Reviewer's report

Title: Social adaptation in Chinese Williams syndrome

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Reviewer: Bonita Klein-Tasman

Reviewer's report:

In this manuscript, the “social adaptation” of 26 Chinese children with WS was examined in comparison to MA- and CA-matched participants. Participant groups were matched based on receptive one-word vocabulary. The authors found that the children with WS showed clear delays, and were similar to the MA group in most areas assessed, with somewhat stronger self-dependence and communication than the MA-matched group. The authors discuss aspects of the experience of Chinese children with WS that may differ from their North American and European counterparts, on whom most of the Williams syndrome literature is based.

In terms of the question posed, the manuscript would benefit from clearer delineation, from the outset, that the focus is on adaptive behavior, rather than social functioning — the use of the term “social adaptation” may be confusing. The methods used are appropriate given the limited measures available, but additional information about the psychometrics of the central measure are needed. As detailed below, the WS and MA participant groups are matched for mean receptive vocabulary, but it is unclear that they are matched for the range of raw scores. The authors clearly indicate limitations of the work. The manuscript would benefit from further proof-reading by a native English-speaker for readability.

Major Compulsory Revisions:

1) The measure of “social adjustment” used should be mentioned in the abstract, as this is a specific focus of the study (more so than PPVT scores).

2) The authors indicate that they are examining social adjustment, but it appears that they are examining something that also overlaps with adaptive behavior more generally; additional clarification of the constructs being examined would be beneficial. The focus of the study on adaptive behavior gets lost somewhat in the terminology used in the Introduction; a clearer indication that it is adaptive behavior rather than social functioning that is being examined would be beneficial. The prior literature is very sparsely described in the Introduction— the authors mention a couple of studies of adaptive behavior, but do not more generally review the adaptive behavior literature in Williams syndrome.

3) Additional psychometric information regarding the Infants-Junior-Middle School Students’ Social-Life Abilities Scale is needed. The authors indicate that it has excellent test-retest and equivalence reliability and excellent concurrent validity; given that this is not a well-known measure and has not been used in the
Williams syndrome literature to date, some specific information to support these assertions would be beneficial. It would also be useful to report Cronbach’s alpha for the scales used in the Williams syndrome group.

4) The authors indicate that the WS and MA group are matched for PPVT raw score, which is the case statistically. However, the standard deviation in the Williams syndrome group is much larger than that of the MA-matched group, suggesting that there may be fewer individuals in the MA-matched group with weaker vocabulary. More information about the distribution of scores should be reported to be certain that the MA-matched group is indeed matched.

5) The authors appear to present some additional findings with the WISC-R in the context of the discussion; they should consider moving this information into the body of the study instead, so that the results can be discussed in the discussion section.

6) The authors discuss reasoning for using PPVT raw scores in the discussion; this reasoning might be better placed in the Materials section.

7) In the discussion, the authors indicate that performance on self-dependence was “much” better that the MA-matched group; however, the difference appears to be rather small – detectable only at p < .05. Generally, it is hard to see how the interpretations in the paragraph that begins adaptive behavior refers to… fit with the data presented in the results section.

8) The conclusion begins with the assertion that children with WS have lower adaptive behavior than would be expected for their IQ, but this is not completely consistent with the results of the study # in many areas, there were no differences from the contrast group – locomotion, work skills, socialization.

Minor Essential Revisions:
1) The statistics reported in the abstract should have degrees of freedom
2) The authors should use “intellectual disability” or “intellectually disabled” instead of mental retardation.
3) Refer to “biological parents” rather than “genetic parents”
4) For p values of .000, it should indicate p < .0001
5) In the paragraph that begins “Difficulties in motor movements… “ – The phrasing of the sentence “Although enhance…” should be adjusted. Overprotect should be “overprotection.” The word “acceded” should be changed.

Discretionary Revisions
1) The authors should consider examining relations between receptive vocabulary raw scores and adaptive behavior.
2) The authors discuss family structure; it would be important to more carefully anchor this discussion within the data presented in the results section from the beginning of the paragraph (e.g., As might be expected given Chinese law regarding family size, it was more common for families of children with WS to be larger than those in the contrast groups. Family structure plays an important…”)
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests: I have no competing interests.