

Acceptance of Assistance Dogs and Changes in Perceived Knowledge of the Act Related to Assistance Dogs for Persons with Disabilities in Japan

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Abstract The Act Related to Assistance Dogs for Persons with Disabilities (here after referred to as The Act) was enacted in Japan in 2003. This Act requires public facilities, public transportation, and private businesses serving the general public to allow access to assistance dogs, including guide dogs, service dogs, and hearing dogs that are accompanying people with physical impairments. In addition, in 2007, it was amended to oblige workplaces to grant access to these dogs. Adults ($N=3000$; 1500 men, mean age 44.6 years, age range 19 to 69 years) that participated in this study were asked about their knowledge regarding the Act and assistance dogs, their agreement with the requirement for compulsory acceptance of assistance dogs, and their attitudes about sharing public spaces with these dogs. The levels of perceived knowledge of the Act were compared between 2004 and 2011. The results indicated that the level of familiarity with the Act was very low and was declining. Knowledge about the Act and awareness about assistance dogs were positively associated with increased positive feelings about being near assistance dogs. The need for dissemination of information about the Act and about assistance dogs is suggested.

Key words: assistance dog, knowledge, attitude, disability, the Act

I. Introduction

1. Background and present conditions

In Japan, the *Act on Assistance Dogs for Persons with Disabilities* (Act No. 49 of May 29, 2002), (the Act) was fully enforced in 2003 in the hope of facilitating people with disabilities to live independently, and actively participate in society. Assistance dogs for people with disabilities (assistance dogs) is the general term for guide dogs that assist visually disabled people in walking, hearing dogs that help hearing disabled people, and service dogs that assist physical movements of people with ambulatory disabilities.

The Act obligates training facilities to raise well-trained assistance dogs and to follow-up these dogs, as well as public facilities and businesses to allow access to such dogs so that assistance dog users can readily engage in social activities. The Act requires the following facilities to grant access to these dogs; (a) public facilities that are operated by national government or local governments, (b) public transportation (e.g., trains and buses), (c) private businesses and commercial facilities such as restaurants, hospitals and hotels that are open to the general public. Nonetheless, assistance dogs were not commonly accepted in these facilities one year after the Act had come into effect (Koda and Matsunaka, 2008; Matsunaka and Koda, 2008a)

The degree of knowledge regarding the Act among adults in general was surveyed one year after. The results revealed that 55.3% of the

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respondents did not know its name or details. Moreover, very few people (6.1%) knew about its contents (Matsunaka and Koda, 2008b).

In 2007, an amendment to the Act was enacted. According to this amendment, companies with more than 56 workers were required to accept assistance dogs at their workplaces. However, from the beginning, no punishments were mandated for violating the Act. In order to examine the actual acceptance of assistance dogs at workplaces after the 2007 amendment to the Act, Matsunaka and Koda (2013) surveyed private businesses across 23 industries. The results indicated that the Act was not well known among these private businesses that have a duty to accept assistance dogs. Moreover, only half of the companies surveyed had some knowledge about the Act; 13.1% of the companies knew the details of the Act, whereas 40.1% of them knew only the name of the Act. Few companies actually accepted assistance dogs at their workplace, and nearly 80% of the companies indicated that they have no intention of accepting assistance dogs in the future. In a 2004 survey conducted one year after the Act was enacted, Matsunaka and Koda (2008b) reported that people with more knowledge about the details of the Act and with more knowledge about how to react to assistance dogs showed more acceptance, in that they agreed with assistance dogs being in their facility and were not concerned when people needing such dogs used the facility. But Hearing dogs and service dogs, in particular, are considered to be less familiar to people than guide dogs because fewer of them are in service as we can see from the following numbers. In 2004 there were 948 guide dogs, 8 hearing dogs, and 19 service dogs, and the numbers in 2011 were 1067, 31, and 57, respectively (Ministry of Health, Labour and Welfare, 2004, 2011).

