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CONSORT Compliance of Randomized Controlled Trials in Rhinoplasty: A Systematic Review

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Abstract:	Background Randomized controlled trials (RCTs) are the gold standard for evaluating surgical interventions, yet adherence to reporting guidelines like CONSORT remains inconsistent. Given the individualized outcomes and diverse techniques in rhinoplasty, transparent reporting is essential for reproducibility and clinical applicability. This systematic review assesses adherence to CONSORT-NPT guidelines in rhinoplasty RCTs and identifies key reporting deficiencies. Methods A systematic review was conducted following PRISMA and AMSTAR-2 guidelines. PubMed, Embase, Cochrane Library, Google Scholar, and MEDLINE were searched for RCTs on rhinoplasty published between 2017 and 2024. Studies were evaluated for adherence to the 25-item CONSORT-NPT checklist. The Cochrane Risk of Bias tool and GRADE framework assessed study quality. Descriptive statistics summarized compliance trends, and correlations with journal impact factor and author count were analyzed. Results Ninety-seven studies met inclusion criteria, with an average CONSORT adherence score of 68.8%. While study objectives (97.9%) and structured abstracts (94.8%) were well reported, trial registration (53.6%) and funding disclosure (51.5%) were inconsistent, raising transparency concerns. Nearly half (47.4%) had ≤50 participants, and 94.8% were single-center trials, limiting generalizability. No significant correlation was found between CONSORT adherence and journal impact factor ($p = 0.669$, $R^2 = 0.002$) or author count ($p = 0.278$, $R^2 = 0.047$). Most studies (68.8%) originated from the Middle East, limiting global applicability. Methodological quality was rated as high or moderate via GRADE. Risk of bias was low or moderate and an AMSTAR-2 evaluation revealed critical and non-critical flaws in previous similar reviews. Conclusion While adherence to CONSORT in rhinoplasty RCTs is moderate, deficiencies in trial registration, funding transparency, and study generalizability remain. Improved enforcement, multicenter collaborations, and broader geographic representation are needed to strengthen research reliability.

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