

Exploring the relationship between South African veterinarians and veterinary physiotherapists

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Veterinary physiotherapy is a newly promulgated independent profession in South Africa. Veterinary physiotherapists work under referral or in collaboration with a veterinarian. Veterinarians therefore significantly influence appropriate client referrals.

The study examined the relationship dynamics between veterinarians and veterinary physiotherapists in South Africa, with a focus on identifying the barriers and facilitators influencing referral practices by veterinarians.

This descriptive cross-sectional study used a sequential exploratory mixed-method approach. Three phases of data collection were completed utilising both semi-structured interviews, phases 1 and 3, and two self-developed descriptive questionnaires administered to both veterinarians and veterinary physiotherapists in phase 2. Interviews transcripts were analysed using an inductive thematic approach to identify common themes. Questionnaire data was analysed using a descriptive statistical analysis and correlation tests to determine the relationship between variables. Statistical significance was calculated and determined using $p < 0.05$.

Sixty-five percent (65%, $n = 63$) of veterinarians regularly referred patients to veterinary physiotherapy. Significant correlations were found between the type of veterinary practice and the likelihood to refer. Forty-nine percent (49%, $n = 29$) of veterinary physiotherapists received regular referrals from veterinarians. Regular referrals from veterinarians and a higher veterinary physiotherapy caseload were significantly correlated. The interviews revealed themes around how communication, location, and understanding the physiotherapy profession impacted the veterinarians' likelihood to refer.

While there appears to be a positive perception of the veterinary physiotherapy profession by veterinarians, there remains potential for growth regarding veterinary referrals to veterinary physiotherapy. This can be supported by better communication between the professions and ongoing education.

Keywords: veterinary physiotherapy, veterinarians, promulgation, veterinary multidisciplinary team

Background

In 2017, veterinary physiotherapy became an independently recognised and regulated para-veterinary profession in South Africa, recognised by the South African Veterinary Council (SAVC 2022). Going forward, all practitioners in the field are required to be registered with the SAVC as a veterinary physiotherapist. There is currently only one prescribed qualification to be registered with SAVC as a veterinary physiotherapist in South Africa, this is through the Equine-Librium College (SAVC 2023b). During the promulgation process, practitioners in the field were required to apply for registration through the grandfather clause period. This application route has now been closed. Applicants that have not completed the prescribed qualification need to fulfil the required day one skill set (SAVC 2023a) that details the scope of practice and then apply to complete theory and practical registration examinations with SAVC. South Africa (SA) represents a global first, wherein the veterinary physiotherapy profession is independently recognised and regulated by its respective veterinary council. Yet the overall impact of this on the profession is unknown.

A veterinary physiotherapist in South Africa is defined as a para-veterinary professional registered under the Veterinary and Para-Veterinary Professions Act (Department of Agriculture, Land-Reform and Rural Development 2023). They are individuals

authorised by the SAVC to provide physiotherapy services to animals within a prescribed scope of practice (SAVC 2023a). This scope includes assessment and treatment of patients with musculoskeletal, neurological and cardiorespiratory disorders, with the goal being "to maintain, restore and optimise movement and functional ability throughout the lifespan of an animal" (SAVC 2023b). All persons wishing to practise as a veterinary physiotherapist in SA, needs to meet the minimum standards as prescribed by SAVC (SAVC 2023a). Research done in Ireland and the United Kingdom identified a need for standardisation and regulation of the veterinary physiotherapy profession (Doyle & Horgan 2006; Strange & Walley 2016). This supports findings from previous local research (Johnston 2016; Naidoo et al. 2008). It is reasonable to suggest that the regulation in SA may mitigate uncertainty from veterinarians regarding the competency and knowledge of practitioners and assist with the integration of the profession into the veterinary healthcare team. However, despite this formal recognition, informal feedback from veterinary physiotherapists throughout the country highlights their ongoing struggles with obtaining referrals from veterinarians (Lloyd 2020) and corroborates previous local research reporting a low percentage of direct referrals to veterinary physiotherapists despite relatively high awareness of the profession (Naidoo et al. 2008; Johnston 2016).

Studies have suggested possible reasons for these low referral rates that include insufficient research into animal physiotherapy, poor collaboration between the professions, inadequate awareness of local services, and a limited understanding of which cases may benefit from physiotherapy (Doyle & Horgan 2006; Johnston 2016; Strange & Walley 2016). Johnston (2016) identified a weak understanding of the veterinary physiotherapy profession and appropriate animal patients amongst veterinarians within the Gauteng Province of SA. Their research suggested that “rehabilitation therapists have an important role to play in educating and developing relationships with veterinarians at individual practices” (Johnston 2016). An increase in knowledge regarding the veterinary physiotherapy profession and its role in the treatment of animals has been shown to improve veterinarians’ perceptions, as well as their likelihood to refer cases (Doyle & Horgan 2006; Johnston 2016).

