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Abstract: Animal-assisted interventions (AAI) became more generalized in health care settings and their development in Europe is increasing. In France, the practice has grown in the absence of official recognition and regulation. In this context, we aim to identify the main characteristics of the French practice of AAI that can influence the establishment of a local regulation. Second, we aim to question the relevance of the model proposed by the International Association of Human-Animal Interaction Organizations (IAHAIO) distinguishing animal-assisted therapies (AAT) and (AAA) animal-assisted activities from the French practice of AAI. We interviewed 111 French handlers in AAI that work with at least one dog through an online questionnaire about their professional backgrounds and the main features of their practices of AAI (characteristics, beneficiaries, and animals). Our results indicated that AAI are at an important moment of expansion and are currently under autonomous regulation. Practices and handlers' backgrounds are heterogeneous, as well as training centers in AAI, which reflect the fragmentation of the field. This snapshot of the French practice of AAI underlined that regulations should focus first on a mandatory training, a common standard for each training center, and specific guidelines for each pathology and animal species involved. In addition, the influence of handlers' backgrounds on the type of AAI they practice must be taken into account in regulations. As animals are central in AAI, regulations should focus on their welfare and the certification of dogs to ensure both their safety and the safety of beneficiaries during sessions. Finally, the initial training in the medico-social field seems to influence the practices. Therefore, the common model distinguishing AAT and AAA could be a basis to regulate AAI in France, as in Italy. Indeed, our results underlined that a first categorization between AAI as a professional specialization or an independent profession could be useful. Still, whatever the type of practices, animal and beneficiary welfare should be at the center of regulations in a One Health perspective. As a result, the French government needs to support AAI development such as in other European countries (Sweden, Austria, and Italy) and should collaborate with handlers, organizations, health care facilities, animal professions, and scientists.

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Introduction

Practices including animals in human health care have had increased interest in the last 50 years (De Santis et al., 2018; Fine et al., 2019; Michalon, 2014). They are implemented in a wide range of settings because of their benefits for various populations such as elderly people with dementia (Olsen et al., 2019; Yakimicki et al., 2019), children and adults with autism spectrum disorders (Hill et al., 2019; Wijker et al., 2020), and prisoners (Flynn et al., 2020; Holman et al., 2020). Regarding animals, dogs are the most common species involved but numerous domestic species can be introduced in AAI such as small pets, horses, cats, and farm animals (Hatch, 2007; Maurer et al., 2008; Nimer & Lundahl, 2007). Regarding the generalization of the implementation of animals in health care settings and the need to guarantee safety, there have been efforts to define and standardize these practices. Therefore, organizations in different countries have played and still play an important role in framing and professionalizing the field (Enders-Slegers et al., 2019). As a result, the International Association of Human-Animal Interaction Organizations (IAHAIO) was established in the United States in 1992 and regrouped 90 multidisciplinary member organizations and professional associations (IAHAIO, 2019). They have the goal of improving communication among practitioners in the field of human-animal interaction and their recommendations must be adopted by all members (Enders-Slegers et al., 2019). In their most recent white paper, the IAHAIO has defined animal-assisted interventions (AAI) as *"a goal oriented and structured intervention that intentionally includes or incorporates animals in health, education and human services (e.g., social work) for the purpose of therapeutic gains in humans. It involves people with knowledge of the people and animals involved"* (IAHAIO, 2019). More specifically, they follow the distinction between animal-assisted therapies (AAT) and animal-assisted activities (AAA) that was first differentiated by the Delta Society (now Pet Partners) in their first publication about the standards of AAI (Delta Society, 1996); and added animal-assisted education (AAE) and animal-assisted coaching (AAC). In this paper, we only focus on AAA and AAT because the other types of AAI do not seem to be sufficiently implemented in France (Boizeau et al., 2017; Michalon, 2014); also we use "AAI" to designate all types of practices regardless of their specificities. To summarize, AAT must be delivered by health, education, or human service professionals, whereas in AAA handlers do not required specific training in the human field (IAHAIO, 2019; Kerulo et al., 2020; Marino, 2012). However, the pertinence of this model has been criticized (Parish-Plass, 2014; Schlote, 2009) and there are still difficulties in standardizing AAI because of the absence of official regulations (Borrego et al., 2014; Evans & Gray, 2012; Kruger et al., 2004; Parish-Plass, 2014; Schlote, 2009). Indeed, in Europe, excluding Italy, both educational programs of AAI and qualifications are not regulated and protected (Enders-Slegers et al., 2019), which leads to the difficulty of exporting a common standard model to all countries (Boizeau et al., 2017; Enders-Slegers et al., 2019; Haubenhofer & Kirchengast, 2006). However, the distinction between AAT and AAA is used in Italy to regulate the practices (Italian National Guidelines for Animal Assisted Interventions [AAI], 2015), which suggests that it could be used to regulate the practice in other European countries. Despite that, to our knowledge, there is no research comparing AAT and AAA on the field and the possible implications of the initial training of handlers as care professionals on their practice in AAI.

Focusing on France, as there is no official regulation of AAI, the practice is only supervised by organizations. The two major AAI organizations, which are cited below, are affiliated with the IAHAIO. However, they have different terminologies and definitions of AAI: the foundation Adrienne & Pierre Sommer uses "*médiation animale*" (animal mediation), whereas the association Licorne & Phénix uses "*Activités Associant l'Animal*" (Animal Associated Activities). Furthermore, in their translation of the IAHAIO white paper, Licorne & Phénix added some data such as the fact that AAA are mostly conducted by volunteers (Licorne & Phénix, 2018), positioning a clearer distinction between care professionals and the others. Consequently, there is a wide variety of

recommendations for AAI in France because the absence of regulation allows many small organizations to practice with their own standards (Boizeau et al., 2017; Rigot, 2019). Yet, the only recognized definition in France, protected by national and international intellectual property law (filing at the French National Institute of Industrial Property), is the one of Resilienfance: *"Animal mediation is a preventive or therapeutic aid relationship in which a qualified professional, also concerned with humans and animals, introduces an attuned animal to a beneficiary. This relationship, at least triangular, aims at understanding and researching attuned interactions within a defined framework within a project. Animal mediation is thus a field in itself, that of human-animal interactions, for the benefit of both (each brings its resources to the other)"* (Resilienfance et al., 2014). Consequently, there is a tendency to define the French practice of AAI as heterogeneous (de Villers & Servais, 2017; Grandgeorge & Hausberger, 2011; Michalon, 2014; Mignot et al., 2021), which can be representative of a practice without regulation.

The objective of this exploratory study is to offer a scientific basis for a future regulation of AAI in France. We hypothesized that having a clear representation of these approaches is crucial in order to standardize and regulate them. Moreover, handlers' interviews were necessary because a precedent French document underlined differences between organizations and the reality of the field, mostly about the specification of the field (Boizeau et al., 2017). Our first objective was to make an inventory of AAI in France by underlining their main characteristics. Our second goal was to question the relevance of the model proposed by the IAHAIO and used in Italy distinguishing AAT and AAA to regulate AAI in France. In other words, are there differences between AAI practiced by care professionals and non-care professionals in France, and on which criteria?