Although most apartments in Japan ban pets, recently apartments that allow pets have been increasing, partly due to the popularity of pets. This change has caused many problems to occur between people who have pets and those who do not, with manners related to pet keeping being an

important cause of problems between apartment residents (Ministry of Land, Infrastructure, Transport and Tourism, 2009). Therefore, merely revising the law seems inadequate for solving this problem. Improved awareness of rights and duties related to the ownership of animals is needed in Japan. A case in point is the tax levied on pet owners in Germany and the French Law of 10 July 1970 (Loi n°70–598 du 9 juillet 1970), which declared housing contracts forbidding pets void on the condition that pets do not disturb others.

The acceptance of assistance dogs in housing facilities remains only advisory in that they are advised to make an effort to accept these dogs. Thus, assistance dog users still face obstacles to their daily life. According to the survey conducted right after the enactment of the Act, few housing companies knew about the Act, and a limited number of users were accepted as residents. In addition, housing companies need information regarding how to explain assistance dogs and their users to other residents (Koda and Matsunaka, 2013). Gaining public understandings about the need for mandatory acceptance of assistance dogs, not only in workplaces, but also in businesses and housing facilities, as well as developing attitudes about sharing space with assistance dogs in various places would encourage assistance dog users to participate more actively in social activities.

2. Purpose

The purpose of the present study was to identify the publicity that is currently given to the Act, and the relationship between knowledge about the Act and attitudes about accepting assistance dogs in the general adult population of Japan. Positive attitudes about being near assistance dogs and agreement with mandatory acceptance of such dogs in three places where assistance dogs are encountered; in general public facilities, in housing, and workplaces, were surveyed as an index of accepting assistance dogs. In this study, we compared data collected in 2004 and in November 2011. Employment rate for

persons with disabilities in Japan is 20 to 30% lower than the employment rate for the general population (Cabinet Office, 2013), indicative of the inadequate social participation of people with disabilities. Although assistance dogs would contribute to higher social participation, acceptance of assistance dogs is not sufficient in Japan. Therefore, this study is expected to provide valuable information for solving this problem.

We hypothesized (1) that current publicity given to the Act and the level of knowledge about assistance dogs has not improved significantly since the survey conducted in 2004; and (2) Knowledge about the Act and knowledge about assistance dogs would be associated with attitudes regarding assistance dogs.

II. Methods

1. Participants and procedure

People residing in Japan ($N=3000$; 1500 men and 1500 women; age range 19–69 years) participated in this study. Participants included 300 men and 300 women in each 10-year age bracket between 20–60 years. The participants were recruited by an Internet research company through e-mails sent to 10524 people that were registered with the company. The emails asked about their age and the prefecture they resided in. As a result, 3152 people volunteered to participate (a response rate of 29.9%). The company randomly chose 3000 people that matched our recruitment criteria. The people had registered to participate in questionnaire surveys for a variety of purposes, including market research and product development. Therefore, it is unlikely that there was any inherent bias relating to this topic in this sample. The research company distributed the survey and collected the responses. All the participants received a brief introduction to the study and its aim. Then they anonymously responded to the survey. The researchers had no access to personal information about the participants. The participants were informed that their responses would only be used for statistical analyses and that individual responses would not be

made public. The researcher obtained the responses of those participants that accepted these conditions. The data were collected in November 2011.

2. Questionnaire design

Three types of perceived level of knowledge were surveyed in this study. Knowledge about the Act was measured using a 3-point scale ranging between 1 (*I don't know the Act, or its details*), 2 (*I only know the name of the Act*), and 3 (*I know the Act and its details*). Knowledge about how to react to assistance dogs was measured using a 4-point scale ranging from 1 (*I don't know about it at all*) to 4 (*I know it very well*). Knowledge about the role of guide dogs, hearing dogs, and service dogs was measured using the same 4-point scale.

The method of gaining information about the Act was measured by using multiple-choice questions: (1) information from television or newspapers, (2) learned at school, (3) training programs at the workplace, (4) educational activities, (5) lectures and meetings, (6) educational materials, (7) others, and (8) I don't remember. (Multiple answers were allowed.)

