Reviewer's report

Title: Lighting and Perceptual Cues: Effects on Gait Measures

Version: 1 Date: 4 July 2011

Reviewer: Michele Callisaya

Reviewer's report:

Major compulsory Revisions

1. Methods: After performing an ANOVA the authors stated they would use a two-tailed post-hoc student’s t test to further examine main effects and interactions between variables (Methods, last paragraph).

As the groups by lighting condition interactions were not statistically significant but were examined anyway perhaps this should have be classified as a priori or a planned comparison?

2. With multiple t-test comparisons the authors need to discuss how they protected against Type 1 error (Results, paragraph 4, paragraph 6, paragraph 10).

3. Fallers were defined as those who scored 45 or lower on the BBS AND those who had fallen at least two times within the past 6 months (Methods, Paragraph 2). Please justify these criteria. Did any participants meet just one of these criteria and were then classified as non-fallers?

Minor essential revisions

1. Introduction, Paragraph 1, lines 11-12 – Please reference the sentence ending in ‘…walking in dim lighting conditions’

2. Introduction, Paragraph 1, line 13 – Please reference the sentence ending in ‘...shorter in dim lighting conditions' 

3. Introduction, Paragraph 4, justify not reporting step time or stride time variability as these measure are commonly associated with risk of falls

3. Methods, Paragraph 2, line 11 – Please reference – '..scored 45 or lower on this scale (Berg Balance Scale)..' 

4. Table 1, line 1 - please add total number of fallers (n= ), non-fallers (n= )

5. All tables – add a note regarding any abbreviations

Discretionary revisions

1. Results – any interpretation of data would be better in the discussion:
   • Results, paragraph 2, last line
• Results, paragraph 4, line 13 – The sentence ‘These results suggest that perceptual cues about the horizontal ……’

• Results, paragraph 6, line 15-16

• Results, paragraph 8, lines 13-15

• Results, last paragraph, lines 13-14

2. Table 2 – consider using a more descriptive title

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

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

Declaration of competing interests:

I declare that I have no competing interests