, to convey knowledge

) As a business partner, to maximize financial outcomes
) As a friend, to consult with together
) As an inspector, to detect problems in a timely manner
) As the voice of the animals, to ensure their welfare

10. Statement: When there are specific topics you want to discuss, you actively reach out to the veterinarian.
) Often
) Sometimes
) Seldom
) Never

11. Statement: you are actively approached by your veterinarian when they want to discuss a specific topic.
) Often
) Sometimes
) Seldom
) Never

Here are a number of questions. They pertain to setting priorities for the key issue of your business. We understand that everything is important.

12. What are the three most important points of attention at your farm?
) Average daily gain
) Medication use
) Preventive care
) Number of piglets per sow
) Nutrition
) Public health
) Fertility
) Welfare
) Profit
) Disease treatment
) Other, namely

13. What do you think are the three most important points of attention for your veterinarian at your farm?
) Average daily gain
) Medication use
) Preventive care
) Number of piglets per sow
) Nutrition
) Public health
) Fertility
) Welfare
) Profit
) Disease treatment
) Other, namely

14. What do you consider the main point of attention for pig growth on your farm?
    a) Daily growth of piglets
    b) Final weight
    c) Birth weight
    d) Health
    e) Weaning weight
    f) Feed conversion
    g) Other, namely

15. What do you think your veterinarian considers the main point of attention regarding pig growth?
    a) Daily growth of piglets
    b) Final weight
    c) Birth weight
    d) Health
    e) Weaning weight
    f) Feed conversion
    g) Other, namely

16. What is your main point of attention regarding medication use?
) Antibiotic use
) Herd-level treatment protocol
) Herd-level health protocol
) Vaccination
) Other, namely

17. What do you think your veterinarian considers the most important point of attention regarding medication use?
) Antibiotic use
) Herd-level treatment protocol
) Herd-level health protocol
) Vaccination
) Other, namely

18. What is your main point of attention regarding public health?
) Antibiotic use
) Hygiene
) Mandatory reporting of animal diseases
) Environment
) Transport
) Other, namely

19. What do you think your veterinarian considers the main priority regarding public health?
) Antibiotic use
) Hygiene
) Mandatory reporting of animal diseases
) Environment
) Transport

) Other, namely.

20. What is your main point of attention regarding fertility?
) Number of stillborn piglets
) Sows coming into heat
) Abortion rate
) Production number (piglets/sow/year)
) Litter size
) Mortality
) Litter index (litters/sow/year)
) Other, namely

21. What do you think your veterinarian considers the most important point of attention regarding fertility?
) Number of stillborn piglets
) Sows coming into heat
) Abortion rate
) Production number (piglets/sow/year)
) Litter size
) Mortality
) Litter index (litters/sow/year)
) Other, namely

22. What is your main point of attention regarding welfare?
) Functional areas pigpen
) Pen size
) Social interaction
) Climate
) Eating and drinking places
) Lack of diseases
) Other, namely

23. What do you think your veterinarian considers the most important point of attention regarding welfare?
) Functional areas pigpen
) Pen size
) Social interaction
) Climate
) Eating and drinking places
) Lack of diseases
) Other, namely

24. If you have any questions or comments regarding this survey, please feel free to leave them below.