Participants were asked to describe how they felt about the presence of assistance dogs when using each of the 26 facilities described below on a 5-point scale ranging between 1 (*I do not want to use these facilities*) to 5 (*I don't mind using them at all*). Of these 26 facilities, all but housing have mandatory acceptance of assistance dogs, although housing has a duty to attempt to accommodate assistance dogs if at all possible.

The 25 commercial facilities were hotels, traditional Japanese style hotels, hot springs and health spas, medical facilities (hospitals, clinics, dentists), pharmacies, restaurants (fine restaurants, fast food places, cafeterias), amusement parks, camping grounds, zoos, aquariums, sports facilities (e.g., public gyms owned by local government, work-out gyms, swimming pools), sporting events, pachinko parlors (Japanese gambling facility), theaters and movie theaters, concert halls, museums (including art museums,

libraries), financial institutions, retail stores (department stores, supermarkets, convenience stores, and discount stores), barbers and hair salons, airplanes, trains, buses, ships, taxis, and educational institutions. Each response related to the 26 facilities was made on the 5-point scales and was coded between 0 and 4 points. The total score from these responses was considered the assistance dog acceptance score (here after referred to as acceptance score), which could range from 0 to 104 points, such that higher scores represented more positive feelings about sharing space with assistance dogs. Three responses about the roles of guide dogs, hearing dogs, and service dogs were added to obtain a score on the role of assistance dogs (role score). In addition, a questionnaire using a 5-point scale ranging between 1 (*disagree*) to 5 (*agree*) was administered to assess the agreement with the mandatory acceptance of assistance dogs from three different perspectives (1) as users of facilities, (2) as employees of facilities, and (3) as neighbors of housing facilities. The total scores from these perspectives for each participant were calculated to give the agreement with the mandatory acceptance of assistance dog score (agreeableness score). The higher the score, the more the participants accepted assistance dogs in society and the more they agreed with the mandatory acceptance of assistance dogs.

The changes in the level of knowledge about the Act and knowledge about how to react to assistance dogs were compared between 2004 (data from Matsunaka and Koda (2008b)) and 2011 using a chi-square test. Another chi-square test analyzed the relationships between gender and role knowledge for all three types of assistance dogs. Additionally, *t* tests were conducted in order to examine gender differences in the acceptance and agreeableness scores. Moreover, the relationship between the publicity for the Act and gender was investigated using a chi-square test. Finally, hypothetical models explaining the relationship between each variable were analyzed using structural equation modeling.

III. Results

1. Publicity about the Act and knowledge on how to react to assistance dogs

The level of knowledge about the Act is shown in Figure 1 in comparison to the responses obtained in the 2004 survey. The 2011 survey showed that more than half of the participants (64.1%) responded, "I do not know the name of the Act," and 29.0% of the participants knew "only the name of the Act." Moreover, only 6.9% of the participants knew "the details of the Act." A chi-square test was conducted in order to investigate the relationship between the knowledge about the Act and the survey year. The result revealed a significant relationship ($\chi^2(2) = 27.18, p < .0001$). A residual analysis showed that in 2004, more participants "knew only the name of the Act." However, in 2011, the number

