

# [Article critique regarding cognitive effects of risperidone](https://assignbuster.com/article-critique-regarding-cognitive-effects-of-risperidone/)

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The study en d Cognitive Effects of Risperidone in Children with Autism and Irritable Behavior sought to investigate the possible effects that risperidone, a type of drug, has on the cognitive processes of children with irritable behaviors and autism. By doing the research, the authors sought to answer particular questions. The questions included the possible effects of the drugs on children suffering from autism and those exhibiting irritable behaviors. Additionally, the authors asked the nature and extent of the drug. From the systematic questions, the objective of the study was, therefore, was to explore the effects that the drugs have on the cognitive processes of the children with autism and irritable behavior patterns.
The authors test the hypothesis that risperidone has particular effects on the cognitive processes of children with autism and irritable behavior. In analyzing the variables, the authors employ ANOVA, a statistical test that enables the authors to analyze the means of several groups thus determining whether they are equal or not. ANOVA test is appropriate in this context since the authors anticipate varied effects on the various groups of the research subjects (Muth, 2006). The article employed appropriate statistical analysis techniques including the ANOVA test. The authors selected thirty-eight children and assigned them to the drugs randomly a feature that validated the research findings. Furthermore, they developed an effective placebo-controlled parallel group to control the findings. Using the ANOVA test, they tested various aspects of the cognitive processes in the children including verbal learning, sustained attention and hand-eye coordination among others (Lee, Lee & Lee, 2000).
I find the use of ANOVA test appropriate since the statistical technique provides the authors with an effective way of partitioning the research subjects depending on their reactions to the drug. Among the statistical limitations of the study included the small sample size and the adoption of the . 05 level of alpha. The authors acknowledge that if they corrected for all the respondents, none would have reached the alpha stage. The exploratory nature of the study thus influenced the findings and conclusions. Their assumptions included the effects of age, differences in IQ and the duration of the exposure to the drugs, all of which had differences effects to the research findings (Basso, 2009). Given a chance to carry out the study, I would have a large sample size, which would in turn give me an elaborate view to investigating the manifestations of the effects of the drugs.
The authors employed myriad statistical techniques to analyze their research findings including t-tests and Chi-square tests to determine the different effects of the drugs on children with mastery based on their IQ, age, gender and Irritable subscale score. They further used the general linear models package in SPSS in analyzing the results. The statistical technique enabled the authors to compare the findings in various groups thus making reliable conclusions. 37. 6% of the respondents provided valid cognitive measures. With such a statistical finding, the authors rightly concluded that risperidone given to children in varying doses of up to 3. 5mg for a duration of up to eight weeks does not cause any detrimental effects on their cognitive performance (Aman, Hollway & McDougle, 2008).
References
Aman, G. M., Hollway, J. A. & McDougle, C. J. (2008). Cognitive Effects of Risperidone inChildren with Autism and Irritable Behavior. J Child Adolesc Psychopharmacol. 18(3): 227–236.
Basso, D. (2009). Permutation tests for stochastic ordering and ANOVA: Theory andapplications with R. New York: Springer.
Lee, C. F., Lee, A. C., & Lee, J. C. (2000). Statistics for business and financial economics. Singapore: World Scientific Publ. Co.
Muth, J. E. (2006). Basic Statistics and Pharmaceutical Statistical Applications, Second Edition. New York: CRC Press.