Profile of veterinary acupuncturists in Brazil

Magda Alves de Medeiros[1]* [iD]   **Márcia Valéria Rizzo Scognamillo-Szabó[2]** [iD]

[1]Programa de Pós-graduação em Medicina Veterinária (PPGMV), Departamento de Ciências Fisiológicas, Instituto de Ciências da Biológicas e da Saúde (ICBS), Universidade Federal Rural do Rio de Janeiro (UFRRJ), 23890-000, Seropédica, RJ, Brasil. E-mail: magda.medeiros@gmail.com. *Corresponding author.
[2]Clínica Spécialité, Uberlandia, MG, Brasil.

ABSTRACT: Veterinary acupuncture is a complementary and alternative medicine practiced widely in Brazil and is recognized as a specialty by the Federal Council of Veterinary Medicine. However, despite the growing interest of professionals for training and of clients for care, there are no studies on the socioeconomic profile of these veterinary acupuncturists in Brazil. The present survey received 295 (complete) replies, the majority of the respondents were 40 years old or less, female (87%) and were from the southeastern region of Brazil. Furthermore, 57% of respondents were at the beginning of their acupuncture careers with less than 5 years of practice. Most respondents chose to be an acupuncturist for personal satisfaction and perceived effectiveness of acupuncture. Experienced acupuncturists received better financial rewards and were more satisfied with their earnings and valued by their clients. Most respondents believe that acupuncture has scientific evidence through experimental and clinical studies. The socioeconomic profile of veterinary acupuncturists is essential to elaborate future action plans and help improve the quality of veterinary professionals.
Key words: acupuncture, carreer, socioeconomic profile, veterinary specialist.

Perfil do acupunturista veterinário no Brasil

RESUMO: A acupuntura veterinária é uma medicina complementar e alternativa amplamente praticada no Brasil e reconhecida como especialidade pelo Conselho Federal de Medicina Veterinária. No entanto, apesar do crescente interesse dos profissionais pela capacitação e dos clientes pelo atendimento, não há estudos sobre o perfil socioeconômico desses acupunturistas veterinários no Brasil. A presente pesquisa recebeu 295 respostas (completas), a maioria dos respondentes tinha 40 anos ou menos, era do sexo feminino (87,1%) e era da região sudeste do Brasil. Além disso, 56,6% dos entrevistados estavam no início de suas carreiras de acupuntura com menos de cinco anos de prática. A maioria dos entrevistados escolheu ser acupunturista para satisfação pessoal e eficácia percebida da acupuntura. Acupunturistas experientes receberam melhores salários e ficaram mais satisfeitos com seus ganhos e se sentem mais valorizados por seus clientes. A maioria dos entrevistados acredita que a acupuntura possui comprovação científica por meio de estudos experimentais e clínicos. O perfil socioeconômico dos acupunturistas veterinários é fundamental para o planejamento de ações futuras e melhoria da qualidade dos profissionais veterinários.
Palavras-chave: acupuntura, carreira, perfil socioeconômico, especialista veterinário.

INTRODUCTION

Veterinary Acupuncture (Vet AP) is a branch of Traditional Chinese Veterinary Medicine (TCVM), which dates back thousands of years in eastern countries. Acupuncture is now widely practiced in the West and Vet AP has grown significantly over the last decades. Acupuncture may be defined as the insertion of needles into specific body points to produce a healing response. Acupuncture in animals aims to reduce pain, promote anesthesia, and treat musculoskeletal affections (arthritis, hip dysplasia, and traumatic nerve injury), gastrointestinal complaints (gastric motility abnormalities and irritable bowel syndrome), inflammations as well as neurological, respiratory and reproductive disorders (ROSE et al., 2017).

