

Mann Whitney U Test for Likert Data

Method: Mann Whitney U Test for Likert Data

Method type: hypothesis_test

Design: Two-sided rank comparison of family-relationship responses between female and male respondents.

Variables: sex, famrel

Inference scope: H0: the two independent response distributions are equal; $P(F \text{ response} > M \text{ response}) + 0.5P(\text{tie}) = 0.5$.

Formula: $U_F = R_F - n_F(n_F + 1)/2$; rank-biserial $= 2U_F / (n_F * n_M) - 1$.

Source rows: 649

Calculated metrics:

u_statistic_female: 46516.5

p_value: 0.0421608892676292

rank_biserial: -0.0868195292408567

n_female: 383

n_male: 266

female_median: 4

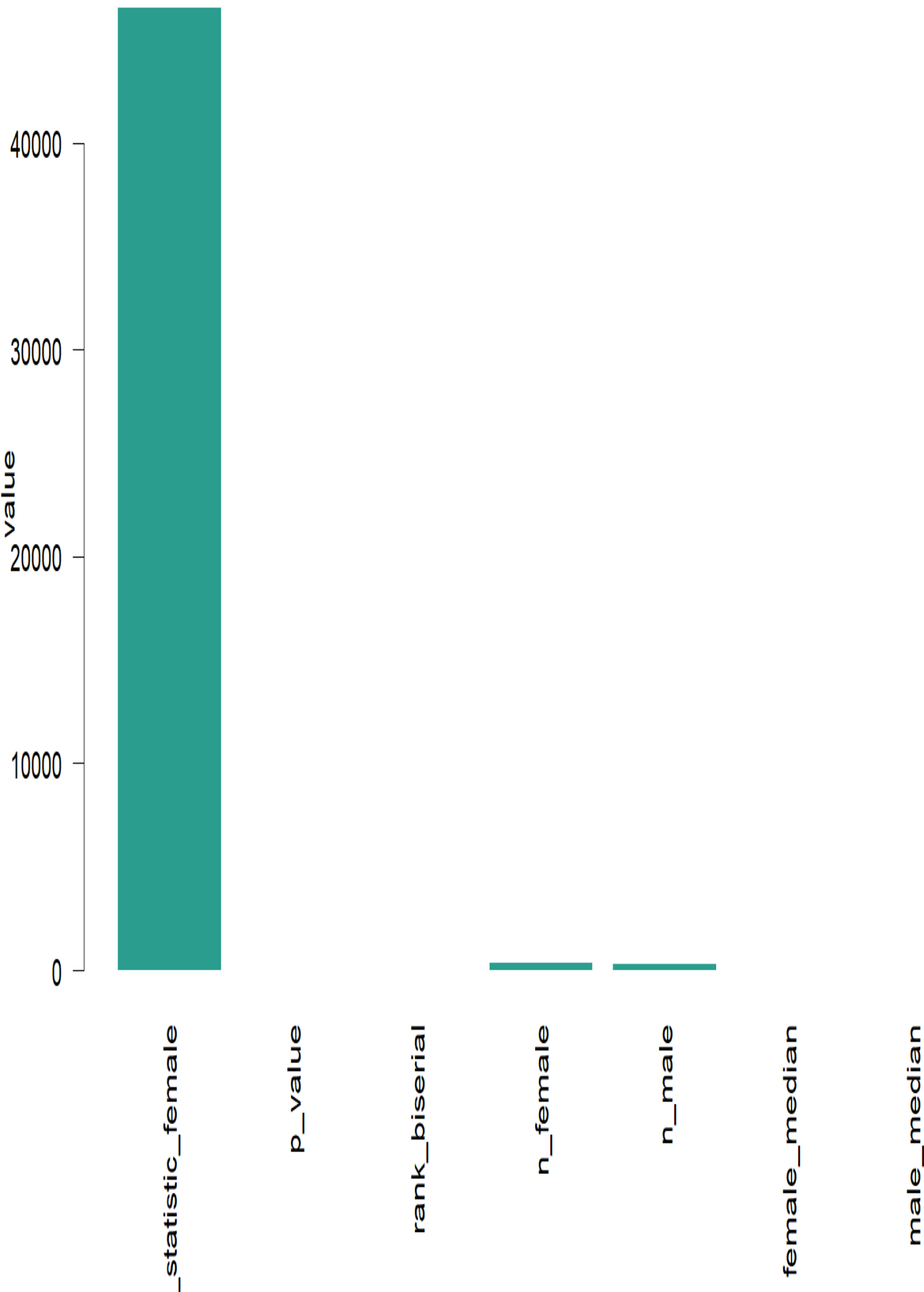
male_median: 4

Interpretation:

