This paper describes the effect of an Animal Assisted Activity on the well-being of End Stage Renal Patients undergoing dialysis using serum levels of Oxytocin and Serotonin as the measure. The hypothesis is not clearly stated - does an increase in Oxytocin and Serotonin indicate an increase in patient well-being. No data such as patient self-reports are provided to support the hypothesis. At all levels, detail of the what was done and why it was done is lacking. Confounds such as patient pet ownership, education etc are not considered along with if it is the dog or the dog and activity that is important. The conclusions are overstated given the lack of information.

Simple summary

Line 23: Clarity- "..the establishment of the game size..' I am not sure what is meant by game size.

Abstract

1 Introduction:
Line 48: Style- remove the “..in fact..” as it does not add to the reading.

Line 53: Style- change ..and anxiety, that have a significant.... to “...and anxiety that have a significant negative influence on the self management of their disease that is leads to worsening of their condition ..”

Line 56: Style- change “with the dog” to “with a dog”

Line 60: Style- the second and third paragraphs as not linked- I don’t know why you are talking about Serotonin and Oxytocin. To make it clearer, consider starting the paragraph with something like: To assess the effect of the AAA, ESRD patient serum serotonin and oxytocin levels were measured. Serotonin (5-HT0 and Oxytocin (OXT) are important modulators....”

Line 62: Discuss these papers references 8-10. Give some details about what others have found.

Line 62-64: Clarity- the sentence starting: “Furthermore.... ASD (Autism).” Is very long and not clearly written. Suggest revising it.

2 Materials and Methods
2.1 Patients

Line 69: Clarity- how did you decide they had comparable stage of renal damage. Bloods, medical records, measures of functioning renal mass? We need to know to be able to decide if your subjects were suitable for the study. Did you have any other criteria- what about exclusions? Did they have to only have ESRD or could there be other health issues? Did they have to be undergoing a minimal amount of dialysis? Did you assess them on other factors that may affect their response to AAA- such as education, family background, history of pet owning? If you don’t measure these things how do you know if the results are due to the dog being present or are due to another factor plus the dog? As this is a preliminary study, I understand some things will be not included by necessity but I would encourage them to be explored in further studies. They should be discussed in the discussion too!

2.2 AAA

Line 73-78: Clarity- more detail of the play and interview activities is needed. Did the dog visit with each participant? Is so, for how long? What were the interview activities? What sort of play?

As this is the essential part of your study- you need to explain in detail what was done. This is the bit that anyone wanting to replicate the study needs to know. Also- how do you know it is the AAA and not just the dog being present that helped. Did you have a condition of the dog just passively in the room and not interacting?

2.3 Equipe

Line 79: Not sure what this heading “Equipe” means- may be unique to the journal or a Language difference. This section seems to be describing the team of people and the dog so could be listed as: the AAA team or just included in the AAA section.

Line 80-86: Clarity- this needs more detail. What sort of dog was it? Age, training? Why was it put through the Monash Canine Personality Questionnaire? What sort of tasks was this dog trained in and how was its health before starting the process? How was its welfare protected throughout the study? As the welfare of the animals used in AAA is not often considered, this is very important. The dog gets no choice in taking part so readers need to know how it was handled to protect its well-being.

Line 81-83: Reference 12, References 13-15 and references 16-18 need to be discussed. What did you take from these references to assess the dog in the study? It may be appropriate to move some of this information into the introduction to help explain AAA better.

2.4 Blood sampling

Line 88-92: Clarity- Was the blood taken from the ports used for haemodialysis or as separate draws?

2.5 Blood sample analysis

Line 94-101: Style - I would combine this section with that above (2.4) as one section.
Clarity- Were the blood tubes centrifuged immediately after collection. What sort of tubes- Plain, tubes with clotting factors added to speed clot formation?

Style- change “...until processed for determination.” to something like “...until processed as a batch for serotonin and oxytocin levels.”

Clarity- more detail is needed for the ELISA test. For example “The serum was incubated with the antigen for xx minutes at xx degrees......” This level of detail is needed to allow readers to evaluate the study data collection processes.