Vet AP in Brazil has gathered pace in the 1980s driven mainly by Professor Tetsuo Inada, from the Federal Rural University of Rio de Janeiro, and since then, different research groups, conferences and specialization courses for Vet AP have been created (SCOGNAMILLO-SZABÓ & BECHARA, 2010). Since 2014, the Federal Council of Veterinary Medicine (CFMV) has regulated Vet AP as a veterinary medical specialty, and the Brazilian Association of Vet AP (ABRAVET) was authorized to grant the title of specialist (CONSELHO FEDERAL DE MEDICINA VETERINÁRIA, 2019a). The term "specialist" in Veterinary Medicine and Animal

Science is a title approved by the CFMV and may be issued by entities that meet the requirements of the CFMV's resolution (CONSELHO FEDERAL DE MEDICINA VETERINÁRIA, 2009). Currently, 20 entities are qualified to grant the title of Veterinary Specialist in Brazil, however in a universe of 155 thousand veterinary professionals, the CFMV has only granted the title of specialist to 117 veterinarians, of these, only 17 titles are in Vet AP. In Brazil; although, there are no studies on the number of veterinarians that use acupuncture practices, Vet AP has grown considerably in recent decades. It is noticeable the demand for training from professionals, the number of specialization courses in Vet AP, a demand of tutors for this kind of treatment, and the considerable number of veterinary acupuncturists (VA) in larger cities (authors personal observation).

The lack of statistics on the number of veterinary specialists also occurs for other veterinary specialties in Brazil. Reliable statistics are essential for measuring progress in reaching development goals and provide essential information on the effectiveness of policies and programs. Therefore, it is important to provide an evidence-based view of changes within the profession and the views of veterinary acupuncturists (VA) on such changes (ROBINSON et al., 2019). Therefore, the present study determined the socioeconomic profile of VAs across Brazil based on an online questionnaire.

MATERIALS AND METHODS

Our approach to assess the profile of Brazilian VAs was based on an online survey using Google forms (https://forms.gle/3AgCVBDeRQTLqd3n9), available between 09/2020 and 11/2020. The questionnaire was disseminated freely through the social media of the Federal Rural University of Rio de Janeiro, in ongoing specialization courses in veterinary acupuncture, and veterinary acupuncturist social groups in Brazil. The study included men and women with professional training in veterinary medicine who work as a VAs in Brazil, and who voluntarily agreed to participate by declaring their consent at the beginning of the questionnaire (mandatory answer). The questionnaire containing 24 questions was composed of a series of categorical items (multiple choice questions) about the socioeconomic and academic profile of respondents. The questions included sex, age, type of Veterinary School (public (federal or state) or private), education status as a Vet (undergraduate, specialization, master, doctorate, and postdoctoral), for those who have a master's or doctorate, whether the subject

of their dissertation/thesis was on acupuncture; and the state and year where the respondent completed their specialization in veterinary acupuncture (if completed). A question with a Likert scale about how the veterinaries considered their performance in the specialization course (poor, average, good, or excellent) was also included.

Additional questions were also included to investigate the main sources of professional updates on acupuncture and the main reasons for choosing acupuncture as a specialty. To assess their experience and workload as a VA, short-answer open questions about time (in years), local (state) of professional practice and the number of acupuncture sessions performed per week. Questions on which complementary medicine techniques are associated with acupuncture were also distributed. Income as a VA was also evaluated (average monthly income and percentage of the income generated from acupuncture) and whether the VAs were satisfied with their earnings and the main reasons for their discontent. Recognition of their specialty (feeling valued by clients and other vets) was also queried. Furthermore, the study assessed the opinion of VAs regarding the existence of clinical and experimental evidence related to acupuncture efficiency and the importance of scientific proof for them and their clients.

The questions had the option "others" with the possibility of inserting a short answer. For data analysis, similar answers were grouped together.

Statistical analyzes were performed using SPSS version 2.0 for Windows (© SPSS Inc.). Data referring to the general characteristics of respondents, such as sex; year, local, level of academic training; institution type, and area of expertise were analyzed by descriptive statistics. Spearman's and Pearson's correlations were performed for non-parametric and parametric variables, respectively.

RESULTS

Among the 295 respondents, 87.12% were female and 12.88% male; 41.69% were between 31 and 40 years old and 28.47 between 41 and 50 years old (Table 1). The majority (52.86%) graduated from private vet universities, while 27.27% were from federal public universities, and 19.87% from state public universities. Most of the VAs (71.19%) had only specialization course, while 11.53% had a master's degree, 8.81% a doctorate and 1.36% a post-doctorate (Table 2). Among holders of master and doctoral degrees, 26.5% and 25.9% presented their dissertation/thesis on acupuncture.

Table 1 - The table shows the distribution, by age and gender, of the veterinary acupunturist in Brazil.