Therefore, it would be useful to obtain insight into the current understanding of the veterinary physiotherapy profession by veterinarians to determine whether this is an area that should be addressed. Naidoo et al. (2008) identified a “need for animal physiotherapy specialisation” to increase collaboration between the two professions. Other studies support this, suggesting that a more standardised qualification would assist the integration of veterinary physiotherapy into the veterinary healthcare team (Doyle & Horgan 2006; Strange & Walley 2016). The establishment of an accredited Bachelor of Science in Veterinary Physiotherapy qualification through Equine-Librium College, as well as the registration of the profession with the SAVC, may improve interdisciplinary integration. A collaborative team approach to holistic veterinary care can only be of benefit to the overall health and wellbeing of the animal patient (McGowan et al. 2007b; Sharp 2008; Tabor 2018).

Objectives

The aim of this study was to explore the current relationship and dynamics between veterinarians and veterinary physiotherapists within the South African context, post-promulgation of the veterinary physiotherapy profession. In particular, from the veterinarians’ perspective, their likelihood to refer and their reasons for referral were considered. Similarly, veterinary physiotherapists experiences with veterinary referrals and their challenges with increasing their animal client base were investigated.

Method

Ethical approval was granted by the University of Cape Town Human Research Ethics Committee (HREC:053/2022) prior to commencement. This study was a descriptive cross-sectional study that used a sequential exploratory mixed-methods approach. A mixed-methods approach was considered suitable for the study, as it allowed the researcher to gain deeper insight into the relationships between the two professional groups and allowed for analysis of the different perspectives (Shorten & Smith 2017; Wasti et al. 2022). The study was conducted in three phases.

- Phase one consisted of individual interviews with purposively identified experts in their field. These consisted

of two experienced veterinarians, one who had been the SAVC chairperson and held considerable insight into the promulgation process; and two veterinary physiotherapists that had both been members of the working group involved with the promulgation. These interviews informed the phases that followed.

- Phase two consisted of two questionnaires: one designed for veterinarian participants and the other questionnaire designed for veterinary physiotherapists.
- Phase three consisted of individual interviews with practitioners in the veterinary and veterinary physiotherapy fields.

This paper describes the findings from phase two and three. The findings from phase one highlighted the need for, as well as the complexity of, registration of the veterinary physiotherapy profession and to ensure adequate training of the practitioners. By establishing a scope of practice it helps to delineate their role in the veterinary multidisciplinary team. Barriers and facilitators to referral were explored, these closely aligned with the findings from the following phases.

Study Sample Size

Based on population numbers provided by the South African Veterinary Association (SAVA) and the South African Physical Rehabilitation for Animals Association (SAAPRA) of both veterinarians ($n = 2000$) and veterinary physiotherapists ($n = 70$), with a 95% confidence interval ($z = 1.96$), a 5% margin for error, and a standard deviation of 0.5, a sample size of 324 veterinarian participants and 60 veterinary physiotherapy participants was calculated.

Instruments

The questionnaires for the veterinarians and veterinary physiotherapists were self-developed by the researchers, guided by a previous questionnaire used in similar research (Johnston 2016), as well as information gained in the first phase of the study. The questionnaires included sections on participant demographics, their typical patient case types, awareness and understanding of the veterinary physiotherapy profession, and their likelihood to refer (for veterinarians) or to receive referrals (for veterinary physiotherapists). The majority of the questions were multiple choice questions with open ended options for participants to elaborate on. Both questionnaires were reviewed by three independent external reviewers for content validity (Slattery et al. 2011).

Procedure

A pilot study was performed prior to the distribution of the questionnaires. Two veterinarians and two veterinary physiotherapists were requested to complete the questionnaires and provide feedback regarding the content, ease of use, and the time taken to complete. As the first phase of the study, the questionnaires were then loaded onto the Survey Sparrow platform (www.surveysparrow.com). Permission was granted by SAVA and SAAPRA to distribute the questionnaire link by email via their networks, as well as through the sharing of the link on social media. All participants were required to provide

informed consent before accessing the questionnaires, which was completed anonymously.

Participants were asked to indicate whether they were willing to be contacted for the third phase of the project. They were then contacted by the researcher and interviews were arranged to be conducted over the Zoom platform at a mutually convenient time. Three veterinarians and three veterinary physiotherapists indicated their willingness and were interviewed. The aim of the interviews was to collect personal accounts and experiences of the working relationships between the two professions. A set of semi-structured questions (checked and amended by the supervisors) guided the interviews, although the researcher encouraged the conversation to flow. This allowed the participants to share their own experiences, while the guide ensured that all participants were asked the same set of questions, increasing reliability (Newcomer et al. 2015). The interviews were recorded and transcribed by the researcher. A copy of the interview transcript was sent to each participant for verification of accuracy prior to the data analysis to improve the reliability and trustworthiness of the information received from the participants prior to analysis (Newcomer et al. 2015).

Data analysis

Data from the questionnaires was analysed using a descriptive analysis. To check for associations between variables and

referrals, an independent-samples two-proportions z-test was used, with a 5% level of significance. Statistical significance was calculated and determined as $p < 0.05$.

Qualitative findings from the interviews was analysed using an inductive thematic approach to identify common themes (Braun & Clarke 2006). Themes were generated following the six-step framework by Braun and Clarke (2006), namely: familiarisation, coding, generating themes, reviewing themes, defining and naming themes, and write-up. The interviews were anonymised and transcribed verbatim to reduce the likelihood of transcription bias. Keywords or phrases were highlighted as relating to the objectives and manually grouped on an Excel spreadsheet. Sub-themes that appeared in two or more of the datasets were considered relevant. The sub-themes and themes were reviewed and confirmed by the supervisors to ensure reliability and trustworthiness (Colorafi & Evans 2016).