Material and Method

Participants and Recruitment

Our cohort was composed of 111 French handlers in AAI. Our inclusion criteria were to be active in AAI and to work with at least one dog because dogs constitute the most represented species in AAI (Hatch, 2007; Ng et al., 2019; Nimer & Lundahl, 2007). Handlers volunteered to participate in this study. We constructed an online questionnaire that was posted on AAI-specialized social media accounts and sent by emails from April 2018 to May 2019. It was important for us to develop an online questionnaire to include most handlers across the country to collect a representative sample of AAI in France.

Ethics

Before accessing the questionnaire, handlers were required to complete a consent form that included an explanation of the study framework, objectives, and the research ethics features. Signing this consent form guaranteed the confidentiality of their responses, the possibility of interrupting the research, and respect for their integrity and their rights in accordance with the research ethics. The collection, processing, and storage of personal data complied with the rules laid down by the General Data Protection Regulation (Voigt & Von dem Bussche, 2017).

Data Collection

A five-section questionnaire was constructed based on a literature review (Berget et al., 2013; Boizeau et al., 2017; Budahn, 2013; Delfour & Servais, 2012; Delta Society, 1996; Firmin et al., 2016; IAHAIO, 2019; King et al., 2011) and an exploratory study consisting of informal interviews and extensive observation with five individuals practicing AAI. For this article, we focused our attention on 19 items about how handlers represented their practice in AAI (Table 1; complete questionnaire in Mignot, 2021).

Analysis: Methodology and Statistics

We proceeded in two steps. A first descriptive analysis was performed by calculating means and frequencies for numerous and categorical variables. Then, because we wanted to know whether AAI practiced by handlers with an initial training in the medico-social field differed from AAI practices by handlers

Table 1 Items used in this study with the category of questions and the type of response options

Sections	Questions	Response options
Handlers' profiles	Gender	Male; female
	Age	Open question
	Years of experience	Open question
	Training in AAI	Yes; No; which institution
	Animal training	Yes; No; which field
	Training in medico-social field	Yes; No; which field
	Professional retraining	Yes; No
Current practice	Professional status	Independent; association; employee
	Integration in their initial work	Yes; No
	Other profession	Open question
	Hours per week	Open question
	Type of sessions	Group; individual
	Type of pathologies	Open question
	Type of health care facilities	Open question
Animal	Number of animals at work	1; 2; 3; 4; >5
	Animal species involved	Open question
	Dogs' age	Open question
	Dogs' starting age	Open question
	Certification	Yes/No; which field

without such training, we divided our sample into two groups: one with an initial training in the medico-social field (MS group) and the other without an initial training in this domain (NMS, non-medico-social group). We include in the MS group personal care assistant, caregiver, caseworker, occupational therapist, nurse, speech therapist, psychologist, psychomotor therapist, social worker, and facilitator. We used an unpaired *t*-test to compare the numeric variables and a chi-square or Fischer test to compare categories. These tests were performed with the software Graphpad Prism 8™.

Results

The results reported refer to 111 French handlers in AAI. Considering the importance of the initial training in the medico-social field to categorize AAI in the IAHAIO model, we separated our cohort into two groups based on their initial training as care professionals or not. The medico-social group (MS) represented 71.17% of our cohort ($N = 79$) and the non-medico-social group (NMS) represented 28.83% ($N = 32$). Psychologist (24.05%) and caseworker (16.46%) mostly represented the MS group (Table 2). Handlers were spread throughout France but were mostly in Ile-de-France (18.02%), Auvergne Rhône-Alpes (13.51%), and Nouvelle Aquitaine (11.71%), which represented the regions of three French agglomerations (respectively Paris, Lyon, and Bordeaux). They were mostly women (94.59%; $N = 105$) with a mean age of 41.3 years old. There was no significant difference between the MS and the NMS groups for handlers' gender (F; $p = 0.3523$) and their mean age (U = 11.01; $p = 0.2907$).

Handlers' Profiles (Table 3A)

With regard to their professional backgrounds, we interviewed handlers about their initial trainings in human health care (care professionals), their specific

Table 2 Professions represented in the medico-social group (MS)

Medico-social *N* = 79 (71.17%)	*N* (%)
Types of training	
Personal care assistant	7 (8.86%)
Caregiver	1 (1.27%)
Caseworker	13 (16.46%)
Occupational therapist	4 (5.06%)
Nurse	10 (12.66%)
Speech therapist	11 (13.92%)
Psychologist	19 (24.05%)
Psychomotor therapist	10 (12.66%)
Social worker	3 (3.80%)
Facilitator	1 (1.27%)

trainings on animals (animals' professionals), and their training in AAI. In total, 18.92% (N = 21) of our sample had a specific training in human health care, animal, and AAI; whereas 2.70% (N = 3) were not trained in any of these areas (Figure 1).

Handlers were 83.78% (N = 93) likely to have training in AAI, mainly in private structures (80.65%; N = 75). They were primarily trained in AAI by private small centers (36.56%; N = 35). Handlers were also trained by Agatea (22.58%; N = 21) and the Institut Français de Zoothérapie (18.28%; N = 17), which are two pioneering French training centers in AAI. Regarding the academic field, a few handlers had a university degree from the University of Clermont-Ferrand (15.05%; N = 14), from the University of Liege (2.23%; N = 3), and from the University of Paris XIII (1.08%; N = 1). Handlers had been practicing AAI for an average of 4.9 (± 0.5276) years, with a minimum of a few months and a maximum of 35 years. There was no significant difference between the MS and the NMS groups regarding their years of experience in AAI (U = 12.44; p = 0.8944), the number of handlers trained in AAI (X^2 = 2.553(1); p = 0.1101), and the type of training centers in AAI (F; p = 0.3859). However, 21.93% of our sample made a career change to work in AAI with a significantly higher proportion of those making a career change in the NMS group (61.29%; N = 19) than in the MS group (38.71%; N = 12) (X^2 = 22.09(1); p < 0.0001). Handlers initially trained in the animal field represented 37.84% (N = 42) of our sample and involved: dog trainer (50%; N = 21), veterinarian/ assistant (19.05%; N = 8), visiting dog (14.29%; N = 6), training to handle service dog (7.14%; N = 3), breeder (7.14%; N = 3), and ethologist (2.38%; N = 1). The proportion of handlers trained in the animal field was significantly higher (X^2 = 4.467(1); p = 0.0345) in the NMS group with 53.13% (N = 17) of handlers trained in comparison to 31.65% (N = 25) in the MS group.