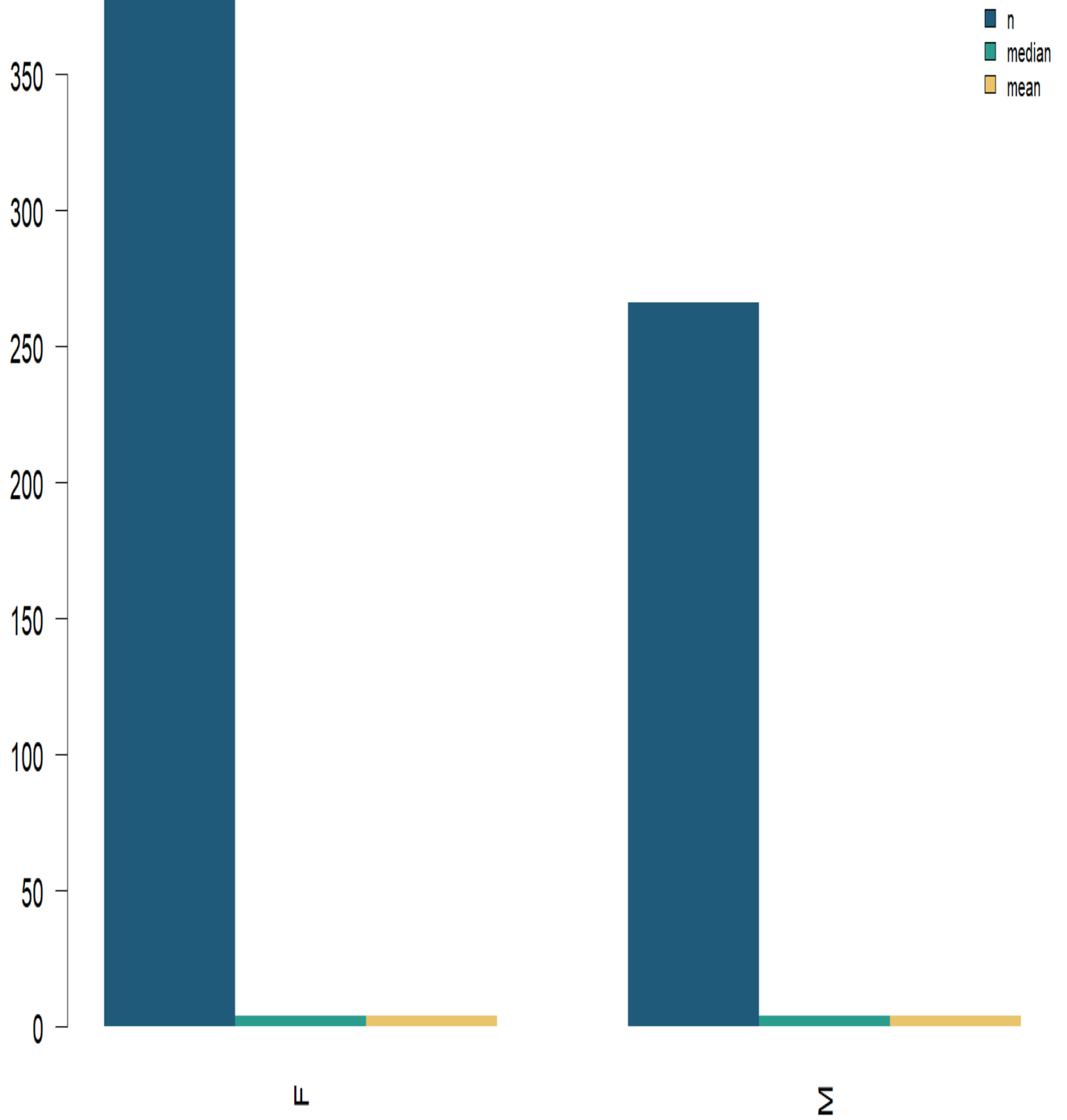
U is oriented to the female group.

