Reviewer's report

Title: Reducing stress and supporting positive relations in families of young children with diabetes type 1: randomized control study to evaluate the effects of the DELFIN parenting program

Version: 4 Date: 14 June 2012

Reviewer: Melissa Faulkner

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Rationale is provided for a recommendation of ‘minor essential revisions.’

1. Is the question posed original, important and well defined?

This manuscript presents findings of a preliminary investigation to address parental stress and the promotion of positive parenting when a young child has type 1 diabetes. The focus of the study is timely, particularly due to the limited evidence on best approaches to facilitate optimal parenting experiences and outcomes for youth before the onset of puberty.

2. Are the data sound and well controlled?

The data are sound and well controlled. There does need to be a description as to the reason that A1c data were provided on only 24 subjects. Missing data for A1c may have affected the study results. Attention to the reason these data were not available is important for future investigation.

3. Is the interpretation (discussion and conclusion) well balanced and supported by the data?

Yes, the discussion and conclusions are well balanced and supported by the data.

4. Are the methods appropriate and well described, and are sufficient details provided to allow others to evaluate and/or replicate the work?

The methods are appropriate and would allow for replication of the study. However, the intervention is not clearly articulated. There is a figure depicting the sequencing of group parenting sessions provided by a single clinical psychologist, but there is overlap in the sessions. The assigned homework is not well-described. Therefore, a more comprehensive delineation of the intervention is needed in order for replication.

5. What are the strengths and weaknesses of the methods?

The strengths of the methods included the use of well-documented instruments with established reliability. The scoring of the instruments was not provided and would improve clarity for interpretation of the findings. The biochemical assay
method for A1c determination was not provided and should be stated, including if these assays were from one lab.

Typically, outcomes are measured immediately following an intervention. This study only addressed 3-month and 12-month outcomes, which are important for sustainability. However, some description regarding the reason for not measuring outcomes immediately after the intervention is warranted.

A weakness of the design/methods is the absence of a theoretical framework for guiding the study, particularly since it focuses on psychological/cognitive processes.

A major limitation of the study is the small study sample. A power calculation to estimate the appropriate sample size for detecting significant differences in the study groups is recommended.

Since this is a feasibility trial, the adherence to session attendance (intervention fidelity) should be included.

6. Can the writing, organization, tables and figures be improved?

The manuscript is well-written and organized. A few suggestions are provided to enhance clarity in specific sections of the manuscript. The abstract should include the age range of the youth (2-10 years). Although the significant decrease in depression and anxiety in the intervention group is noted in the abstract, the decrease in anxiety and stress in the control group should also be acknowledged.

On page 4, paragraph 1 (background), there is mention of 3 evaluated training programs for German-speaking families. However, the efficacy and outcomes of these programs are not described. This detail would be helpful in knowing the current state of these programs.

On page 6, in the methods sections, the design using a randomized controlled group that was wait listed needs to be included. Although a general purpose of the feasibility study is stated, clear hypotheses are needed. The statement of hypotheses will be useful in interpreting the study measures and analyses.

On page 9, the last sentence states that a subscale in the control group improved, but the name of the subscale or representative variable is not indicated.

Table 3 presents Spearman’s correlations for well-being and parenting but does not indicate if this was for the entire sample of a specific subgroup. The sample size (n) needs to be included.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interest.

Dr. Melissa S. Faulkner