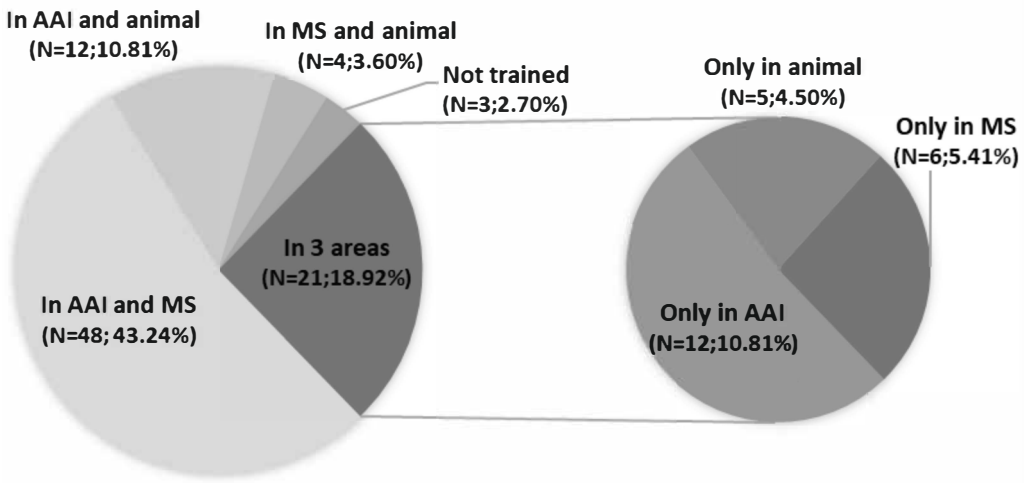


Figure 1. Repartition of handlers' training (N = 111)

Table 3A Descriptive and statistical analysis for questions about handlers' profiles including their initial trainings (in human health and animal professions) and trainings in AAI, their years of experiences, their gender, their mean age, their training centers in AAI, and their career change (MS = Medico-Social group; NMS = Non-Medico-Social group). An asterisk marks significant differences between our groups.

	MS (*N* = 79; 71.17%)	**NMS (*N* = 32; 28.83%)**	**Total (*N* = 111)**			
	***N* (%)**	***N* (%)**	***N* (%)**	**X²(df)**	***p***	**z**
Gender (females)	76 (96.20%)	29 (90.63%)	105 (94.59%)	F	0.3523	
Training in AAI	69 (87.34%)	24 (75%)	93 (83.78%)	2.553(1)	0.1101	1.598
Type of training in AAI:			N=93	F	0.3859	
Association	54 (78.26%)	21 (87.50%)	75 (80.65%)			
University	15 (21.74%)	3 (12.50%)	18 (19.35%)			
Career change*	12 (38.71%)	19 (61.29%)	31 (21.93%)	22.09(1)	<0.0001	4.700
Training in medico-social field	/	/	79 (71.17%)	NA		
Training in animal behavior*	25 (31.65%)	17 (53.13%)	42 (37.84%)	4.467(1)	0.0345	2.114
	M (SEM)	**M (SEM)**	**M (SEM)**	**Min-Max**	**Mann-Whitney**	***p***
Handler's age (years)	40.57 (1.275)	43.06 (2.145)	41.29 (1.098)	20–68	1101	0.2907
Experience in AAI (years)	5.308 (0.6980)	4.091 (0.6049)	4.957 (0.5276)	0.2–35	1244	0. 8944

Current Practice (Table 3B)

Handlers principally had an independent professional status (43.12%; $N = 47$) for their practice in AAI. The professional status did not differ between our groups ($X^2 = 3.417(2)$; $p = 0.1812$) with a higher representation for independent status, followed by associative status, and employee status. Half of our sample (48.65%; $N = 54$) integrated AAI in their initial work, and more than half of the handlers had another profession besides AAI, mostly in the medico-social field (63.49%; $N = 40$). There was a significantly higher proportion of integration of AAI in their initial profession in the MS group ($X^2 = 19.63(1)$; $p < 0.0001$). Moreover, significantly more handlers in the MS group had another profession besides AAI ($X^2 = 4.767(1)$; $p = 0.0290$). More specifically, having another occupation in the animal field was significantly more prevalent in the NMS group (F; $p > 0.0001$). Almost all our sample (90.09%; $N = 100$) had a stable practice of AAI and most handlers (60.36%; $N = 67$) practiced AAI principally in group sessions. The proportion of handlers who had a stable AAI practice (compared to "punctual") was significantly higher in the MS group ($X^2 = 3.936(1)$; $p = 0.0473$); whereas the proportion of group sessions was higher in the NMS group (78.13%; $N = 25$) than in the MS group (53.16%; $N = 42$) ($X^2 = 5.930(1)$; $p = 0.0149$). Finally, about the hours of AAI per week, we were only able to analyze 93 answers because a few handlers did not respond with a numerical value; results indicated a mean of 10.2 hours of AAI per week. There was no significant difference in hours per week ($U = 934$; $p = 0.8009$). Characteristics of beneficiaries indicated that handlers worked with a mean of 1.92 pathologies and 2.22 health care facilities. As the questions on pathologies and health care facilities were open, the answers were numerous. We categorized the data (see Box 1) and analyzed the first two cited by each handler. Handlers worked

Box 1—Categorization

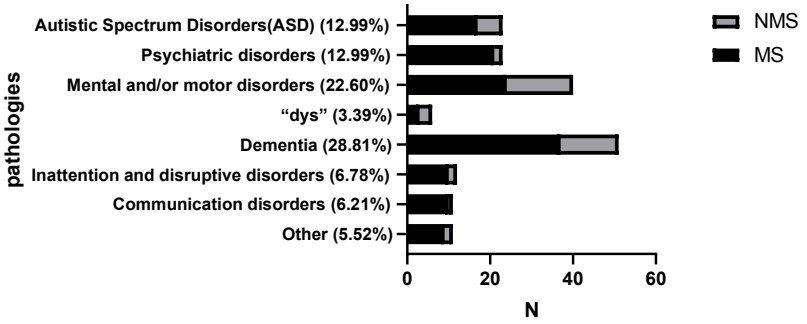
Pathologies:

- **Inattention and disruptive behavior** = behavior disorders, oppositional disorders, attention-deficit hyperactivity disorder (ADHD)
- **Dementia** = Alzheimer, cognitive disorders in elderly, Parkinson
- **'dys' conditions** = dyslexia, dyspraxia, dysphasia, dyscalculia, etc.
- **Mental and/or motor disabilities** = multiple disabilities, intellectual disability, trisomy 21
- **Autistic spectrum disorder** = autism, pervasive developmental disorders (PDD)
- **Communication disorders** = disorders of oral and/or written language
- **Psychiatric disorders** = anxiety, depression, psychosis, schizophrenia, prison
- **Other*** = stroke, anorexia, head trauma, school failure, visual impairment, cancer

Health care facilities:

- **Schools** = school, nursery, recreation center
- **Nursing homes**
- **Medico-social establishment for children** = social Children House, Therapeutic Educational and Pedagogical Institutes, medico-educational institutes
- **Medico-social establishment for adults**: foyers, daycare centers, medical center, Nursing home for heavy disabled persons, ESAT (center provided care through employment)
- **Hospitals**: psychiatric service
- **Private practice**
- **Prison**
- **Other***: association, maternal assistance unit, sensory education institute

* mentioned less thatn 3 times



This figure represents the repartition of pathologies between handlers (n=177). The total percentage of each pathologies is write next to the category. MS = medico-social group; NMS = non medico-social group.