Results

Veterinarian Questionnaire Results

The questionnaire was completed by 103 veterinarians, with 97 responses eligible for analysis. The demographics of the respondents are displayed in Figure 1.

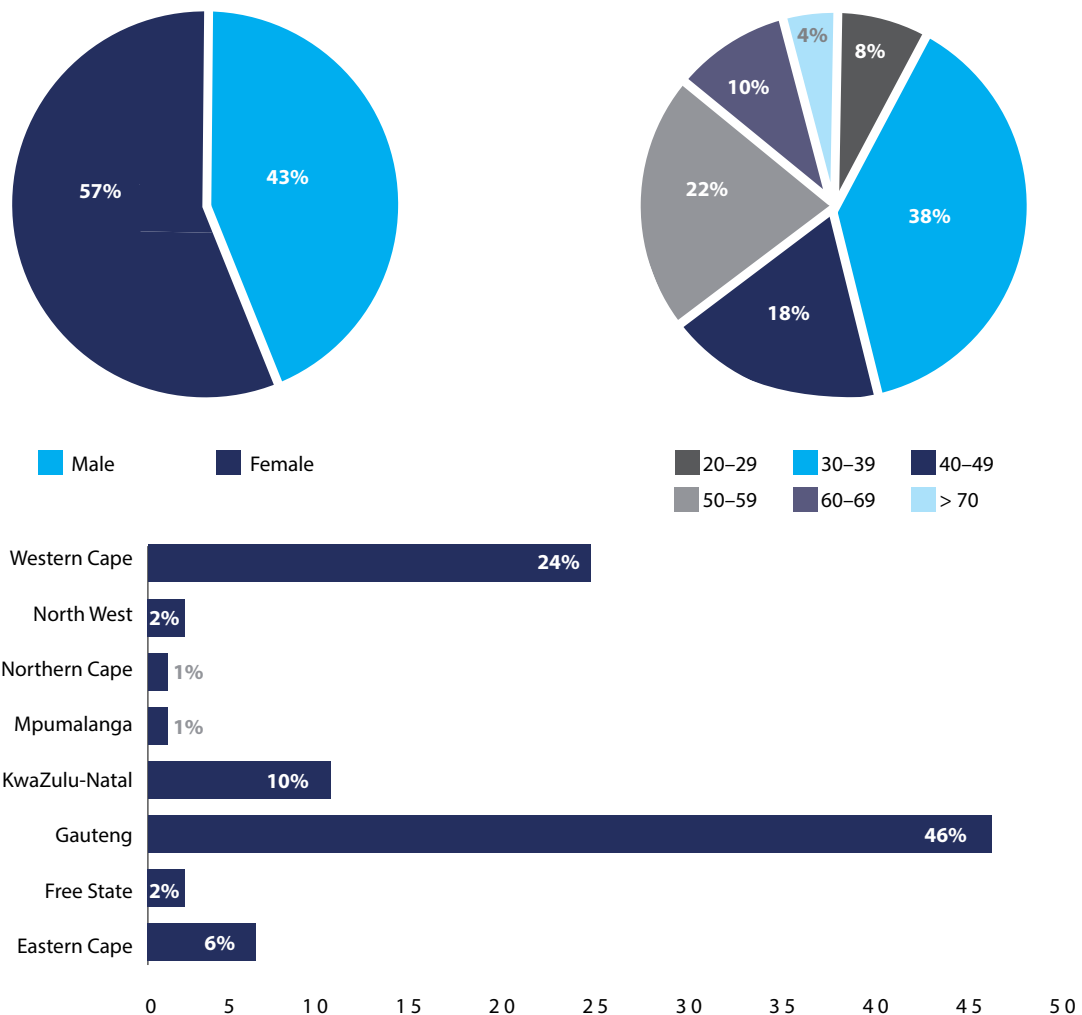


Figure 1: Demographics of veterinarian participants – gender, age, and location

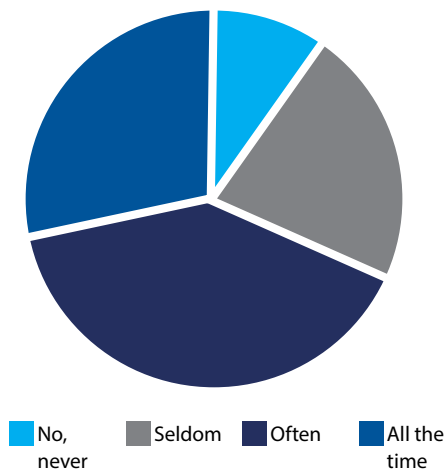


Figure 2: Rate of referrals to veterinary physiotherapy

Veterinarians were asked to indicate their likely rate of referral to physiotherapists, with 65% ($n = 63$) indicating a high (“Often” and “All the time”) likelihood of referral (Figure 2).

The primary reasons for referrals are depicted in Table I.

A few variables were found to associate with higher referral rates from veterinarians (Table II).

