

The challenges in use of appropriate statistical test in analyzing data in developing countries

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The choice of appropriate statistical test is a key to generating valid conclusion about population. Major challenges encountered by researchers in Nigeria are lack of awareness in using appropriate statistical method in analyzing data, which lead to wrong interpretation of result. This study was designed to review and criticize statistical methods used in analyzing data in three different local journals published. 12 issue The journals were selected based on availability, fifty articles were chosen from peer reviewed locally produced hard copies journal in Nigeria covering major areas in Veterinary medicine from 2009 to 2011 from issues of the journals. Only cross sectional and survey studies were used and retrospective studies were excluded from the review. The statistical tests used were evaluated based on appropriateness of the test based on type of data, test variable and distribution, data organization and interpretation of test results. 27 (54%) applied wrong statistical test analysis and wrong interpretation of results and 3 (11.1%) out of the 27 did not state type of statistical test used in analyzing the data, 10 (20%) applied correct statistical test analysis but the result of the test was not well presented and the p-value was not stated, 13 (26%) used correct statistical test, well presented and interpreted. This indicates that must authors intend to arrived at p-value using computer statistical software irrespective of whether correct statistical test was applied in analyzing the variables or not. In conclusion most authors do not use appropriate statistical test in analyzing research and also the reviewers of such articles are not given adequate attention to statistical test applied in analyzing results. However, it also indicates that authors are more interested in statistical p-values derived from computer software irrespective of the type of statistical test used. Researchers should consult statistician from initial stage of the study design and also at end of the study when results are gotten to assist in using correct statistical test in analyzing results.

Biography

Lawan Mohammed Kabiru was born on May 26th 1978. He has completed his Doctor of Veterinary Medicine (DVM) in December, 2004 and MS.c in Veterinary Public Health and Preventive Medicine in April, 2010 at Ahmadu Bello University Zaria, Nigeria and is currently about to complete his Ph.D. in Veterinary Public Health and Preventive Medicine. He is working as Lecturer in Department of Veterinary Public Health and Preventive Medicine Faculty of Veterinary Medicine, Ahmadu Bello University Zaria, Nigeria. He is teaching the following courses: Biostatistics, Veterinary Epidemiology, Zoonoses and Preventive Medicine. He has published 15 papers in different reputed journals and also was reviewer for Journal of Veterinary Medicine and Animal Health.

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