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University of South Dakota

Department of Social Work

Intervention To Promote Breast Cancer Screening Among American Indian Women

Statistical Analysis

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Statistical Analysis: Prior to our hypotheses tests, group equivalence in terms of baseline characteristics will be examined using t-tests and chi-square tests. For Hypothesis 1, investigators will compare the percentage of women from each condition who receive mammograms or have scheduled a mammography appointment using a chi-square test. Investigators will supplement this with logistic regression analyses to adjust for confounding covariates. For Hypothesis 2, the averages of score change (pre- to post-test) from the two conditions will be compared using the two-sample t-test, and/or the Wilcoxon rank-sum tests after assessing normality of the scores. The group difference in terms of changes in the given constructs will be tested by a mixed-effect analysis of variance (ANOVA). The mixed-effect ANOVA includes both within-subject (i.e., time: repeated measures) and between-subject factors (i.e., group: intervention versus control) and aims to examine whether there is an interaction between these two factors on the dependent variable. Bonferroni correction will be used to reduce the probability of Type 1 error for multiple comparisons. Investigators will supplement this with a regression analysis of score change in order to adjust for confounding covariates. For Hypothesis 3, averages of general satisfaction and effectiveness scores from each group will be compared using the two-sample t-test. Also, the percentage of participants from each group who endorse "yes" for the intention and recommendation items will be compared using the chi-square test. To minimize a potential non-participation bias, investigators will closely monitor and compare the first and fourth quartiles of responses for differences in background variables and key constructs. Investigators will also carefully document the response rate over the course of this project. IBM SPSS version 25 will be used for data analyses.