Demographic factors, including age and gender, did not significantly correlate with a higher likelihood to refer, with p -values of 0.805 and 0.328 respectively. In addition, there was no

Table I: Primary reasons for referrals

Reasons	Number (%)
I have seen the benefits of using a physiotherapist for certain cases	47 (49)
I believe there is evidence to support the inclusion of physiotherapy in certain cases	44 (45)
I have a good working relationship with the physiotherapist in my area	38 (39)

correlation when comparing veterinarians’ years in practice (> 20 years vs. < 20 years) with their likelihood to refer, with a p -value of 0.889. When comparing the likelihood to refer between equine practices, and other practice types, no significant correlations were found.

The range of small animal case types with respect to the likelihood to be referred to veterinary physiotherapy is depicted in Figure 3.

The percentage of equine referrals were less than those of the small animal referrals (Figure 4), with a total of 17 equine responses recorded.

When asked whether veterinary physiotherapy should be considered an integral part of animal care, 85% ($n = 82$) of the veterinarian participants agreed, 12% ($n = 12$) were neutral, while only 3% ($n = 3$) disagreed. When asked to describe their level of understanding of the veterinary physiotherapy

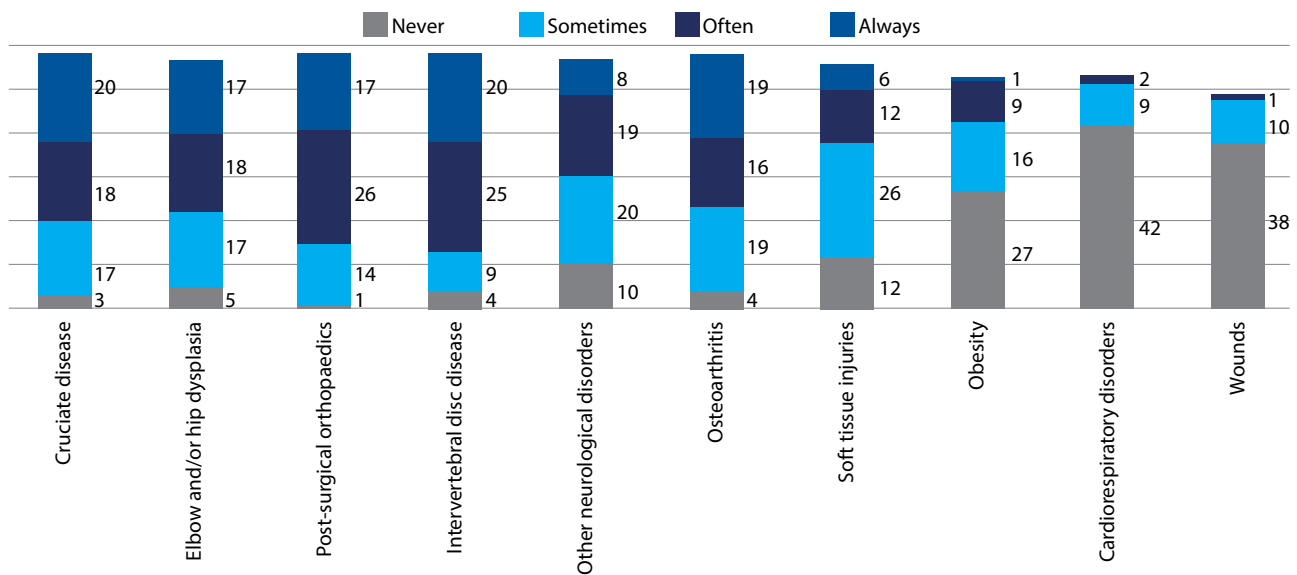


Figure 3: Frequency of referrals of small animal conditions

Table II: Variables significantly associated with higher likelihood to refer to veterinary physiotherapy

Variables	z-value	p	Interpretation
Additional Qualifications	2.139	0.028	Veterinarians who held additional qualifications were significantly more likely to refer
Poor/Average Understanding	4.144	0.000	Lack of understanding of the physiotherapy profession associated with less likely to refer
Veterinary Practice Type			
Specialist vet centre	2.544	0.011	More likely to refer than mixed practices.
Small animal practice	3.168	0.002	