Figure 2. Repartition of pathologies between the two groups

mostly with elderly people with dementia (28.81%; $N = 51$) and people with a mental and/or motor disability (22.60%; $N = 40$) (Figure 2). The most cited health care facilities were the nursing homes (31.21%; $N = 49$) and medico-educational institutes (MEIs) for adults (18.47%; $N = 29$). Handlers were working with a greater number of different pathologies in the MS group (2.03 pathologies) than in the NMS group (1.6 pathologies) ($U = 957$; $p = 0.0327$). However, there was no significant difference between the two groups about the type of pathologies ($X^2 = 3.931(7)$; $p = 0.7877$), the number of health care facilities (U =

Table 3B Descriptive and statistical analysis for questions about handlers' current practice in AAI including their professional status, the integration of AAI in their initial profession, other profession, stability of AAI, type of sessions, pathologies and facilities encountered, and hours per week (MS = medico-social group; NMS = non-medico-social group). An asterisk marks significant differences between our groups.

	MS (*N* = 79; 71.17%)	NMS (*N* = 32; 28.83%)	Total (*N* = 111)			
	***N* (%)**	***N* (%)**	***N* (%)**	**X²(df)**	***p***	**z**
Professional status				3.417(2)	0.1812	
Association	26 (33.33%)	13 (41.94%)	39 (35.78%)			
Independent	32 (41.94%)	15 (48.39%)	47 (43.12%)			
Employee	20 (35.78%)	3 (21.10%)	23(21.10%)			
Integration in their initial work*	49 (62.03%)	5 (15.63%)	54 (48.65%)	19.63(1)	<0.0001	4.430
Other profession*	50 (63.29%)	13 (40.63%)	63 (56.76%)	4.767(1)	0.0290	4.430
Other profession in medico-social*	40 (80%)	0 (0%)	40 (63.49%)	F	<0.0001	
Other profession with animals*	2 (4%)	9 (69.23%)	11 (17.46%)	F	<0.0001	
Stability*	74 (93.67%)	26 (81.25%)	100 (90.09%)	3.936(1)	0.0473	1.984
Group sessions*	42 (53.16%)	25 (78.13%)	67 (60.36%)	5.930(1)	0.0149	2.435
Pathologies	*N* = 131	*N* = 46	*N* = 177	12.04(7)	0.0993	
Communication disorders	10 (7.63%)	1 (2.17%)	11 (6.21%)			
Inattention and disruptive disorders	10 (7.63%)	2 (4.35%)	12 (6.78%)			
Dementia	37 (28.24%)	14 (30.43%)	51 (28.81%)			
"dys"	3 (2.29%)	3 (6.52%)	6 (3.39%)			
Mental and/or motor disorders	24 (18.32%)	16 (34.78%)	40 (22.60%)			
Psychiatric disorders	21 (16.03%)	2 (4.35%)	23 (12.99%)			
Autistic spectrum disorders (ASD)	17 (12.98%)	6 (13.04%)	23 (12.99%)			
Other	9 (6.87%)	2 (4.35%)	8 (5.52%)			
Type of institutions	*N* = 113	*N* = 44	*N* = 157	8.697(1)	0.2751	
School	3 (2.65%)	5 (11.36%)	8 (5.10%)			
Nursing homes	37 (32.74%)	12 (27.27%)	49 (31.21%)			
Medico-social establishment for children	15 (13.27%)	10 (22.73%)	25 (15.92%)			
Medico-social establishment for adults	21 (18.58%)	8 (18.18%)	29 (18.47%)			
Hospital	13 (11.40%)	4 (9.09%)	17 (10.83%)			
Private practice	16 (14.16%)	3 (6.82%)	19 (12.10%)			
Prison	4 (3.54%)	1 (2.27%)	5 (3.18%)			
Other	4 (3.54%)	1 (2.27%)	5 (3.18%)			
	M (SEM)	**M (SEM)**	**M (SEM)**	**Min-Max**	**Mann-Whitney**	***p***
Hours per week	9.86 (1.194)	11 (2.054)	10.19 (1.031)	1–55	934	0.8009
Number of pathologies*	2.03 (1.062)	1.59 (0.837)	1.901 (0.09659)	1–5	957	0.0327
Number of facilities	2.03 (0.1915)	2.73 (0.4205)	2.220 (0.1822)	1–10	989	0.1431

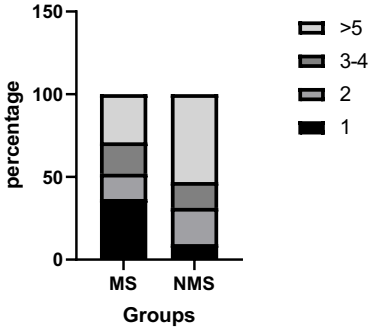
989; $p = 0.1431$); and the type of health care facilities ($X^2 = 10.19(12)$; $p = 0.5991$).

Animals in AAI (Table 3C)

Handlers worked predominantly with "more than five animals" (36.04%; $N = 40$), closely followed by working with "only one" animal (28.83%; $N = 32$). Regarding the number of animals at work, there was a significant difference between the two groups ($X^2 = 10.28(3)$; $p = 0.0163$) (Figure 3). Furthermore, the comparison of "only one animal" and "more than one" underlined a significant higher proportion of handlers that worked with more than one animal in the NMS group (90.63%; $N = 32$) compared to the MS group (63.29%; $N = 50$) (F; $p = 0.0048$). Almost half of respondents (47.75%; $N = 53$) worked with only one species (dogs), but one-third worked with more than four different species (23.42%; $N = 26$). The other most cited animal species were small pets (35.46%; $N = 40$) and cats (12.19%; $N = 14$). However, there was no difference between our groups for the number of different species ($X^2 = 0.7456(2)$; $p = 0.6888$) and the type of species ($X^2 = 2.937(6)$; $p = 0.8167$).