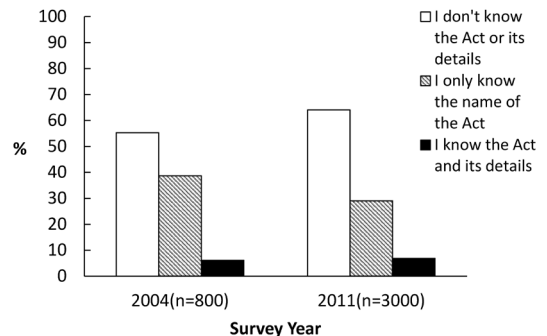


Figure 1 The Degree of Public Knowledge of the Act by Year

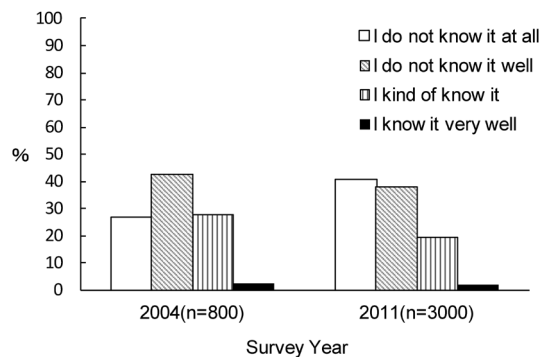


Figure 2 The Knowledge of How to React to Assistance Dogs

of the people who “do not know the name of the Act” increased ($p < .01$). A similar significant change was also seen in knowledge about how to react to assistance dogs as shown in Figure 2. In the 2011 survey, participants who answered that they “know it very well” or “kind of know it” were only 21.2%, and approximately 80% of the participants stated that they did not know how to react to assistance dogs. A chi-square test was performed in order to investigate the relationship between the level of knowledge about how to react to assistance dogs and the survey year, which indicated a significant relationship ($\chi^2(3) = 57.31, p < .0001$). Residual analysis revealed that in 2004, there were more responses stating, “I do not know it well” ($p < .05$) and “I kind of know it” ($p < .01$), however, in 2011, significantly more participants responded “I do not know it at all” ($p < .01$).

2. Information about assistance dogs

Figure 3 shows gender differences in the level of role knowledge of each type of assistance dog. Out of the possible responses to role knowledge questions, “I know it very well” and “I kind of know it” combined came to 78.0% for guide dogs, 41.0% for hearing dogs, and 43.1% for service dogs. A chi-square test revealed significant relationships between the degree of role knowledge and gender for all three types of assistance dogs (guide dogs: $\chi^2(3) = 48.18, p < .0001$; hear-

ing dogs: $\chi^2(3) = 67.67, p < .0001$; service dogs: $\chi^2(3) = 72.95, p < .0001$). Residual analyses showed that for all types of assistance dogs, more women responded, “I know it very well,” and more men responded, “I do not know it at all” or “I do not know it well” ($p < .01$ for all types).

The participants that indicated they “only know the name of the Act” or “know the contents of the Act” were asked to indicate how they came to know about the Act. More than 30% of them answered their knowledge was from “televisions and newspapers” and few participants made other choices, such as schools (4.5%), workshops at work (3.3%), campaigns (5.6%), posters and pamphlets (10.6%).

3. Knowledge and acceptance of assistance dogs

In order to examine the relationship between the role knowledge, feelings on sharing space, and agreeableness, average and standard deviations of the role score, the acceptance score, and the agreeableness score were calculated for all the participants and for each gender (Table 1). Both the acceptance score and agreeableness score showed gender differences with women having significantly higher acceptance and agreeableness scores than men (acceptance score: $t(2998) = 7.02, p < .001$; agreeableness: $t(2998) = 7.90, p < .001$). Moreover, Spearman’s correla-