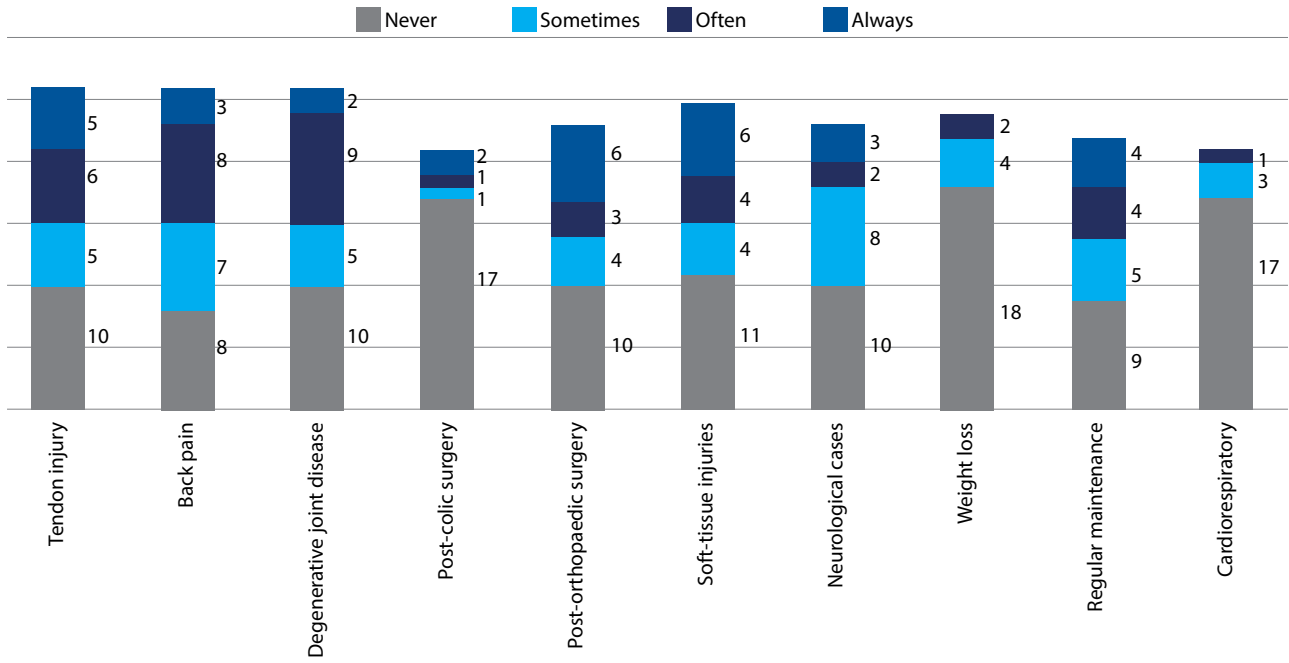


Figure 4: Frequency of referrals of equine conditions

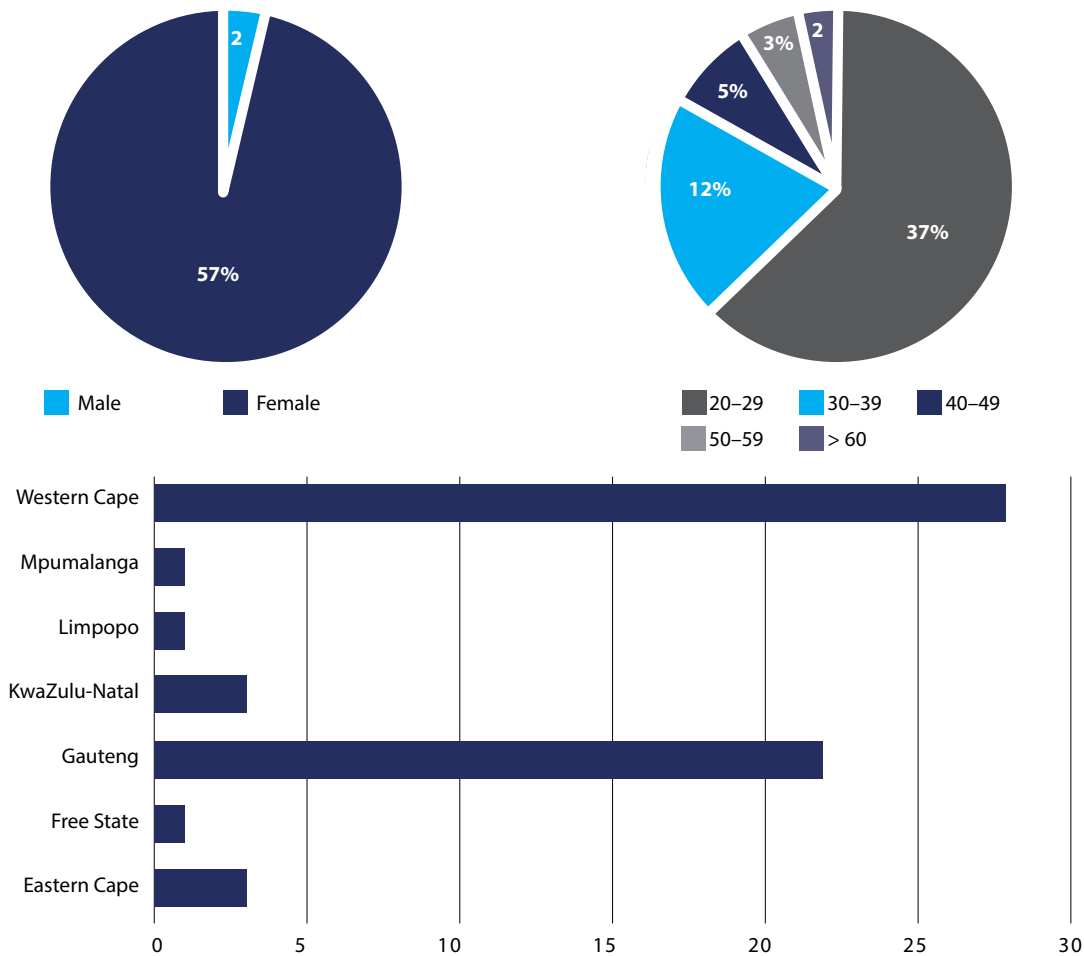


Figure 5: Demographics of veterinary physiotherapist participants – gender, age, and location