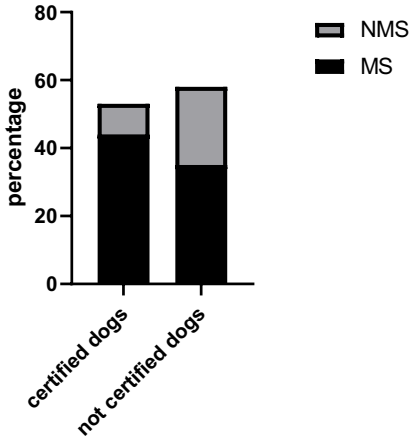
Characteristics of the Dogs

Handlers also responded to a section about their therapy dogs. Since some handlers answered for one dog and others for two dogs, we only analyzed the data for the first dog mentioned. Half of the dogs were females and 67.57% ($N = 75$) of the dogs were sterilized. The mean age of the dogs was 5.09 years old (±0.3213). There was no difference between the two groups about the dog's gender ($X^2 = 0.8075(1)$; $p = 0.3689$), their sterilization (F; $p = 0.5064$), and their age (U = 979; $p = 0.0620$). Dogs started to work in AAI around two years old (±2,437), and they started to work significantly later in the NMS group where the mean age was 39 months compared to 20 months for the MS group (U = 779.5; $p = 0.0013$). Half of the dogs were certified to work in AAI and the number of certified dogs was significantly higher in the MS group than in the NMS group ($X^2 = 6.939(1)$; $p = 0.0084$) (Figure 4).



This figure represents the representation of the number of animals per handlers. This was a close question with the possibility to answer : "1", "2", "3-4" or ">5" (more than five animals). (MS = Medico-Social group; NMS = Non Medico-Social group)

Figure 3. Number of animals per handler*(p = 0.0163)



This figure represents the certification of dogs in our sample. (MS = Medico-Social group; NMS=Non-Medico-Social group).

Figure 4. Certification of therapy dogs*(p = 0.0084)

Discussion

This exploratory research aimed to characterize the French practice of AAI in order to provide the basis for future regulation. Our primary objective was to highlight a clear representation of the French AAI characteristics because of the absence of current regulation. Our second aim was to question the relevance of the common model used to frame AAI that distinguishes AAT and AAA to regulate the practices in France. To this end, we interviewed 111

Table 3C Descriptive and statistical analysis for questions about therapy animals including the number of animals at work, the number of species per handler, the animal species involved, and for therapy dogs: their gender, their sterilization, their certification, their age, and their starting age (MS = medico-social group; NMS = non-medico-social group). An asterisk marks significant differences between our groups.

	MS (*N* = 79; 71.17%)	**NMS (*N* = 32; 28.83%)**	**Total (*N* = 111)**			
	***N* (%)**	***N* (%)**	***N* (%)**	**X²(df)**	***p***	**z**
Number of animals at work*				10.28(3)	0.0163	
1*(F; $p = 0.0048$)	29 (36.71%)	3 (9.38%)	32 (28.83%)			
2	12 (15.19%)	7 (21.88%)	19 (17.12%)			
3-4	15 (18.99%)	5 (15.63%)	20 (18.02%)			
>5	23 (29.11%)	17 (53.13%)	40 (36.04%)			
Number of different species				0.7456(2)	0.6888	
1	40 (50.63%)	13 (40.63%)	53 (47.75%)			
2–3	21 (26.58%)	11 (34.38%)	32 (28.83%)			
>4	18 (22.78%)	8 (25%)	26 (23.42%)			
Type of species	*N* = 100	*N* = 41	*N* = 141	2.937(6)	0.8167	
Only dogs	40 (40%)	13 (31.71%)	53 (37.58%)			
Small pets	34 (34%)	16 (39.02%)	50 (35.46%)			
Cats	9 (9%)	5 (12.19%)	14 (9.93%)			
Horses	8 (8%)	2 (4.88%)	10 (7.09%)			
Donkeys	4 (4%)	1 (2.44%)	5 (3.55%)			
Farm animals	3 (3%)	3 (7.32%)	6 (4.26%)			
Birds	2 (2%)	1 (2.44%)	3 (2.13%)			
Dog's gender (females)	42 (53.16%)	14 (43.75%)	56 (50.45%)	0.01773(1)	0.8941	0.1331
Dog's sterilization	55 (69.62%)	20 (62.5%)	75 (67.75%)	0.4252(1)	0.5144	0.650
Dog's certification*	44 (55.70%)	9 (19.98%)	53 (47.74%)	6.939(1)	0.0084	2.634
	M (SEM)	**M (SEM)**	**M (SEM)**	**Min-Max**	**Mann-Whitney**	***p***
Dog's age (years)	4.690 (0.3548)	6.109 (0.6651)	5.099 (0.3213)	1–16	979	0.0620
Starting age* (months)	20.04 (19.29)	39.44 (33.34)	25.63 (2.437)	2–120	779.5	0.0013

French handlers through an online questionnaire. We assume that our sample is representative of the French practice of AAI because handlers were dispatched in various localizations in France. In addition, as there is no official data about the number of handlers who practice AAI in France, this study can be considered as a pilot for further investigations.

Characteristics of the French Practice of AAI

Our first aim was to give a snapshot of the French practice of AAI to provide the basis for its regulation. Since this study is applied research, we have chosen to focus, in this discussion, on the indispensable characteristics to be taken into account for future regulation.

First, the interviews of handlers indicated a strong implantation of AAI in France as well as a need for regulation, whether to secure existing practices or to frame future ones. Handlers' years of experience in AAI underlined a mean of five years and a maximum of 35 years, suggesting a recent development of these practices in France, which corresponds to other European countries (De Santis et al., 2018; Haubenhofer & Kirchengast, 2006; Simonato, 2018). In addition, most handlers mentioned a stable practice in AAI indicating an establishment of AAI in France and a recognition of their benefits by health care facilities. Despite the lack of regulation in France, most handlers were trained in AAI, which reflects an autonomous professionalization of handlers (Boizeau et al., 2017). However, the variety of training centers mentioned by handlers underlined the absence of structuration of the field and possible difficulties in regulating it because of the specificity of each AAI (Simonato, 2018). Indeed, AAI trainings have variations in their theories, practices, durations, and prices (Boizeau et al., 2017) (Table 4), and therefore in the quality of the training. Although there was not a significant difference in training between our groups, a slight trend shows that care professionals were more likely to be trained in AAI at university compared to non-care professionals. Moreover, training centers were mostly represented by private facilities, reflecting the lack of recognition about these practices in the academic community in France. On the other side, it can also be linked to the difficulty of including this practice, which is interdisciplinary in nature, in an academic discipline. In France, the only regulated training and protected title (recognized in the National Directory of Professional Certification in France) is "project manager in animal mediation" proposed by Agatea since 2018 (Agatea is a private training center created in 2006). We believe that France will follow the model of other countries by developing university courses on human-animal studies (Enders-Slegers et al., 2019). For instance, the first professional license in AAI has been created at University Paris Nanterre and will welcome its first students this year. Regulations must support the autonomous professionalization of handlers and protect the profession by requiring mandatory training or by validating the learning of experienced handlers. The official recognition of AAI would lead to the development of university trainings, and also facilitate its implementation in health care facilities.

