

# Interpreting research questions using manova



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Interpreting research questions using MANOVA MANOVA, or multivariate analysis of variance, is a statistical tool for comparing means of groups in a population or a sample. This paper seeks to summarize two research articles that apply MANOVA in data analysis. The paper explores variables, level of measurements of the variables, number of analyzed variables, and a summary of research questions and findings in the articles.

The first article, ' Effects of coordinated services for drug abusing women who are victims of intimate partner violence,' explores significance of care services in controlling drug abuse among women and domestic violence towards women. The article reports multiple dependent and independent variables in the subject study. The set of independent variables consists of the types of care services as offered by the care facilities that were involved in the research. These include substance abuse care services: " assessment, referral for detoxification, intensive outpatient treatment, toxicology, 12-step groups, individual and group counseling, linkage to methadone maintenance, relapse prevention and recreation" (Bennett and O'Brien, 2007, p. 399, 400). Domestic violence factors include " 24-hour crisis, shelter, case management, psycho education, advocacy or protection orders, transportation, children's program, and individual, group, or mother child counseling" (Bennett and O'Brien, 2007, p. 400). Dependent variables consist of three factors, " women's experience of battering," " domestic violence self efficacy," and the number of days in which the participants abused drugs (Bennett and O'Brien, 2007, p. 400).

The journal uses different levels of measurement to represent the research's data. While it applies nominal level of measurement for the independent variables, ordinal level is applied for the three categories of dependent

variables. In a nominal level of measurement, numbers are assigned to items for mere identification purposes while such numbers hold preference values in ordinal level of measurement (Melnik and Overholt, 2010). The research analyzes five variables, two independent variables, and three dependent variables. Even though the article does not explicitly offer a research question, it answers the question, ‘ what are the effects of coordinated services for drug abusing women who are victims of intimate partner violence?’ The results that show reduced levels of substance abuse and higher efficiency among the women support this (Bennett and O’Brien, 2007).

The second article explores characteristics of batterers. The article also presents multiple variables in both dependent and independent categories. Independent variables are “ measures of violence and psychology” while the dependent variables are “ measures of exposure to violence in family of origin, behavior during marital interactions, attachment styles, jealousy, emotionally abusive behavior, and jealousy and additional measures of psychopathology” (Waltz, Babcock, Jacobson and Gottman, 2000, p. 660). Measurements of all the variables are all ordinal, indicating hierarchy. The research explores nine variables, two independent variables, and seven dependent variables. Even though it does not present a research question, the article seeks to validate existing literature on typology of males who physically abuse their partners. The findings ascertain existing literature with a few deviations (Waltz, et al, 2000).

Application of MANOVA in the two cases is appropriate as the two scopes involve determination of relationships among multiple dependent and independent variables. A major observation in the two articles is the fact that <https://assignbuster.com/interpreting-research-questions-using-manova/>

research results do not always entirely correspond to theoretical expectations. This identifies possible existence of confounds that influences results and should be factored when formulating research methodology and variables.

#### References

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