Age (years)	Female (%)	Male (%)	%
21 to 30	14.2	1.4	15.6
31 to 40	36.6	5.1	41.7
41 to 50	25.4	3.0	28.5
51 to 60	9.5	3.4	12.9
61 to 70	1.4	0.00	1.4
Total	87.1	12.9	100.00

83.5% of respondents had already completed their specialization course. Only three (3) respondents (1.01%) had completed their specialization between 1985 and 2000; 3.7% between 2001 and 2005; 16.5% between 2006 and 2010, 25.69% between 2010 and 2015 and 37.04% between 2016 and 2020, and 9.4% planned to finish their specialization courses in 2021 and 2022 (Figure 1).

Most respondents (70.17%) completed their specialization in acupuncture in Southeastern Brazil (São Paulo (51.19%), Rio de Janeiro (14.58%), and Minas Gerais (4, 41%)), while only a few respondents (3.05%) completed the specialization in the Northeast Region (Bahia (2.37%) and Ceará (0.68%)) and in the South Region (11.53%) (Paraná (7.46%) and Rio Grande do Sul (4.07)). According to their self-assessment of achievement in the specialization courses, 89.34% considered it excellent or good and 10.31% average, and 0.3% poor (Figure 2).

Since questions were accepting more than one answer, their sum of percentages may be over 100%. Respondents stated that the main sources for updating before the pandemic were scientific papers (62.4%); books (75.6%), presential short-term courses (73.2%); online courses (33.6%); seminars/ conferences (61%); discussion groups (social networks) 58.6%. Some respondents (5.4%) indicated other sources
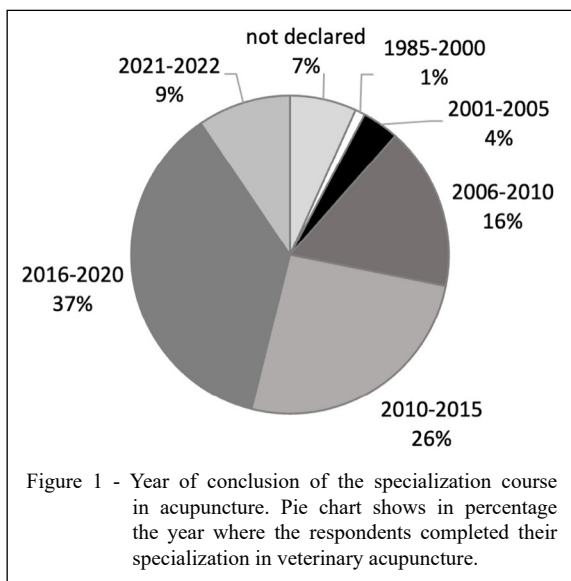
such as internships in Brazil or abroad; internet research, graduate studies, presential study cases with colleagues; and long-term courses. The main reasons why they chose to become acupuncturists were personal satisfaction 225 (75.83%), the efficacy of acupuncture 218 (73.4%), and affinity with the technique 211 (70.7%) (Table 3). Other reasons included another treatment option, need to combine techniques, enrich physiatry, search for self-knowledge, use of a more subtle technique, holistic thinking, and tendency to value integrative therapies.

The VAs could cite more than one state of acupuncture practice. Most of the respondents practiced acupuncture in the Southeast region (72.4%), with 47.1% in São Paulo, 16.8% in Rio de Janeiro and 7.7 in Minas Gerais; while 2.3% practiced in the Northeast (mainly Bahia), 3.03% in the Midwest, 11.4% in the South and 1% in the North region. However, 7.4% of responders did not specify the Brazilian State where they worked as a vet (Table 4).

