A Social Media Peer Group Intervention for Mothers to Prevent Obesity and Promote Healthy Growth from Infancy: Development and Pilot Trial

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BACKGROUND: Evidence increasingly indicates that childhood obesity prevention efforts should begin as early as infancy. However, few interventions meet the needs of families whose infants are at increased obesity risk due to factors including income and maternal body mass index (BMI). Social media peer groups may offer a promising new way to provide these families with the knowledge, strategies, and support they need to adopt obesity prevention behaviors.

OBJECTIVE: The aim of this study is to develop and pilot test a Facebook-based peer group intervention for mothers, designed to prevent pediatric obesity and promote health beginning in infancy.

METHODS: We conducted in-depth semi-structured interviews with 29 mothers of infants and focus groups with 30 pediatric clinicians, to inform the development of a theory-based intervention. We then conducted a single-group pilot trial with 8 mothers to assess its feasibility and acceptability. All participants were recruited offline at pediatric primary care practices. Participants in the pilot trial joined a private Facebook group, moderated by a psychologist, with a weekly video-based curriculum, and also had the option to meet at a face-to-face event. Within the Facebook group, mothers were encouraged to chat, ask questions, and share photos and videos of themselves and babies practicing healthy behaviors. Consistent with the literature on obesity prevention, the curriculum addressed infant feeding, sleep, activity, and maternal well-being. Feasibility was assessed using the frequency and content of group participation by mothers, and acceptability was measured using online surveys and phone interviews.

RESULTS: Based on preferences of mothers interviewed (mean BMI 35 kg/m2, all Medicaid-insured, mean age 27, all Black), we designed the intervention to include frequent posts with new information, videos showing parents of infants demonstrating healthy behaviors, and an optional face-to-face meeting. We developed a privacy and safety plan that met the needs of participants as well as the requirements of the local institutional review board (IRB), which included use of a “secret” group and frequent screening of participant posts. Clinicians, 97% (29/30) women and 87% (26/30) pediatricians, preferred no direct involvement in the intervention, but were supportive of their patients’ participation. In our 8-week, single group pilot trial, all participants (mean BMI 35 kg/m2, all Medicaid-insured, mean age 28, all Black) viewed every weekly video post, and interacted frequently, with a weekly average of 4.4 posts/comments from each participant. All participant posts were related to parenting topics. Participants initiated conversations about behaviors related to healthy infant growth including solid food introduction, feeding volume, and managing stress. All 8 pilot group participants reported that they found the group helpful and would recommend it to others.

CONCLUSIONS: Our methodology was feasible and acceptable to low-income mothers of infants at high risk of obesity, and could be adapted to implement peer groups through social media for underserved populations in varied settings.

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