## Supplementary material

Table S1. Canine-assisted intervention: examples of individual objectives.

| Domain | Description |
| :---: | :---: |
| Communication | To produce clear and understandable speech |
|  | To use sentences with 4 or more words to exchange information (e.g. location of objects) |
|  | To be able to ask a meaningful question |
|  | To speak to the dog |
|  | To express a preference to others |
|  | To increase the number of requests to others |
|  | To ask the dog to do a command |
| Cognitive functioning | To remember and use the dog's name |
|  | To recognise the rest and feeding needs of the dog |
|  | To sequence the steps of the task with the dog appropriately |
|  | To remember and use the name of the therapist |
|  | To engage in a play activity with the dog and the therapist |
|  | To reduce the need for personal help to organise the workspace |
|  | To start the task at the appropriate time without relying on prompts |
| Psychomotor skills and use of the body | To make physical contact with the dog |
|  | To make positive physical contact with others |
|  | To demonstrate physical affection to an adult by hugging |
|  | To increase visual contact with the therapist |
|  | To demonstrate positive affect through smiles |
| Social interaction | To be able to initiate an interaction with another person |
|  | To follow social norms during a social interaction |
|  | To reduce the frequency of disruptive behaviours during a play activity |
|  | To increase displays of appropriate affection towards others |
|  | To share materials and tools with others |
|  | To improve the ability to take appropriate turns with the therapist and tutors |

Table S2. Criteria for the selection and allocation of the therapy dogs in the study.

| Domain | Description |
| :---: | :---: |
| Age | Age over 1.5 years |
| Health | Verification of compliance with protocols and standards in regard to vaccination, health status and hygiene |
|  | Optimal health status, certified by a veterinarian (full veterinary check-ups of the dogs) |
| Temperament and behaviour | Assessment for temperament and behaviour to verify basic skills as a therapy dog: |
|  | - Calm temperament |
|  | - Patient |
|  | - Even-tempered |
|  | - Docile |
|  | - Respectful |
|  | - Obedient behaviour: basic obedience skills |
|  | - Drawn to people: social and friendly behaviour |
|  | - Predictable reactions |
|  | - Easy management of insecurities |
|  | - Ability to cope with stress |
|  | - Comfortable in a range of settings: easy adaptation to various environments |
|  | Constant supervision (observation) during the study |
|  | Reassessments of the dog every six months |
| Training | Training by a professional from a specialised external center (Montegatto) |
|  | - Minimum duration of 6 months |
|  | - Obedience commands |
|  | - Training to assist in therapy: specific training as a therapy dog |
|  | - Specialised training in working with children with disabilities |
|  | One year of experience working with children |

Table S3. Profiles of the therapy dogs included in the study.

| Dog | Sex | Age (years) ${ }^{\text {a }}$ | Size | Breed |
| :--- | :---: | :---: | :---: | :---: |
| Lusco | M | 2 | Large size | Galician Shepherd Dog |
| Nana | F | 2 | Medium size | Golden Retriever |
| Moom | F | 2 | Large size | Labrador Retriever |
| Marrón | M | 2 | Large size | Labrador Retriever |
| Kika | F | 3 | Large size | Labrador Retriever |
| Gym | M | 3 | Large size | Labrador Retriever |
| Chuspi | M | 3 | Small size | Chihuahua |
| Yogui | M | 4 | Large size | Labrador Retriever |
| Fusco | 8 | Large size | Galician Shepherd Dog |  |
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[^0]Table S4. Strategies to promote the welfare of the therapy dogs during the study.

| Domain | Description |
| :---: | :---: |
| Sessions | 1:1 ratio of participants to animals |
|  | Each dog worked with the same therapist and handler |
|  | Each dog works with a maximum of four participants per day |
| Safety of the animal | Safe and comfortable dog transportation |
|  | Constant supervision during the sessions: the professional handler monitors and interprets the behaviour and emotions of the dogs |
|  | End of the intervention sessions in situations involving risks to the dog's safety. For example: |
|  | - Aggressive behaviours of the child towards the dog |
|  | - Accidental maltreatment of the dogs by the children |
| Rest | During the sessions: a break every 45 minutes |
|  | This break is a minimum of ten minutes |
|  | Quiet time and space between sessions |
| Hygiene | The handler is responsible for the correct hygiene and grooming of the dog |
|  | Animal bath within 24 h of the session |
|  | Brushing the dog's coat before the session |
|  | Dog nail trimming |
|  | Cleaning of the therapy equipment at least weekly or as needed |
| Health | Full veterinary check-ups were conducted periodically (every six months or as needed) |
|  | Regular treatments for fleas, ticks and parasites |
|  | Complete and updated vaccination |


[^0]:    ${ }^{a}$ First session in the research.