The average time the respondents had been practicing as acupuncturists was 6.75±6.09 years, with a minimum of 0 years and a maximum of 35, with a mode of 1 year. Separating into groups in terms of years of practice, 56.61% had up to 5 years, 22.71% had 6 to 10 years, 13.22% had between 11 and 15 years and 7.46% had 16 years or more. 49.83% of the
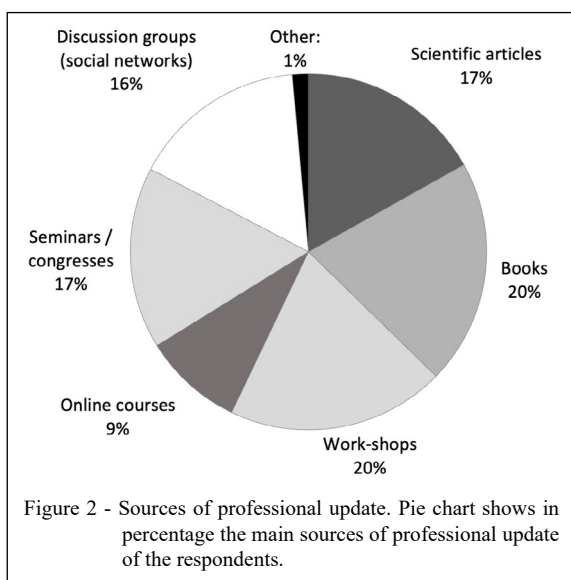
Table 2 - The table shows the distribution of the type Veterinary School (public (federal or state) or private) and education status as a Vet (undergraduate, specialization, master, doctorate, and postdoctoral) of the veterinary acupunturist in Brazil.

Higher education status	--------------------In which category did you graduate in veterinary medicine?--------------------			
	Private (%)	State Public (%)	Federal Public (%)	Total (%)
Graduate	4.7	0.3	2.0	7.0
Vet Specialist	41.4	12.2	17.6	71.2
Master's Degree (Msc)	4.1	3.7	3.7	11.5
Doctorate Degree (PhD)	2.0	3.4	3.4	8.8
Post-Doctorate	0.7	0.3	0.3	1.4
Total (%)	52.9	19.9	27	100.0

Figure 1 - Year of conclusion of the specialization course in acupuncture. Pie chart shows in percentage the year where the respondents completed their specialization in veterinary acupuncture.

respondents had up to 10 appointments/sessions per week, 35.59% 11 to 30 appointments and 12.2% 31 to 50 s, and 2.37% of acupuncturists had more than 50 appointments weekly.

Most respondents (40%) stated that over 75% of their income came from acupuncture sessions while 25.42% declare that up to 25% of their income was from acupuncture, 14.23% declare that 25- 50%, and 20.22% declared that 50-75% of their income came from sessions with acupuncture. The average income of acupuncturists according to half of the VA (51.52%) reached up to 3 minimum Brazilian wages

Figure 2 - Sources of professional update. Pie chart shows in percentage the main sources of professional update of the respondents.

(minimum wage in Brazil is R$1045 or US$195 in 08/09/2020), 22.03% earned between 4 to 6, 13.89% between 7 to 9 and 12.54% received 10 or more minimum wages (Table 5). Over half (53.55%) of respondents said they were satisfied with the income received while those who were not satisfied with their salary 29.4% indicated the low cost per session, 66.4% the number of patients was insufficient, 11.9% claimed that maintenance expenses were high and 37.1% indicated low remuneration compared to other specialties and only 1.03% replied that colleagues did not recommend their work.

The techniques that the acupuncturists most associated with their treatments were Chinese master formulas, manipulative techniques, Chinese dietetics, ozone, Reiki and flower essences. Only 2.4% of respondents said they did not associate acupuncture with other techniques. Acupuncturists also mentioned that they associate several other techniques such as chromotherapy, magnet laser, and radiesthesia. Only 2.4% of respondents said they did not associate acupuncture with other techniques. When asked about their professional field in veterinary medicine apart from acupuncture, 29 (9.8%) replied that they work only with acupuncture or TCVM, and 6.1% work with acupuncture and physiotherapy/physiatrics, while most of the responders work in other veterinary activities, mainly small animal clinics. When asked if they feel valued by other veterinarians, 54.58% of acupuncturists consider themselves undervalued, 42.03% as valued as other specialists, and 3.39% more valued. When asked if they feel valued by their clients, 24.41% of the acupuncturists consider themselves undervalued, 60.5% as valued as other specialists and 15.2% over valued (Table 6).

When asked about the scientific evidence of acupuncture efficacy, most respondents (71.4%) stated that there is a lot of experimental and clinical evidence of the efficacy; while 14.23% agreed that there is a lot of experimental evidence, but limited clinical evidence. In contrast, 14.5% considered that there is little scientific evidence of the effect of acupuncture for many medical conditions. However, 46.78% of the VAs considered that scientific evidence was very important and 47.46 felt that it had some importance, while 5.76% considered that it was not important. Only 22.14% of acupuncturists believed that scientific proof is very important for their clients, 58.76% believed that it matters to clients and 19.06% believed that proof is of no importance to clients (Table 7).

