Touching the social robot PARO reduces pain perception and salivary oxytocin levels

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Supplementary Materials

Questionnaire 1 – Getting to know PARO

Please indicate PARO’s reaction to the following:

When I pet its back several times

When I pet its face several times

When I pet its front flippers several times

When I pet its back flippers several times

When I call it by its name several times

When I call it by its name when it cannot see me

When I touch its whiskers (gently – no pulling)

Please mark with a circle whether you observed PARO perform any of the following:

Lift its gaze upwards  ⬝ Yes / No
Place its head in your lap  ⬝ Yes / No
Move its front flippers  ⬝ Yes / No
Move its back flippers  ⬝ Yes / No
Open and close its eyes  ⬝ Yes / No
Make sounds  ⬝ Yes / No

Questionnaire S1. Getting to know PARO. This questionnaire was given to half of the participants in the PARO group – those who had a 10-min interaction with it. They were asked to fill it out during the 10-min interaction.
Questionnaire 2

**Questionnaire S2. Perceptions of the interaction with PARO.** Participants were asked to mark on a 10-cm VAS line (with no numbers on it) how they perceived PARO’s and their own feelings. The ends of the VAS line were marked as “not at all” (evaluated offline as = 0) and “the most” (evaluated offline as = 10).

| How does PARO feel? | Not at all | The highest degree |
|---------------------|------------|--------------------|
| Happy               |            |                    |
| Satisfied           |            |                    |
| Sad                 |            |                    |
| Angry               |            |                    |
| Tired               |            |                    |
| Wants to be petted  |            |                    |
| Wants to communicate|            |                    |

**How did you feel during the interaction?**

| Did you feel good with PARO? |            |
|------------------------------|------------|
| Is it pleasant to touch PARO?|            |
| Did you feel you could communicate with PARO? |            |
| Did PARO help to reduce pain? |            |
| Would you like to meet PARO again? |            |