Clarity- “...comparing their absorbance...” What was absorbing and what was absorbed. This sentence is not clear. Do you mean that the sample absorbed light at the 405nm wavelength allowing a difference in colour to be determined?

2.6 Statistical Analysis

Good section, well reported.

3. Results

3.1 Choice of dog.

this whole section needs to go under the materials and method section. You didn’t have a choice of dogs- or did you? The paper reads as if there was 1 dog. What do you mean about a good score on extraversion etc? As yet the MCPQ (now MCPQ-R) has not been normed to give clear indication of the associations of behaviour with different scores. If you have used information from other studies, this needs to be indicated.

what education did the owner and dog receive. Was it part of a program (a therapy dog program) or was it some other process? How do you define a harmonious and balanced relationship? This is a scientific paper and the writing, language and detail of what you did and how you assessed needs to be given. I have no idea about this dog or what it was required to do from what has been written. If I want to replicate this study or build on your findings with a similar study, I don’t know what you did or how you did it. As this is the basic tenet of research and publishing, the lack of detail is a major flaw in this paper.

How did you determine no behavioural and infectious problems occurred? What tests or measures did you undertake to determine this? This detail is needed.

3.2 Behaviour of the dog

this section is of no value to the paper. It is not clear what you are trying to say or how you assessed motivation, joy and adaptation.

3.3 Statistical Analysis

“Per each phase...” should be “For each phase...”

There should be p-values stated here.
Line 138: Clarity- last sentence should read “In figure 3 the common biphasic pattern of serotonin and oxytocin serum levels are shown.”

3.4 Figures

Figure 1

Line 141: T1 and T2 are referred to but in your description of the process of the study and the data analysis, you do not refer to T2- to what part of the research does it refer? Check for this type of inconsistency.

Figure 2

Line 145: You need to label the two parts of the figure with (a) and (b). Also T2 has been referred to again. Do you mean T0 and T1?

Figure 3

Line 152: Clarity- is there meant to be a (b) figure for Figure 3? If not there is an error in the caption for figure 3.

4. Discussion

Comments: The discussion lacks depth and detail in its assessment of the results. What did you find-that the serotonin and oxytocin varied together. Why might this be? You need the detail of the AAA and the human patients to know if the AAA was the reason for the variation of the serotonin and oxytocin. How does the serotonin nd oxytocin variance affect the patients mood. This is not clear. What is happening over the first 4 weeks when the serotonin and oxytocin drop- are the patients depressed or happy? And then the remaining 7 weeks what happens to them?

Line 159-160: This sentence does not make sense. You did not describe the behaviour of the patients. This would be good to know because

Line 163: Clarity- check and use either serotonin or 5-HT throughout the paper. I would suggest serotonin is better as it is clearer (same goes for OXT or Oxytocin).

Line 165: Clarity- there is unnecessary repetition of the “OXT receptors are expressed on serotonergic cells”. This needs to be edited. Assume the reader is not completely familiar with the effect of oxytocin on the serotonergic cells- inhibitory I assume from your writing but it is not clear.

Line 168: When referring to other work by the same group of authors/research group, I would recommend mentioning that fact.

5 Conclusions:

Line 172-173: This sentence doesn’t make sense. The relational competence of the dog and the relationship with the vets who was also the owner were not defined and the importance of this to the outcomes of the study have not been explained in this paper.
Line 176: As you do not include any measures of patient well being beyond a hypothesized relationship between patient well being and serotonin and oxytocin levels (with no discussion of the nature of the relationship), this statement in your conclusion is invalid. You cannot hypothesize in a conclusion- you are answering your hypothesis in the conclusion. Do your results support your hypothesis or not?

Line 177: Conclusions do not generally have references. This new paper should be in the discussion if you need to refer to it.

Line 178-180: The weak points of the study need to be considered in the Discussion along with areas for future studies.

References:

Check all references- there are errors in author lists (line 234: this paper has 3 authors but has 4 listed, 2 by their first names not surnames)