A significant and strong correlation was detected between the number of sessions per week and the percentage of earnings in acupuncture (Rho

Table 3 - The table shows the main reasons that led veterinary acupuncturists in Brazil to choose to be an acupuncturist.

Why did you chose to be an acupuncturist?	%
Personal satisfaction	75.9
Perception of The High Effectiveness Of Acupuncture	73.2
Affinity With The TCM Philosophy	70.5
Disappointment With Allopathy	17.6
Best Financial Return	8.1
Other	8.5

Spearman=0.536; P < 0.01) and average income from working with acupuncture (Rho Spearman=0.756; P < 0.01). In addition, there was a strong correlation between the percentage of earnings in acupuncture and average income from working with acupuncture (Rho Spearman=0.605; P < 0.01). Other factors related to the acupuncture experience (time in the profession), earnings in acupuncture (number of sessions per week, percentage of earnings in acupuncture, average income from working with acupuncture), and if the VAs feel valued by clients and by other vets showed P > 0.05 but with Spearman's rho < 0.5, which are considered weak correlations (Table 8).

DISCUSSION

The present study was answered mainly by professionals at the beginning of their careers, with low adhesion of older professionals. Less than 5% of respondents had completed their specialization course before 2005, and approximately 80% had completed it between 2006 and 2020. This reflects the large number of young professionals on the market along with an increase in the number of veterinarians registered with CFMV (CONSELHO FEDERAL DE MEDICINA VETERINÁRIA, 2019a). In addition, young people are more at ease with social media than older generations so there was a greater distribution of the questionnaire among professionals who had recently completed or were still attending their acupuncture specialization course.

The sex breakdown of respondents illustrates the continuing 'feminization' of the veterinary profession, where 58 percent are female and 42 percent male (CONSELHO FEDERAL DE MEDICINA VETERINÁRIA, 2019a). Of the 295 respondents, 87.12% were female, 12.88% were male and none failed to answer the question or

Table 4 - The table shows the distribution, by state and region of Brazil, of professional practice of the veterinary acupunturist in Brazil.

	State	n	%	Region	%
Southeast	São Paulo	140	47.5	215	72.9
	Rio de Janeiro	50	16.9		
	Minas Gerais	23	7.8		
	Espirito Santo	2	0.7		
North East	Bahia	5	1.7	7	2.4
	Paraiba	1	0.3		
	Rio Grande do Norte	1	0.3		
Midwest	Tocantins	2	0.7	9	3.1
	Distrito Federal	3	1.0		
	Goias	3	1.0		
	Mato Grosso	1	0.3		
South	Paraná	17	5.8	34	11.5
	Santa Catarina	2	0.7		
	Rio Grande do Sul	15	5.1		
North	Roraima	3	1.0	3	1.0
	Brazil (no specific state)	22	7.5		

Table 5 - The table shows the distribution of monthly income from acupuncture work in US dolar of the veterinary acupunturist in Brazil. Minimum wage in Brazil was R$1045 or US$195 in 08/09/2020).

-------------------------------Wages from acupuncture work-------------------------------		No.	n	%
Up to 3	Up to 1 minimum wage (US$195)	85		
	Up to 2 minimum wages (US$390)	32	152	52.5
	Up to 3 minimum wages (US$585)	35		
4 to 6	Up to 4 minimum wages (US$780)	30		
	Up to 5 minimum wages (US$975)	21	65	22.0
	Up to 6 minimum wages (US$1170)	14		
7 to 9	Up to 7 minimum wages (US$1365)	17		
	Up to 8 minimum wages (US$1560)	20	41	13.9
	Up to 9 minimum wages (US$1755)	4		
$\geq$10	Up to 10 minimum wages (US$1950)	16	37	12.5
	More than 10 minimum wages (US$1950)	21		

stated another sex (gender specific questions were not included in this study). Veterinary Medicine in Brazil has an accelerated growth due to the participation of women on the labor market, and since 2018, women have become the majority among veterinarians. In 2020, the country had 145,689 working veterinarians, of which 78,100 (54%) declared themselves female (CONSELHO FEDERAL DE MEDICINA VETERINÁRIA, 2019a, 2019b; CONSELHO REGIONAL DE MEDICINA VETERINÁRIA DO PARANÁ, 2018). In addition, the higher participation of women in this study may reflect not only the labor market but also cultural characteristics linked to gender since women tend to be more likely to self-select to participate in online surveys (MOORE & TARNAI, 2002). The author's impression is that; although, men continue to remain in most of the senior positions in professional entities, the participation of women in veterinary acupuncture specialization courses may reach 90%.

