A SIMULATION STUDY TO COMPARE IMPUTATION METHODS TO HANDLE GROUPED SURVIVAL DATA

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- *ABSTRACT: Grouped or discrete survival data usually occur when all the experimental units are visited at the same times which can be equidistant or not. To analyze such type of data simple imputation methods are often used by analysts. In this paper, Monte Carlo simulations are performed in order to compare the midpoint, lower and upper limits imputation methods. The Weibull regression model for discrete survival data is also considered. In the simulations, three equidistant visit times, three proportions of censored data, three sample sizes, and the Weibull distribution are used. Also, the situations without and with covariates are considered in the study. The simulation results show that the midpoint is the best imputation method among those considered giving very similar results to those of the Weibull regression model for discrete survival data. A flax data illustrates the comparison of the methods considered in the paper for the analysis of grouped survival data.*
- *KEYWORDS: Discrete time; Monte Carlo simulation; Weibull model.*

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