

Statistical Design and Power

Study Title: DadSpace: Increasing Community Support Resources for Perinatal Fathers

Study ID: 1754

Date of Plan: 6/14/2021

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We anticipate that by the conclusion of the DadSpace program feasibility trial, 28 fathers will have completed the program as well as pretests and posttests, and 28 fathers will have completed pre- and posttests as wait-list controls. With a moderate effect size of Cohen's $d = .50$, this sample size will provide power = .95 using a 2 (time) by 2 (group) repeated measures ANOVA with stability coefficients of $r = .50$. Power will be lower but still sufficient (.81) to detect a small/moderate effect size of $d = .33$. Given that pilot trials of DadSpace (e.g., Becoming Fathers) and focus groups have indicated that DadSpace is likely to be effective, we believe that effect sizes of .40-.50 are likely on each of the primary outcome measures.

In section 4.2, we entered multiple "additional measures," all of which assess program implementation. These measures provide us with feedback as to how the DadSpace program was delivered and received by the participants. Following best practices (e.g., Berkel et al., 2011), this information will serve two purposes: to provide guidance on strengthening the DadSpace program, and to assess how variations in implementation are related to degree of program impact. In order to assess the latter, exploratory correlational analyses will be conducted between implementation variables and gain scores on the pre-/posttest measures of program impact.

Berkel, C., Mauricio, A. M., Schoenfelder, E., & Sandler, I. N. (2011). Putting the pieces together: An integrated model of program implementation. *Prevention Science, 12*, 23-33.
<https://doi.org/10.1007/s11121-010-0186-1>