The academic levels showed considerable academic training for these Brazilian VAs, with 21.89% of the respondents having a Master's degree, Doctorate, or Post-Doc; furthermore, the theme of the thesis of 26.47% of the Masters and 25.93% of the Doctors was acupuncture. Most VAs (65.77%) completed their specialization in São Paulo or Rio de Janeiro, which reflects the concentration of specialization courses offered in these regions. Most of professionals considered that their performance in the specialization courses was good or excellent, which shows the satisfaction of graduates with the quality of training achieved.

Considering that the questionnaire refers to the period before the COVID pandemic the sources of professional updates were diverse, including seminars, congresses, books, scientific articles, and workshops.

When the professionals were asked why they choose to practice Vet AP, personal satisfaction with the technique was the most important, followed

Table 6 - The table shows the distribution of veterinary acupunturists in Brazil who feel less, equally or more valued than vets from other specialties by their clients and by their veterinary colleagues.

		--------------------------By other vets--------------------------			
		less valued than other specialties	as valued as other specialties	more valued than other specialties	Total
By clients	less valued than other specialties	20.68%	3.39%	0.34%	24.4%
	as valued as other specialties	28.47%	31.19%	0.68%	60.3%
	more valued than other specialties	5.08%	7.46%	2.67%	14.9%
	Total	54.58%	42.03%	3.39%	100%

Table 7 - The table shows the importance of scientific evidence of acupuncture efficacy for veterinary acupuncturists in Brazil and for the clients.

		---Vet Acupuncturists---			
		it does not matter	has some importance	it is very important	Total
Clients	it does not matter	2.4%	9.9%	6.8%	19.0%
	has some importance	3.0%	28.9%	26.8%	58.8%
	it is very important	0.3%	8.6%	13.2%	22.1%
		5.7%	47.4%	46.8%	100.00%

by the perception of its high effectiveness and affinity for the philosophy. On the other hand, financial return was an important factor for only 8.08% of the respondents, and disappointment with allopathy was 17.51%. Although, the present study did not directly quantify job satisfaction on a specific scale, this result showed that VA value the philosophical characteristics and job satisfaction. Believing in the therapy you are using seems to be an important factor for job satisfaction. A study with general practitioners (GP) in Germany showed that physicians with a positive attitude toward Complementary and Alternative Medicine (CAM) had significantly better scores on the job satisfaction scale and lower working hours per week compared to GP with a neutral/negative attitude. These differences suggested that those GPs using and believing in CAM have a different medical orientation and approach which in turn may influence their job satisfaction (JOOS et al., 2011). Another interesting question was the perception of the effectiveness of acupuncture. Unfortunately, the question did not ask whether this perception was based on personal observations or scientific data.

The analysis of the demographic data is limited since there are no official data on the number of VAs in Brazil, which prevented a proportional distribution of questionnaires according to the number of VA in each state or region. Most respondents work professionally in the Southeast region of Brazil, which reflects the distribution of veterinary professionals in the country (CONSELHO FEDERAL DE MEDICINA VETERINÁRIA, 2021). Although, the state of Rio de Janeiro represents 10.66% of the number of veterinarians working in the country, the percentage of respondents from this state of the Federation was 16.8%. Rio de Janeiro may have a large concentration of VAs given its historical context, since the initial impulse of this practice took place at UFRRJ, during the 1980s (SCOGNAMILLO-SZABÓ & BECHARA, 2010).

Most respondents were at the beginning of their careers. Just over half (56.6%) had up to five years of professional practice and 49.8% of the responders had up to 10 appointments per week. Furthermore, 52.5% said they received up to 3 minimum Brazilian wages (US$ 192/month) from their acupuncture work. Despite this, 53% were satisfied with their salary. When the correlations were analyzed, there was a clear evolution with time in the activity, where the more experienced the VA, the greater the percentage

Table 8 - Correlation for study variables.