Table III: Variables associated with higher veterinary referral rates

Variables	z-value	p	Interpretation
Caseload:			Veterinary physiotherapists who reported receiving regular direct vet referrals more likely to have a higher caseload
> 20 patients per week	2.755	0.006	
< 20 patients per week	2.094	0.036	
Veterinary Physiotherapy			Veterinary physiotherapists located in these practice types were more likely to receive direct vet referrals than those in mobile practices
Practice Type:			
Independent veterinary physiotherapy practice	-3.205	0.001	
Affiliated/Associated to a veterinary practice	-2.224	0.026	

profession, twenty percent (20%, $n = 18$) self-reported a poor or average understanding. Ninety-two percent (92%, $n = 89$) of the veterinarians indicated that the promulgation positively impacted their likelihood to refer to physiotherapists. When asked to elaborate, the majority of the participants gave reasons that linked to an increased confidence in the training and qualification of the veterinary physiotherapists, as well as the accountability that registration with the SAVC would carry.

Veterinary physiotherapists questionnaire results

All 59 veterinary physiotherapist respondents met the inclusion criteria; their demographics are depicted in Figure 5. The majority of respondents ($n = 43$) had obtained their degree through the prescribed qualification in South Africa.

Of these, 49% ($n = 29$) reported receiving regular referrals directly from veterinarians in their area, 36% ($n = 21$) reported receiving a few direct veterinary referrals, and 12% ($n = 7$) reported struggling to receive referrals from the veterinarians in their area. The variables that showed a significant association with higher referral rates are depicted in Table III.

No significant association was identified when comparing years in practice (> 5 years or < 5 years) of the veterinary physiotherapist and their experience with receiving regular vet referrals (p -value = 0.144),

Interview results

Individual interviews with three veterinarians and three veterinary physiotherapists were conducted:

- **Vet 1:** an equine veterinarian based in the Western Cape;
- **Vet 2:** a small animal veterinarian based in the Western Cape;
- **Vet 3:** a locum small animal veterinarian based in Gauteng;
- **Vet PT 1:** a veterinarian and private practice owner of two rehabilitation centres in Gauteng who practices solely in the rehabilitation sphere;
- **Vet PT 2:** a practice manager and physiotherapist in a busy small animal and equine practice in the Western Cape; and
- **Vet PT 3:** a mobile veterinary physiotherapy practice owner in the Western Cape.

The interview analysis generated the themes as depicted in Table IV.

Theme 1 –Professional Dynamics

Consistent, efficient communication channels were mentioned by many participants as a facilitator to developing the relationship between the professions. One veterinary

Table IV: Emerging themes from phase 3

Themes	Subthemes
Theme 1: Professional Dynamics	Communication Promotion of services Understanding Personal experiences
Theme 2: Logistics	Practice type Location Facilities
Theme 3: Clients	Cost Awareness
Theme 4: Registration of the Profession	Positive views Concerns

physiotherapist participant reported to “work largely on a referral basis. Sixty percent of the patients I see come from veterinary referrals” (Vet PT 2) and noted “consistent communication” as the biggest contributor to the number of veterinary referrals received. However, a veterinarian interviewed noted “a massive lack of feedback and reporting back” (Vet 2) from the physiotherapists, implying that more needed to be done to improve communication. Feedback regarding the physiotherapy intervention was considered “information that should be shared” (Vet 2) to ensure successful team management of the patient. Effective communication includes the importance of the promotion and marketing of services and the profession to the veterinarians and the public. One participant suggested that veterinary physiotherapists needed to be “brave and actually go out there to try to get a meeting with vets” as “I think once they’ve met a veterinary physiotherapist, it’s easier to actually make a recommendation” (Vet PT 3). In addition, education on the full scope of veterinary physiotherapy would be beneficial to improve the understanding of the case types that can benefit from physiotherapy. The veterinarians agreed that veterinary physiotherapists need to educate veterinarians on “what they are actually qualified to do” (Vet 1) noting that “the more that you can get people to see and hear what you do the better” (Vet 3).

In addition, participants noted the biggest facilitator being positive personal experiences. Once a veterinarian developed a positive relationship with a veterinary physiotherapist, they would continue to refer patients to them. The positive experience incorporated both the communication from the physiotherapist, as well as their skillset and ability to assist their patients.

Theme 2 – Logistics

During the interviews, it was highlighted that equine and mobile practices were less likely to receive direct referrals, with

participants mentioning it was more difficult to establish effective communication channels and form or maintain professional relationships in these contexts. A veterinary physiotherapist stated that there could be a *“definite improvement with veterinary communication with the equine side” (Vet PT 2)*. The location of the veterinary physiotherapy practices was mentioned as being relevant to the likelihood to refer. Those located close to, or within, a veterinary practice were more likely to receive regular referrals due to ease of communication, as well as increased awareness. One of the veterinary physiotherapy participants commented that *“since they had moved next door to them [a specialist vet centre] our relationship has even improved more because they’ve seen the work that we can do” (Vet PT 2)*. A comment from one of the veterinarians echoed this sentiment, stating that in an ideal world she would *“love to have it all under one roof, where you work together” (Vet 1)*. All of the veterinarian participants agreed that an in-house veterinary physiotherapist allowed for a more holistic approach to patients and improved the collaboration between practitioners. The veterinarian participants also mentioned that they would be more likely to refer to a physiotherapy practice that had facilities and equipment available as it implied a more thorough rehabilitation treatment could be implemented.