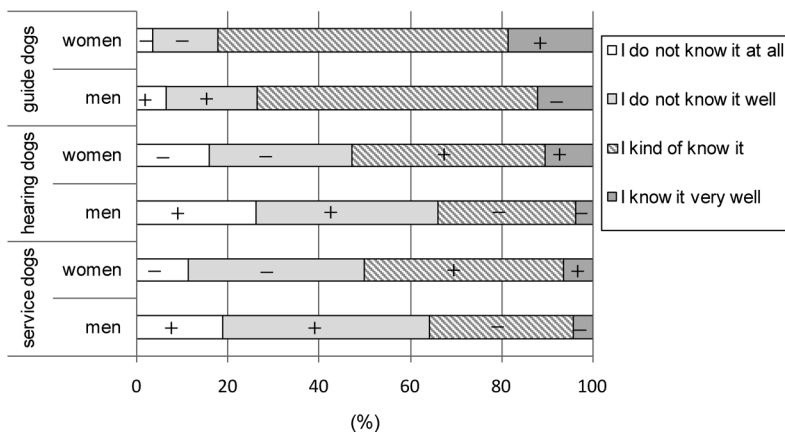


Figure 3 The Knowledge about the Roles of Assistance Dogs by Gender

Table 1 Descriptive Statistics and Spearman's Correlation of Each Variable

	<i>M</i>	<i>SD</i>	2	3
Total (<i>N</i> = 3000)				
1. Role score	7.49	2.04	.36**	.39**
2. Acceptance score	74.27	18.97	—	.70**
3. Agreeableness score	12.70	2.52		—
Men (<i>N</i> = 1500)				
1. Role score	7.15	2.03	.31**	.34**
2. Acceptance score	71.86	20.10	—	.69**
3. Agreeableness score	12.34	2.60		—
Women (<i>N</i> = 1500)				
1. Role score	7.82	1.99	.38**	.40**
2. Acceptance score	76.68	17.44	—	.68**
3. Agreeableness score	13.06	2.37		—

** $p < .01$

Table 2 The Relationship between Public Knowledge of the Act, Acceptance Score, and Agreeableness

	Public knowledge of the Act					
	Do not know at all		Only know the name		Know the details	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Men	1014	67.6	395	26.3	91	6.1
Women	909	60.6	476	31.7	115	7.6
Acceptance score	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Men	70.7	20.5	74.1	18.6	74.3	21.4
Women	74.8	18.7	78.4	15.5	84.6	10.9
Agreeableness score	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Men	12.1	2.6	12.7	2.5	13.2	2.5
Women	12.8	2.5	13.4	2.2	14.2	1.5

tions were calculated for the relationships among the three scores, which indicated that there were positive correlations between all variables in total and by gender (Table 1).

Before investigating the relationship between the level of the knowledge about the Act and agreeableness and acceptance scores, the relationship between the level of the knowledge about the Act and gender were investigated using a chi-square test (Table 2). The result showed that there was a gender difference in the level of the knowledge about the Act ($\chi^2(2) = 16.06$, $p < .001$); more women "only know the name of the Act" than men ($p < .01$). Therefore, the aver-

age acceptance and agreeableness scores for each level of knowledge about the Act by gender were calculated (Table 2).

4. Model assessment

Based on the results, a hypothetical model was proposed in which knowledge relating to assistance dogs affected attitudes about accepting assistance dogs. This knowledge consists of knowledge about the Act, knowledge about how to react to assistance dogs, and role knowledge. These attitudes are represented by acceptance and agreeableness scores. There were gender differences in all three types of knowledge related

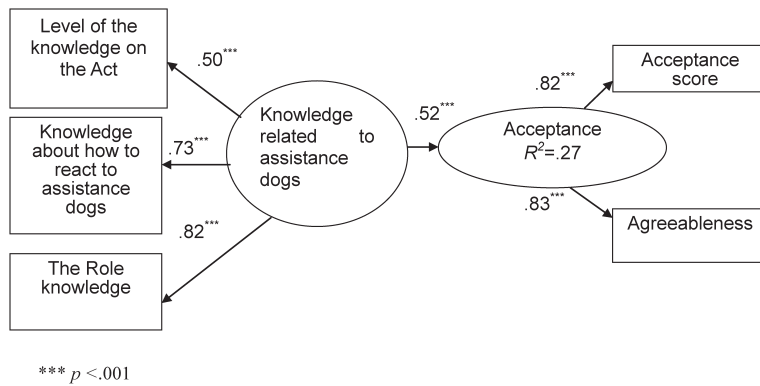


Figure 4 The Relationship between the Knowledge Related to the Assistance Dogs and the Acceptance

to assistance dogs; therefore, multiple group structural equation modeling taking the gender group into consideration was conducted. However, the resulting model did not fit the proposed model. Thus, the analysis was performed including women and men. The goodness of fit indices were, $GFI = .991$, $AGFI = .965$, $CFI = .985$, $RMSEA = .075$ indicative of a good fit (Figure 4). A path from assistance dog related knowledge to an accepting attitude toward assistance dogs was significant ($\beta = .52, p < .001$).