Variables	1	2	3	4	5	6	7	8
1. Time of acupuncture practice	1							
2. Number of sessions per week	0.350^{**}	1						
3. Percentage of earnings in acupuncture	0.203^{**}	0.536^{**}	1					
4. Average income from acupuncture	0.411^{**}	0.756^{**}	0.605^{**}	1				
5. Satisfaction with the income	0.212^{**}	0.409^{**}	0.331^{**}	0.481^{**}	1			
6. Feel valued by other vets	0.024	0.07	-0.038	0.141^{*}	0.266^{**}	1		
7. Feel valued by clients	0.124^{*}	0.106	0.128^{*}	0.174^{**}	0.273^{**}	0.376^{**}	1	
8. Age	0.442^{**}	0.019	-0.014	0.114^{*}	0.054	0.123^{*}	0.153^{**}	1

Spearman correlation between the variables: time of acupuncture practice, number of sessions per week, percentage of earnings in acupuncture, average income from acupuncture, satisfaction with the income, feel valued by other vets, feel valued by clients ad age. [**]Correlation is significant at the 0.01 level. [*]The correlation is significant at the 0.05 level.

of income came from acupuncture, and the higher the income from the practice the more satisfied the veterinarians were with their income and the more valued they felt by their clients.

Almost all the respondents (97.6%) associated acupuncture with other techniques, especially Chinese Master Formulas. Acupuncture is one of the techniques of TCVM, so it is common for a VA to add other therapeutic strategies to obtain better results. However, except for Chinese Master Formulas, the choice of technique to be associated with acupuncture did not seem to have any philosophical pattern, since techniques with very different philosophical approaches are often associated with acupuncture (such as Reiki, flower essences, and ozone). In the present study, the option of adding other techniques, based on customer demand, was not asked.

In the present study, 90.2% of professionals performed other activities in veterinary medicine; in addition to acupuncture, clinical practice and general surgery were the most frequent. As most of the responders were at the beginning of their careers, it is very likely that they still don't have a large number of acupuncture customers.

Although, the Vas feels valued by their clients, most considered themselves less valued by colleagues of other specialties. Despite being an interesting question, its analysis is difficult since this is a subjective question and the answer may reflect the respondent's personal opinion, in addition to the financial aspect. Another important fact is the lack of similar data in other veterinary specialties in Brazil that could be used for comparison.

The majority of the respondents consider that there is experimental and clinical evidence of the effectiveness of acupuncture for many diseases. Based on the global platform of scientific search, there are few clinical studies that show the effectiveness of Vet AP in different diseases. There are opinion reviews that infer a favorable result for Vet AP, but they are based on experimental studies with rodents and not on clinical tests on domestic animals with an experimental design (DEWEY & XIE, 2021). On one hand, a meta analyses study showed that "there is no compelling evidence to recommend or reject acupuncture for any condition with domestic animals" (HABACHER et al., 2006). Conversely, in humans, a recent meta analyses showed that acupuncture is effective for the treatment of chronic musculoskeletal and osteoarthritis pain as well as headaches (VICKERS et al., 2018). Respondents to this study did not seem to be aware of the lack of

scientific evidence from clinical studies that proves the effectiveness of acupuncture.

CONCLUSION

The present survey was answered mainly by young professionals from southeastern Brazil, who were beginning their veterinary careers in acupuncture. Most responders chose the specialty based on personal satisfaction and perception of its effectiveness. The longer they were in this specialty, the more satisfied they became with their income and the more valued they felt by their clients. Most responders still work in other veterinary specialties, mainly general veterinary practice. Veterinary acupuncturists are perceived to be more valued by clients than by their peers. Most responders believe that acupuncture has clinical scientific evidence. Knowledge concerning the socioeconomic profile of veterinary medical specialties is essential to plan future actions and improve the veterinary profession. Therefore, socioeconomic surveys of veterinary specialties should be performed on an ongoing basis, mainly by official entities such as the CFMV.

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DECLARATION OF CONFLICT OF INTEREST

We have no conflict of interest to declare.

AUTHORS' CONTRIBUTIONS

MAM and MVRS-S conceived of the presented idea. MAM prepared the survey, and MVRS-S divulgated and distributed it. MAM analyzed the results, built tables and graphics, and wrote the initial version manuscript. MAM and MVRS-S discussed the results and contributed to the final manuscript.

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