Theme 3 – Clients

Most veterinarian participants mentioned the additional cost of physiotherapy being a barrier to referrals – *“cost-wise I mean more people would love to do it, but they just mostly can’t afford it” (Vet 3)*. Veterinarian participants were less likely to refer if clients indicated that costs were an issue. Some suggested mitigating this through targeting pet medical aids to cover physiotherapy for certain conditions. In addition, public awareness and understanding of veterinary physiotherapy was often the determinant in whether they would consult with a veterinary physiotherapist, even following a referral recommendation from the veterinarian. *“I think the scope is there to do a broader base of patients, but I don’t think the clients understand” (Vet 3)*. One veterinarian expressed that *“clients need to be made a bit more aware. I think that veterinary physio is lagging a bit behind human physio” (Vet 2)* in terms of educating the public. They considered that this played a significant factor in clients not following through with the suggestion to consult with a veterinary physiotherapist.

Theme 4 – Registration of the profession

Most participants were positive about the promulgation and subsequent registration of the profession, stating that it helped to clearly define the profession and ensure veterinary physiotherapists are adequately trained – *“in terms of working with vets, they respect our profession based on that” (Vet PT 3)* and *“all the new vets that are graduating do know that it’s been a regulated profession” (Vet PT 2)*. Conversely, one participant considered that it had not made any difference on the veterinary community, as *“most of them don’t even know it’s been promulgated” (Vet PT 1)*. There were some comments regarding the registration not making a difference to the public and some veterinarians, as they would still choose to use providers that may not be registered. One participant also expressed her

concern that there was currently only one automatic route to registration.

Discussion

The overall aim of this study was to explore the relationships dynamics and reasons for referrals between veterinarians and veterinary physiotherapists within the South African context, post-promulgation of the veterinary physiotherapy profession.

Veterinarians are considered to be the primary contact for the public regarding concerns related to their animal’s health. A previous study has identified a link between a client’s likelihood to consult a physiotherapist if their veterinarian had recommended it (Lafuente 2019). Similarly, results from this current study suggested that the case load of veterinary physiotherapists can be influenced by direct referrals from veterinarians. It is therefore important to identify factors that could increase referral rates. This study revealed that the majority of veterinarian respondents (65%) reported regularly referring to veterinary physiotherapists, previous studies have reported a lower referral rate (48%) (Johnston 2016). Additionally, 86% ($n = 83$) of veterinarians agreed with the statement that *“veterinary physiotherapy should be considered an integral part of animal care.”* A significant association was found between veterinary physiotherapists that reported receiving regular veterinary referrals and those who had a caseload of greater than 20 patients per week. This demonstrates a link between receiving veterinary referrals and increasing the caseload of veterinary physiotherapists. For a veterinary physiotherapist to grow their practice and the profession, it is important that they receive an increased number of veterinary referrals. Yet only 49% ($n = 29$) of veterinary physiotherapists who completed the questionnaire reported receiving regular referrals from veterinarians. Although there has been an increase in referral percentages, there is still a disparity between the positive perception of veterinary physiotherapy and the referral rates. This suggests that perception is not the only factor influencing referrals.

Several factors were identified as influencing referrals, with having a good working relationship with a physiotherapist listed as one of the top three reasons for referral in the veterinarian questionnaire. There are many aspects of the professional dynamics of a working veterinary care team that facilitates this interprofessional working relationship. These include good communication, clearly defined roles, and complementary goals for the patient. Within the healthcare team, every profession should have their specific place and function (Rowland 2014). The newly established scope of practice for veterinary physiotherapists guides their roles within the team. This should allow for a better understanding from veterinarians and improve interdisciplinary patient management. It is known that veterinarians with a better understanding of veterinary physiotherapy are more likely to refer than those who held a poor understanding of the profession (Doyle & Horgan 2006; Johnston 2016). This has been corroborated by feedback from the interviews with veterinarians stating that they would be more likely to refer if they knew the full scope of veterinary physiotherapy. Educating veterinarians and increasing exposure

to veterinary physiotherapy was recommended to increase the use of their service.

Establishing open and functional communication channels between the two professions is also essential for a strong and successful working relationship. This supports findings from previous research that identified a need for improved communication between the two professions (Doyle & Horgan 2006; Johnston 2016; Strange & Walley 2016). Participants who reported having a good working relationship with the other professional identified efficient communication as being a key factor in their relationship. Identifying opportunities for improved communication practices should consider both practitioners and their working environments.

Factors linked to the logistics of the referral relationship between the two professions were also identified as having an impact. Veterinarians who had access and exposure to veterinary physiotherapy were more likely to refer. Veterinary physiotherapists should consider this when establishing their practices. Being located close to, or within, a veterinary practice increases the awareness of the facility and services, which facilitates referrals from veterinarians. Mobile practitioners may therefore need to spend more time marketing themselves and their practices.