Second, the professions, beneficiaries, and facilities mentioned were various, which confirmed the idea of a heterogeneity of AAI in France (Boizeau et al., 2017; Michalon, 2014; Mignot et al., 2021). In fact, handlers with an initial training in the medico-social field were predominant in our sample. Furthermore, they represented only the paramedical field (psychologist, nurse, speech therapist, etc.), which is consistent with a precedent study about the Italian AAI (De Santis et al., 2018). On the other hand, one-third of our sample had an initial training in animal professions, which included mostly dog trainers and veterinarians. As a result, regulations should consider these differences of professional backgrounds and their influence on the types of AAI that the handlers will practice. Indeed, the heterogeneity of AAI and handlers' backgrounds was a complicating factor for the regulation of practice in Italy (Simonato, 2018). Similarly, pathologies and facilities mentioned were various. The most cited pathologies represented elderly people with dementia, people with a mental and/or motor disability, and people with an autistic spectrum disorder (ASD), which is consistent with the literature (Mandrá et al., 2019). However, handlers mentioned also pathologies that are less represented in studies (i.e., communication disorders, inattention and disruptive disorders, "dys," anorexia, and cancer), highlighting the importance of developing research on these pathologies and creating guidelines adapted to each one.

This heterogeneity of practice was also noticeable in handlers' representations in AAI as a professional specialization (another tool integrated partially in their profession) or an independent profession (full-time profession). In our cohort, most handlers worked in AAI as a professional specialization with a relatively low numbers of hours per week (<10 hours) and a majority of them had another profession on the side. Especially, more than half of the

Table 4 Brief description of each recognized training based on the brochure available on their website.

Trainings	Hours / Cost	Accessibility / Degree	Courses
Degree of Project Manager in Mediation by Animals ® (Agatea)	140 hours 3800€	Professionals in the medico-social or educational field Or in the case of career change: having a bachelor and work experience in the helping relationship In all cases, having a professional project in which animals are involved in the helping relationship ***Degree***: allows to access to a 2 years postsecondary education + ACACED*	***Unit 1***: Conducting an AAI program on behalf of an institution and/or on their own account ***Unit 2***: Create and manage a structure of social and solidarity economy specific to the field of mediation by animals ***Unit 3***: To know and choose a mediating animal in relation to the ethological approach of the human-animal relationship ***Unit 4***: Communicate with the different actors in the triangulation process
University Degree "Helping relationship through mediation Animal" (Clermont-Ferrand, France)	112h Individual registration: 1300€ Registration with support: 2300€	Holder of a license (Bac + 3) and obligation of an autonomous practice of animal mediation ***Degree***: University degree	***Unit 1***: Presentation of the degree and implementation of the work method ***Unit 2***: Evaluation of the practice, notions of ethology and behavior of the animal, veterinary aspects ***Unit 3***: Training in helping relationships through mediation ***Unit 4***: Networking and knowledge assessment
University certificate "Animal mediation and relations to nature" (Liege, Belgium)	24 months + 40 hours of internship 1800€	Holder of a 2nd cycle higher education degree (or equivalent) Candidates who do not hold the required degree can use 5 years of useful experience ***Degree***: 14 European Credit Transfer System (ECTS)	***Unit 1***: Introduction to animal ethology ***Unit 2***: Acting with respect: ethics, philosophy, and practice of interactions with animals ***Unit 3***: The structures that connect us to animals: culture, imagination, and communication ***Unit 4***: Animal mediation devices and their evaluation ***Unit 5***: Spaces for mediation and collaboration ***Unit 6***: Environmental psychology and relations to nature ***Unit 7***: Practical openings and experience sharing ***Unit 8***: Self-analysis exercises
University Degree "Human/ Animal Relations - Mediation, Therapy and Animal Welfare" (Paris 13, France)	280 hours Individual registration: 3 690€ Registration with support: 4 920€ + User fees: 261.10€	Holder of a graduate degree in psychology, biology, sociology, anthropology, and social intervention, or an equivalent title + 1 year of professional practice Alternatively, holder of a Bac+3 degree + 2 years of professional experience Or, minimum 5 years of relevant professional or personal experience in the field of training ***Degree***: University degree	***Unit 1***: Psychology ***Unit 2***: Ethology ***Unit 3***: Socioanthropology ***Unit 4***: Human-animal relationship ***Unit 5***: Internship supervision

*ACACED = Attestation of Knowledge for Companion Animals of Domestic Species

handlers mentioned the integration of AAI in their initial work, which also supports the idea of AAI as a professional specialization added as a complementary approach to their job. Similarly, most handlers worked in AAI with a small number of animals and pathologies. As mentioned by Boizeau et al. (2017), this consideration of AAI as an area of specialization involves mostly handlers with an initial training (with humans or animals). On the other hand, around 40% of handlers seemed to work in AAI as their sole profession. We can suppose that handlers with only a training in AAI (10.81% of our sample) consider AAI as an independent profession. Consequently, the construction of regulations needs to take into account this distinction between AAI as a professional specialization or an independent profession.

Finally, we can put an accent on the fact that our sample was almost entirely composed of women. This is not really a point of interest for the regulation of practice but it is an important feature that characterizes practice. This point has been raised in the literature on human care (Brugère & Tronto, 2009; Roy et al., 2011), with the idea that "taking care" is often seen as a characteristic of femininity/motherhood (Brugère, 2009; Coulter, 2016). However, this characteristic has been little studied in AAI, whereas it seems to be related to human and animal care (Berget et al., 2008; Michalon, 2014).

To summarize, AAI seem to be well implemented in France and appeared to be under autonomous regulation. However, government needs to support its development such as is done in Sweden, Austria, and Italy (Enders-Slegers et al., 2019) to secure the practice for handlers, beneficiaries, and animals. On one hand, our study underlined that the regulation should focus first on a mandatory training for handlers (or the professional equivalence) and a common standard for training centers in AAI. On the other hand, regulations should take into account each AAI as individual practice. Consequently, the regulation should take into account the initial training of the handlers and the various type of ways of practicing AAI (time consecrated to AAI, type of facility, professional status). A focus should also be put on the creation of specific guidelines for each pathology involved.