IV. Discussion

The present study found that the level of knowledge about the Act in Japan generally decreased between the 2004 survey and 2011. It suggests that previous campaigns and workshops for publicizing assistance dogs have been inadequate and ineffective. Companies and institutions that allow access to assistance dogs showed the same trend (Matsunaka and Koda, 2013), the level of knowledge about the Act decreased from 25.7% (in the 2004 survey) to 15.0% after 6 years. The ratio of companies and institutions that only knew the name of the Act had not changed and the response, "I do not know the name or the details of the Act," had increased. Examining the combined knowledge of users of facilities where assistance dogs share space and owners of such facilities suggested that the level of knowledge about the Act in the society in gen-

eral was declining.

Moreover, more women knew about the Act and the role of assistance dogs than men. This same gender difference in the level of knowledge about the Act was also observed in the 2004 survey (Matsunaka and Koda 2008b). The general decline in knowledge about assistance dogs, and gender differences in such knowledge has been twice observed after the enforcement of the Act. These results suggest that methods of increasing awareness in men in particular about the Act should be implemented. Women showed more positive feelings about sharing space with assistance dogs than men and tended to be more agreeable about accepting assistance dogs. This could be because women are more interested in human-animal bonds than men (Williams, 1999). Merely having knowledge about the Act might not be sufficient for men to comply with it. Some studies have shown gender differences in motives for complying with the law (Yagil, 1998; Rosenbloom, 2006). Possibly, men need to evaluate the law more deeply before complying than women (Yagil, 1998). Variables such as feelings of the importance or value of the Act may explain the acceptance of assistance dogs. From the beginning, women have been shown to be more positive about keeping pets than men (Cabinet Office, 2010). There might be a similar gender difference regarding assistance dogs in Japan. In the present study, we hypothesized that the level of the knowledge about assistance dogs

and that about the Act could explain attitudes about acceptance. Thus this hypothetical model was constructed in order to investigate the effects of each factor by gender. Contrary to expectations, though, the model was not effective, suggesting no gender differences in the causal relationship between attitude about acceptance and other factors included in this model. The present study indicated the level of knowledge that respondents had about the Act was low among both men and women, and that attitudes about acceptance were related to the knowledge about assistance dogs. These findings suggest that campaigns and workshops about assistance dogs are much needed to increase the awareness in men in particular and in the society in general.

In this study, respondents were not asked about the content of the Act. People who think they know the content of the Act might, in fact, misunderstand the content and problems may arise between assistance dog users and others because of such misunderstandings. This research was limited in that such relationships were not clarified. It is suggested that future studies should clarify the content of information about assistance dogs. Moreover, more appropriate methods of familiarizing the general with assistance dog would be found, if this more detailed research were carried out.

Whereas stickers have been placed at the entrance of commercial facilities since the enforcement of the Act, it is pointless to place these stickers if the meaning of symbols on the sticker is not widely known. In addition, pamphlets and posters have been distributed to promote awareness, but the present study showed that they have not been effective methods for increasing the acceptance of assistance dogs. Among the responses obtained in the present study, pamphlets and posters ranked second as a method of obtaining knowledge about assistance dogs. Moreover, the very small proportion of the responses indicated that the effects of pamphlets and posters have been limited. Campaigns using the media, such as television have been seasonal and time limited; however, the survey indicated

that information from media was the most common way of knowing about assistance dogs, which is suggestive of its effectiveness.

While a limited number of local governments and the Ministry of Health, Labour, and Welfare provide protocols for accepting assistance dogs on their webpages, this requires companies and facilities to actively access these websites. It might be needed to include mandatory gathering of information related to assistance dogs, to develop strategies to react to various situations related to assistance dogs, and to prepare access to such dogs when making it a duty to accept assistance dogs.

A study comparing knowledge and attitudes of young people in Japan and the UK towards assistance dogs has indicated certain difference between the two countries (Miura, *et al.*, 2002). A similar percentage of the British and the Japanese students reported that they were unhappy about allowing the dogs access to places where food is sold. However, most British students agreed with idea of using dogs as assistance dogs, though only 41% of the Japanese students did so. One of the reasons could be that more British students understood the benefit of assistance dogs to their owners than did Japanese students, as shown by the reasons given by them to explain their responses. It is suggested that promoting understanding toward the benefits of assistance dogs to their owners could increase their acceptance in Japan. The present situation is far from this.