The types of conditions in small animal and equine patients that were regularly referred by veterinarians (Figures 3 and 4) aligned to previous studies, which indicates a better understanding and awareness of physiotherapy intervention for these conditions (Doyle & Horgan 2006; Johnston 2016; Eiermann et al. 2020). Feedback from veterinarians and veterinary physiotherapists working in the small animal environment additionally detailed the importance of including physiotherapy management of orthopaedic and neurological patients, as they understood this accelerated their return to function. Small animal conditions less commonly referred (Figure 3) have been similarly reported in previous studies (Doyle & Horgan 2006; Johnston 2016). However, these conditions still fall into the scope of practice of a veterinary physiotherapist and therefore need to be promoted further to veterinarians. Results from the interviews supported the concern that a lack of understanding from veterinarians of the entirety of the veterinary physiotherapy scope of practice hindered the number of referrals. Referral rates may therefore increase if veterinarians become more aware and are educated on all the types of patients that could benefit from the inclusion of veterinary physiotherapy care. In addition, if veterinarians personally experience a benefit consulting with a veterinary physiotherapist for conditions less commonly referred, this may increase their likelihood to refer.

In comparison to small animal referrals, the overall percentage of veterinary referrals of equine patients were much less (Figure 4). This was corroborated by feedback from the interviews with veterinary physiotherapists who reported receiving much less direct equine referrals from veterinarians and relied more on word of mouth from clients. It must be noted that the response rate from equine veterinarians was considerably lower than the response rate from small animal practitioners. These results may be explained by the fact that both equine veterinarians

and veterinary physiotherapists are primarily mobile, and that mobile veterinary physiotherapy practices were significantly less likely to receive veterinary referrals than those based at a physical practice (Table III). In addition, horse owners often seek complementary therapies (including physiotherapy) without requiring a direct referral from the veterinarian (Thirkell 2017). This owner-led approach could influence the referral pattern from veterinarians. The logistical difficulties of contacting equine veterinarians, as expressed by the participants in this study, could compound this.

Previous studies have identified a lack of researched evidence into the efficacy of veterinary physiotherapy as a factor affecting the referral rate to veterinary physiotherapists (Doyle & Horgan 2006; Johnston 2016). However, the results of the present study were mixed, with some suggesting that the lack of class one research into veterinary physiotherapy did not make as much of an impact on the likelihood to refer, but rather that results from referrals would be a more significant factor. However, all participants agreed that additional high-quality evidence was required to expand and grow the field.

Another key reason cited for not referring was the concern relating to the cost to the client. Financial implications are considered when a veterinarian makes a recommendation to their clients, with perceived cost to client perceived as a primary barrier to veterinary physiotherapy referrals (Doyle & Horgan 2006; Johnston 2016). Suggestions made to mitigate this involved the inclusion of consulting with pet medical aids regarding their coverage of physiotherapy interventions.

Limitations

A lower-than-expected questionnaire response rate, particularly from the veterinarian participants, may have impacted the generalisability of these findings. This was due, in part, to distribution challenges through the SAVC portal, although the SAVA database included SAVC registered veterinarians. Similarly, as members of the SAAPRA do not include all veterinary physiotherapists listed on the SAVC website, responses may not be truly representative of the veterinary physiotherapy population. Of particular mention is that the majority of the veterinary physiotherapist participants had obtained their registration with SAVC through the prescribed qualification, which does not represent the true diversity of the veterinary physiotherapy population. Participation in the present study was voluntary, and those who participated may have had an interest in the topic, thereby skewing the results towards a positive bias.

Recommendations

Ensuring the integration of the veterinary physiotherapy profession into the veterinary field will rely on experienced benefits with involvement of veterinary physiotherapists into patient management, increasing the scientific evidence base for the profession, improving promotion of local veterinary physiotherapy practices, improving communication between the practitioners, and education regarding the scope and function of the veterinary physiotherapy profession to veterinarians and the public. Further research into the perception of veterinary physiotherapy by the public and what factors affect the demand

for it is required as, ultimately, they decide whether their animal will receive physiotherapy.

Improving veterinarians' exposure to the veterinary physiotherapy profession at the undergraduate training level may further assist the integration of veterinary physiotherapy into client management. One would assume that the amount of exposure and education received in their training would impact their likelihood to include it in their management of appropriate patients later in their careers. Getting veterinary students to work alongside veterinary physiotherapy students or registered practitioners would promote interdisciplinary collaborative practice.

Conclusion

Overall, the results from this research highlight the positive perception of the veterinary physiotherapy profession in SA following the promulgation, with most of the veterinarians agreeing that veterinary physiotherapy should be considered an integral part of veterinary healthcare. The response from the veterinarians suggests that the registration of the veterinary physiotherapy profession has had a positive effect on their likelihood to refer more patients, however, there is still considerable room for growth on the referral rates. Of concern remains that 50% of the veterinary physiotherapists continued to report not receiving regular referrals from veterinarians. While there is no previous data to compare this to, it does suggest an ongoing need for an improvement in referral pathways and strategies designed to maximise the role that veterinary physiotherapists can play in holistic animal care. There are undoubtedly benefits to collaboration regarding management between the professions aimed at ensuring that animal patients achieve the best possible outcome, it is therefore vital that both practitioners enhance their knowledge of each other's role within the multidisciplinary team.

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Conflict of interest

The authors declare they have no conflicts of interest that are directly or indirectly related to the research.

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Ethics

Ethical approval was granted by the University of Cape Town Human Research Ethics Committee (HREC:053/2022) prior to commencement.

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