Focus on Therapy Animals

Faced with the lack of data on the animals involved in AAI in the literature, even if "AAI would not exist without animals" (Fine et al., 2019), our objective was to question their characteristics and more specifically those of therapy dogs. In our study, the handlers worked mostly only with dogs (38%) or dogs and small pets such as guinea pigs or rabbits (35%). The predominance of dogs could be related to our inclusion criterion of working with at least one dog, but this is consistent with studies about other countries (De Santis et al., 2018; Haubenhofer & Kirchengast, 2006; Serpell et al., 2020). Indeed, dogs are well adapted to therapeutic settings because of their availability, trainability, and predictability (Glenk, 2017). The second position of small pets contrasts with the study of De Santis et al. (2018) about AAI in Italy, where horses were the second most represented animal species. On one hand, it is probably due to the fact that, in France, the practice of AAI with horses represents an independent and regulated field (Michalon, 2014). On the other hand, it can be due to the fact that small pets are increasingly introduced in AAI because of their small size and toy appearance (Loukaki et al., 2010). However, the variety of animal species involved in AAI points to the necessity to take into account the needs of each species in future guidelines. Moreover, as we mentioned before, only a few handlers had a training in animal professions. Therefore, an in-depth study of French AAI training programs is needed to assess whether knowledge of animal behavior and animal welfare is sufficient to ensure their safety. As a result, regulation must involve experts on animals of each species to create guidelines that ensure animal well-being. This point is crucial because the lack of training in animal behavior can lead to a lack of knowledge about stress-associated behaviors and therefore risks for both animals and humans/beneficiaries (Fejsáková et al., 2009). Training should include courses in animal welfare, animal behavior, and ethics of animal

care. On the other side, our sample was also represented by animal professionals as in the French report of Boizeau et al. (2017). It is interesting because animal specialists are rarely put forward when talking about AAI even though they are experts of the "animal" part of these practices. Indeed, dog trainers are professionals of dog behavior and veterinarians of animal health; these trainings can be useful to guarantee the benefits for the animal in AAI. As a result, regulation must include animal professionals and give them a specific role in structuring AAI. For instance, in Italy, AAI teams are built on the diamond model including a veterinarian and an animal handler in charge of the animal and another person in charge of the beneficiary (Simonato, 2018).

Focusing on dogs, the certification concerned only half of them, which can be problematic because not all dogs are cut out for AAI even if they are good companion dogs (IAHAIO, 2019; Mongillo et al., 2015). However, because of the absence of mandatory certification, this underlines again the autonomous professionalization of handlers. Future regulation must focus on certifications of human-animal teams and the professionals who can deliver them (dog trainers, ethologists, training centers, and veterinarians). In addition, as the practice of AAI seems heterogeneous in France, the certification should include the coupling of behavioral assessment and situational simulation to properly select therapy dogs (Fredrickson-MacNamara & Butler, 2006a; Lucidi et al., 2005; Mongillo et al., 2015). Finally, one characteristic caught our attention because it can affect the well-being of therapy dogs: Most dogs were between 2 and 5 years old and their starting age varied from a few months to more than 10 years. However, Lefebvre et al. (2008) warned that before they are one year old, animals lack social maturity and may be more at risk of contracting infectious diseases. In addition, it has been suggested that older dogs deal better with stress during AAI sessions (Clark et al., 2019; King et al., 2011). Some organizations such as the A.A.I.I. (A.A.I.I., 2015) suggested the age of 12 months old to begin AAI but underlined that the age of maturity depends on each breed. On the other side, the positive integration of a young dog in AAI can be an opportunity for the dog's socialization in various situations. The introduction of a dog should be meticulous and careful attention should be paid to the workload and the stress it causes. Consequently, regulation should produce guidelines that take into account dogs' development.

To summarize, the selection of the right animal for AAI and handlers' training in animal behavior must be included in the regulations because it guarantees a practice respecting One Welfare. As well as for the general regulation of the practice and handlers' training, regulations about therapy dogs must be adapted for different AAI. Indeed, it concerns the personality of the dog but also the dog's characteristics (age, gender) according to the expected work. This represents suitability, which is the fourth criterion for the certification of Pet Partners, which is defined as *"the selection of the right animal for the right job"* (Fredrickson-MacNamara & Butler, 2006b). Moreover, in its white paper, the IAHAIO emphasizes the handler's responsibility for the welfare of his or her animals and knowledge about "*animals' well-being needs, including being able to detect signs of discomfort and stress*" (IAHAIO, 2019). Therefore, guidelines should respect the needs of each species involved, and mobilize and train the principal actors in the selection and monitoring of animals, such as veterinarians and animal behaviorists.

Is There an Impact of Initial Training of the Handler on AAI?

Our second aim was to question the relevance of the common model used to categorize AAI to the French practice by comparing the AAI practiced by care professionals (MS) and noncare professionals (NMS). In other words, we aim to question whether the distinction between AAT and AAA may be useful for the regulation of AAI in France since it is primarily based on the involvement of a health professional (IAHAIO, 2019). As mentioned before, we only focus on AAA and AAT because the other types of AAI (AAC and AAE) do not seem to be sufficiently implemented in France (Boizeau et al., 2017; Michalon, 2014).

On one hand, it seems that the major distinction between care professionals and other handlers is that they practice AAI as a professional specialization. This is in line with our precedent findings underlining a distinction between AAI as an area of specialization and an independent profession. Indeed, care professionals were significantly more likely to integrate AAI in their initial profession (psychologist, speech therapist, nurse, etc.) and to work in one-on-one sessions. This can be due to the possibility to integrate AAI in their initial profession in health care facilities, whereas it is more complicated for noncare professionals. As underlined in a precedent article, it can also be linked to the willingness of care professionals to integrate an animal into their practice to allow another, more "humane" form of care (Mignot et al., 2021). Therefore, the way care professionals work in AAI is close to the definition of AAT: "*AAT is delivered and/or directed by a formally trained (with active licensure, degree or equivalent) professional with expertise within the scope of the professional's practice*" (IAHAIO, 2019). In contrast, handlers that were not care professionals were more likely to retrain, to work on an occasional basis and in group sessions. Therefore, AAI practiced by noncare professionals appears more scattered. However, the number of different pathologies was only slightly significantly higher in the care professionals group (MS), which contrasts with the idea of a professional specialization. Therefore, the AAI practiced by care professionals seems to be framed in relation to their initial profession, which is accorded to the IAHAIO definition of AAT and the idea of a separation between AAI as a professional specialization and an independent profession in France (Boizeau et al., 2017). As a result, regulation must take into account that AAI can be practiced as either a professional specialization or a profession in its own right and that the initial training of handlers in the medico-social field has an impact there.

On the other hand, there were also differences between our groups regarding their knowledge about animals. In fact, there were significantly fewer handlers specifically trained in animals in the care professionals group than in the other group. The proportion of handlers specifically trained in animals when they were initially care professionals is around 30%. This has to be considered by the future regulation because IAHAIO stated that even in AAT, "*professionals must have adequate knowledge about the behavior, needs, health and indicators and regulation of stress of the animals involved*" (IAHAIO, 2019). Therefore, no matter how they practice AAI, handlers need to be trained in animal behavior. Another point of interest is that noncare professional handlers were significantly more likely to have been initially trained in animal professions and to have another profession with animals beside AAI. As a result, future studies are needed to clarify the representativeness of animal professionals in AAI and to investigate how their initial training affects their practice in AAI.