Assistance dogs are trained to control their behavior for the convenience of the users and surrounding people. The current situation in which merely the name of the Act is known suggests that advocating the Act is insufficient. The expansion of public understandings and realization about the users' duties and how these dogs are trained could be factors that promote the acceptance of assistance dogs in our society. Educational activities using television and the Internet could be effective for people that are not interested in assistance dogs. Moreover, it is suggested that future studies be conducted to assess

the effectiveness of publicity campaigns for promoting knowledge about assistance dogs.

V. Conclusion

The level of knowledge about the Act in Japan generally is decreasing, and the method of dissemination is hoped to be improved. The knowledge about assistance dogs' role and about how to react to them as well as about the Act itself would ameliorate the lack of acceptance of assistance dogs. Publicizing through TV, newspaper, and internet would be effective for increasing the knowledge, and the acceptance of assistance dog would be improved.

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References

- Cabinet Office (2010). A Opinion survey on Animal Care, <http://www8.cao.go.jp/survey/h22/h22-doubutu/> (in Japanese) (as of 1/8/2014)
- Cabinet Office (2013). Annual Report on Government Measures for Persons with Disabilities (Summary), <http://www8.cao.go.jp/shougai/english/annualreport/2013/index-pdf.html> (in Japanese) (as of 1/8/2015)
- Koda N, Matsunaka K (2008). A survey of the accessibility of assistance dogs for physically disabled persons to public facilities. *Japanese Journal of Human Animal Relations* 20: 48–55. (in Japanese)
- Koda N, Matsunaka K (2013). Housing companies' level of familiarity with service dog legislation and their acceptance of these dogs in their rental housing. *Journal of Service Dog Research* 7: 21–25. (in Japanese)
- Matsunaka K, Koda N (2008a). Acceptance of dog guides and daily stress levels of dog guide users and nonusers. *Journal of Visual Impairment & Blindness* 102: 295–304.
- Matsunaka K, Koda N (2008b). The level of public familiarity with the law concerning assistance dogs and acceptance of assistance dogs—The effect of knowledge about assistance dogs. *Japanese Journal of Social Welfare* 49: 53–59. (in Japanese)
- Matsunaka K, Koda N (2013). Japanese business organizations' level of familiarity with assistance dog legislation and their acceptance of these dogs in the workplace. *Anthrozoös* 26: 557–598.
- Ministry of Health, Labour, and Welfare (2004). Information about Assistance Dogs (in Japanese), <http://www.mhlw.go.jp/topics/bukyoku/syakai/hojyoken/html/b04.html> (as of 1/9/2004)
- Ministry of Health, Labour, and Welfare (2011). Information about Assistance Dogs (in Japanese), <http://www.mhlw.go.jp/topics/bukyoku/syakai/hojyoken/html/b04.html> (as of 1/9/2011)
- Ministry of Land, Infrastructure, Transport and Tourism (2009) Apartment total research of fiscal 2008, <http://www.mlit.go.jp/common/000037707.pdf> (in Japanese) (as of 1/8/2015)
- Miura A, Bradshaw JW, Tanida H (2002) Attitudes towards assistance dogs in Japan and the UK: a comparison of college students studying animal care. *Anthrozoös* 15: 227–242.
- Rosenbloom T (2006). Sensation seeking and pedestrian crossing compliance. *Social Behavior and Personality* 34: 113–122.
- Williams S (1999) Perceptions of fourth-year veterinary students about the human-animal bond in veterinary practice and in veterinary college curricula. *Journal of the American Veterinary Medical Association* 215: 1428–1432.
- Yagil D (1998). Gender and age-related differences in attitudes toward traffic laws and traffic violations. *Transportation Research Part F: Traffic Psychology and Behaviour* 1: 123–135.