U 46516.5 rank-biserial -0.0868195292408567

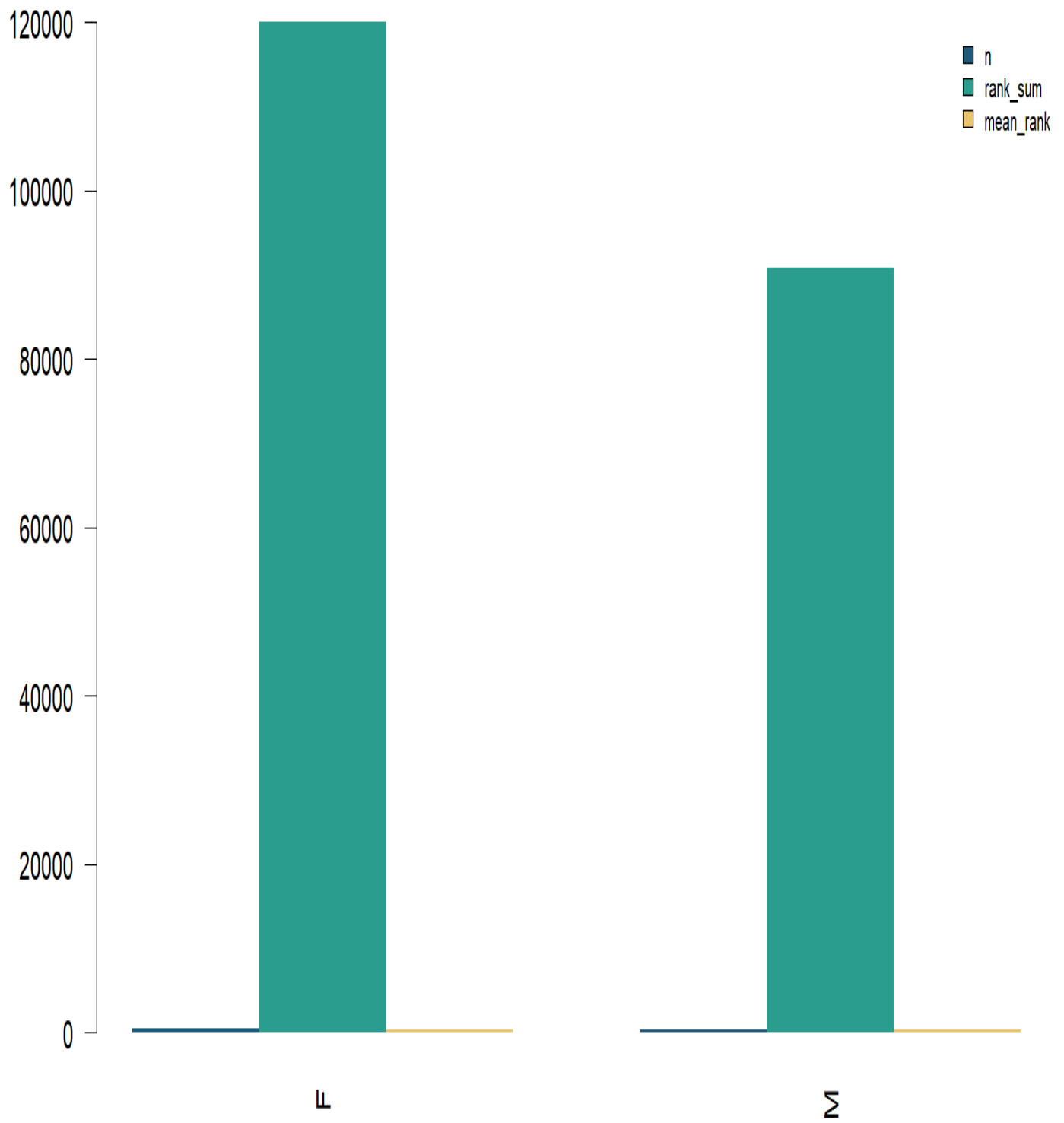
Mann Whitney U Test for Likert Data - primary metrics