Regarding animal welfare, we can note that care professionals worked with fewer animals compared to the noncare professionals. It could be linked to the precedent assumption that care professionals worked in AAI in a more specialized way. In contrast, this may be related to the fact that they are less trained in animal behavior and therefore less comfortable working with a variety of species. Focusing on the certification of dogs, care professionals appear to be more likely to certify their therapy dogs than noncare professionals are. It can be explained by the fact that when handlers are animal professionals, they feel they have the knowledge to certify their dogs themselves. In contrast, the dogs of care professionals started AAI earlier than the dogs of noncare professionals. This could be related to a punctual introduction of dogs because they have the possibility to integrate AAI in their initial profession. However, as we mentioned before, an early starting age can jeopardize the dog's welfare and needs to be taken into consideration. Regulation should ensure that all human-animal teams are certified to work in AAI, regardless of their background. In addition, if care professionals introduce dogs earlier, guidelines must state the conditions of this integration.

Finally, some data were not significant but need further investigation because they can influence the regulation of AAI in France. The initial training of handlers in the medico-social field seemed to influence the type of pathologies they work with. For

instance, psychiatric disorders and communication disorders were more often mentioned in the care professionals group than in the other. In contrast, mental and/or physical disorders and dementia were more often cited in the noncare professionals group. This needs further investigation because it can indicate a specification in population in relation to the initial training of handlers as care professionals or not. Although, in their study, Boizeau et al. (2017) found that with the exception of therapists employed in a health care facility where AAI is a direct function of their initial profession and the facility, there was no rule of specificity of the targeted population. Finally, the absence of training of some handlers in the medico-social field underlines that some of them work with vulnerable populations without having had training about these pathologies and the associated symptoms.

To summarize, the initial training of handlers in the medico-social field can be a way to distinguish practices in AAI in France. Therefore, the model of the IAHAIO can be used as a basis for regulating the French practice of AAI. Indeed, AAI practiced by care professionals seems to correspond to the definition of AAT as a professional specialization complementary to their initial training. These types of practice involve a variety of professions in the field of care but they can probably also include AAE and AAC. On the other hand, AAI practiced by noncare professionals seems to be a distinct profession and a scattered approach. In addition, there were no volunteers in our study but future regulations of the practice need to address this and create specific guidelines for them. Regulations must take into account different practices and create standards for each of them because the variety of handler profiles correspond to the variety of settings (Mignot et al., 2021). As mentioned by other authors, there is a need to both clarify the different practices and include the richness of this field to ensure the safety and quality of AAI (Fine et al., 2019; Parish-Plass, 2014). However, regardless of the type of practice, it is important to emphasize the need for handlers to be trained in the populations and animal species they work with. Moreover, recommendations about animal welfare should state the "right" number of animals per handler, the minimum mandatory training in animal behavior, the certification of dogs, and the adjustment of the practice to the age of the animal. Indeed, animal welfare in AAI is a current concern, so regulation, organizations, research, and handlers need to come together to make practice safer for animals. Finally, it would be interesting to consider the place of the animal professions in the categorization of AAI, such as having a specific practice like care professionals.

Limitations and Future Research Directions

The representativeness of our sample could be discussed because the questionnaire was limited to handlers working with at least one dog, which excludes some of the AAI made by handlers who do not work with the dog species. Just as regulation must focus on the specific needs of each species, research is needed on the impact of AAI for each animal species. Confronting the diversity of training centers in AAI, further investigations of each training program can be useful to highlight their similarities and differences. In addition, it would be interesting to question if the predominance of care professionals in our sample is representative of the French practice of AAI. Moreover, since the fields in human health care are varied, another study could compare the practice of AAI according to each of these sectors.

Recommendations for Regulation in France

AAI are well implemented in France but are delayed on the construction of official regulations. The French government and organizations should follow the model of Sweden, Austria, and Italy that are establishing legal regulations regarding AAI (Enders-Slegers et al., 2019). As a result, if the

French government regulates the practice of AAI, it will then be considered as a precursor in the regulation of the field of human-animal interactions. The regulation of AAI is important to secure practices as much for the beneficiaries as for the handlers, the health care facilities, and the animals. Yet, the field is under autonomous regulation but most handlers seem to be concerned by AAI training. As underlined in this study, the IAHAIO model can be used as a basis to regulate AAI in France but further investigations are needed to evaluate the country specificities. Therefore, it would be interesting for France to follow the Italian regulation of AAI. The Italian government has started framing the practice of AAI since 2009 with the creation of the Italian National Reference Centre for AAI (NRC AAI), which was then supported by the writing of the National Guidelines for AAI in 2015 (Simonato, 2018). In the same way, the first step for a regulation of the French practice is a national referencing to have a realistic idea of the practice on the field. Second, there is a need to define a training repository to ensure the same bases to all handlers and then adapt the secondary standards according to their background. In view of the autonomous regulation and heterogeneity of the practice, flexibility is needed to include the richness of AAI while making them safe: guidelines for each type of intervention, recommendations for the animal species and the pathologies involved, the role of handler based on their initial training, and so on. Consequently, guidelines should be constructed through a collaboration between handlers, organizations, training centers, health care facilities, animal professionals, and scientists. Handlers must be considered as principal actors in the construction of this regulation because there is a gap between current classifications and the reality of the field (Boizeau et al., 2017; Kruger & Serpell, 2010). Consequently, a university program certified by the International Society for Animal Assisted Therapy (ISAAT) and the European Society for Animal Assisted Therapy (ESAAT), which are the organizations that ensure the quality standards of educational programs in AAI, is needed in France. An accent must be put on the competencies of the professionals involved to ensure the safety of both beneficiaries and animals during AAI sessions. Finally, as we mentioned above, the regulation of AAI should not be anthropomorphic but consider animal welfare as equally important. Regardless of the type of AAI, handlers must be trained in animal behavior, the needs of the animal species and the individual animal, and the human-animal relationship in caring for animal welfare (Glenk, 2020; IAHAIO, 2019). Therefore, more research should focus on the selection of dogs and respect of therapy dogs (and other animal species involved in AAI) for ethics, safety, and quality practices. For instance, research needs to be done on the selection of dogs, including their characteristics, the context in which they are chosen, and handler representations on the favorable and prohibitive criteria for working in AAI. On second thought, the study of animal welfare in AAI must be done by taking into account the representations of the handlers (since they are the main people responsible for their animals) as well as by coupling behavioral analyses of the sessions to identify risk factors.

Conclusion

This exploratory study about the characteristics of the French AAI outlined a snapshot of the main features of AAI in France based on the interviews with 111 handlers. Our results underline that AAI are already well implemented in France but lack regulation. Consequently, the professional backgrounds of handlers as well as the types of AAI are heterogeneous, even if efforts at autoregulation are made. The comparison of practices, whether according to the initial training of medico-social handlers or not, has highlighted that care professionals practice AAI as a professional specialization and in a more individual way than noncare professionals. Therefore, the heterogeneity of the AAI represents the richness of the practice but also the possible barriers to its regulation. Efforts must be made to standardize guidelines and national regulations to ensure the quality and safety of the sessions for both humans and animals involved. Therefore, one of the biggest challenges

is to adopt a multidisciplinary approach (including scientists, organizations, and professionals) to define the different practices and the required skills.

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