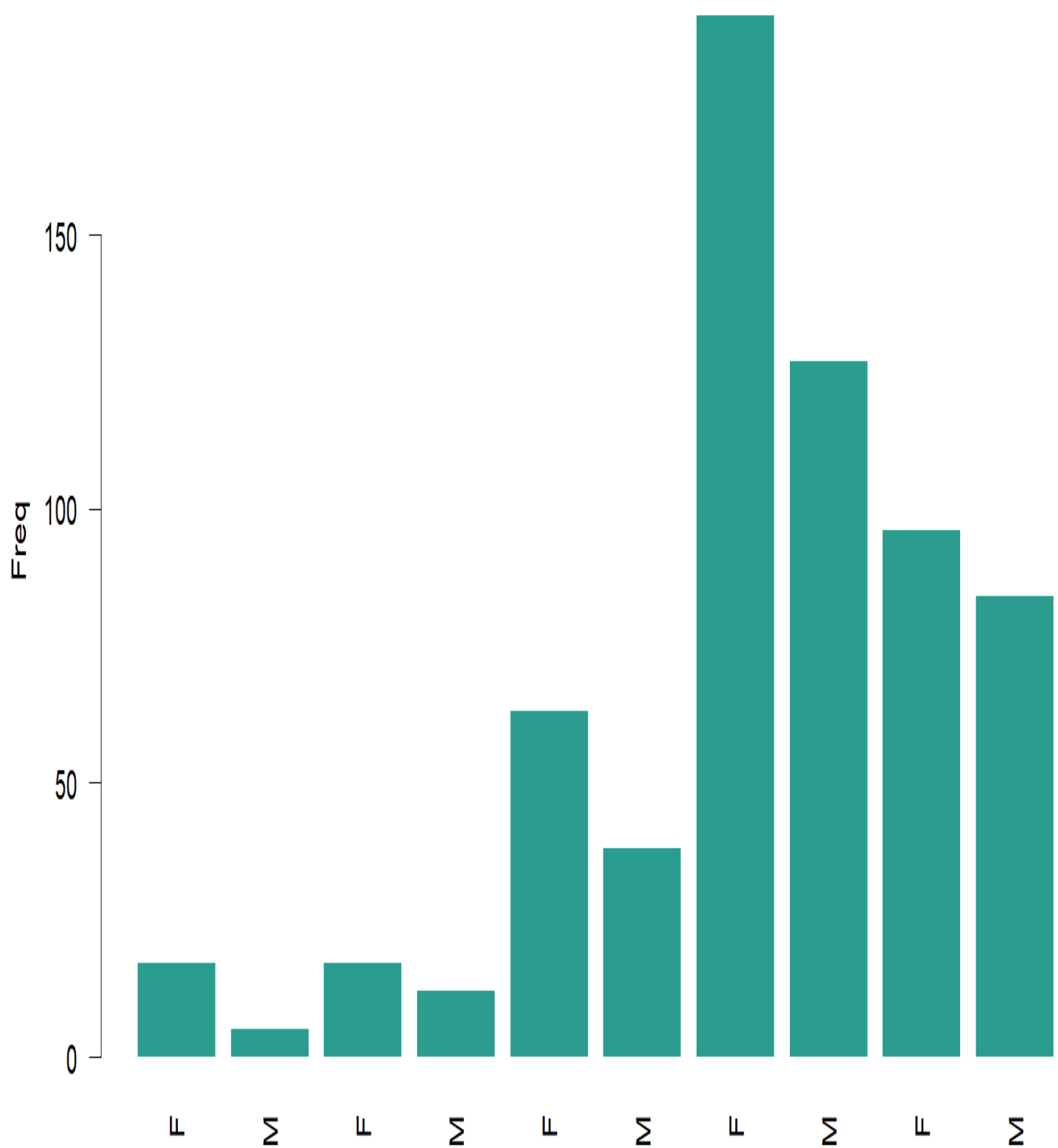
Mann Whitney U Test for Likert Data - sex ordinal summary



Mann Whitney U Test for Likert Data - rank summary



Mann Whitney U Test for Likert Data - response frequencies



Mann Whitney U Test for Likert Data verified results

