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Positive Parenting Education Offered in Group Well Child Care: A Program Evaluation

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Abstract

Introduction: Standard pediatric preventive care seldom includes evidence-based parenting training as a routine part of well child care. This study describes a group well child care (GWCC) program that incorporated evidence-based positive parenting training into its curriculum, which was implemented at a federally qualified health center (FQHC) serving low-income Asian immigrants. This mixed-methods program evaluation sought to assess the feasibility, financial sustainability, and acceptability of providing positive parenting training in a GWCC format at a busy primary care clinic.

Methods: To evaluate sustainability/financial feasibility, the study compared GWCC's enrollment, attendance, and provider productivity with usual care. Open-ended parent survey questions and focus groups (n=66 survey respondents; n=21 focus group participants) elicited qualitative parental feedback on satisfaction and self-reported learning about parenting and child development topics.

Results: Provider productivity for GWCC was higher (2.99 patients/hour) compared to usual care (2.63 patients/ hour). Attendance at GWCC (98%, 95% confidence interval 92-100%) was also higher than for standard care (78%, 95% confidence interval 76-80%), supporting financial feasibility in clinical practice. Parent surveys also indicated high levels of satisfaction with GWCC: 84% had no suggestions for improvement or reported "everything is excellent." The top parent-reported benefits included learning new parenting content (21%), sharing with other mothers (17%), and having more time with the medical provider (7%). Nearly all survey respondents reported learning new content: most commonly, about nutrition, child development, and positive parenting. Notably, parents frequently reported playing and reading with their children more and utilizing praise and more positive disciplinary techniques.

Conclusion: This evaluation supports the feasibility of providing positive parenting education in the format of group well child care (GWCC) visits among low-income Asian immigrants. It also provides preliminary, qualitative evidence for GWCC's potential to promote knowledge of positive parenting practices in similar populations.

INTRODUCTION

Nurturing parenting practices built on responsive interaction, positive discipline, and secure attachment form the foundation for healthy mental and emotional development in childhood [1]. Safe, stable, and nurturing relationships with adult caregivers can "buffer" the effects of toxic stress and promote physical and mental health [2,3], making parenting support a key lever for promoting child health and development [4]. Because infants and toddlers in the US almost universally attend primary care visits for immunizations and other well child care, pediatric primary care clinics are well positioned to promote relational health, or the capacity to form safe, stable, and nurturing relationships, through parenting education and support services [1,2]. For this reason, a 2016 policy statement from the American Academy of Pediatrics (AAP) called for the provision of family and parenting support in the medical home to help ameliorate the impacts of poverty on child health [5].

Multiple parent training programs have gathered evidence for their efficacy in promoting positive parenting practices and ameliorating behavioral concerns in childhood. However, few models exist for making the core content of these evidence-based parent education programs more widely accessible to parents through pediatric primary care settings. This report presents one model for providing positive parenting training as a routine part of general pediatric primary care. This model used a trauma-informed, evidence-based parenting curriculum (*Nurturing Parenting*'s Community Education modules [6]) as the basis for shorter, more interactive parent training sessions offered in the format of group well child care (GWCC) medical visits.

Instead of the standard, 15-minute individual well child

visit for immunizations and anticipatory guidance, the group well child care (GWCC) model places 4-8 infants of a similar age and their primary caregivers together for their preventive medical visits. Group medical visits typically last for 1.5-2 hours (the combined time for multiple individual visits), allowing for more time with medical providers while also creating venues for parent peer support through regular group meetings. Multiple studies have reported high parent satisfaction with GWCC [7-10], with greater opportunity to discuss psychosocial topics [11], find peer support [11,12], and cover maternal wellness content in the Centering Parenting model [12]. Earlier research suggested that GWCC visits cover more recommended content than individual visits [13]. Multiple studies have found GWCC to be associated with improved well child care attendance [7,8,12,14,15], and a recent randomized controlled trial (RCT) found a favorable impact on timely pediatric immunization rates but no significant difference in anticipatory guidance or family-centered care [14]. A recent systematic review of GWCC programs concludes that "group well-child care is useful in providing efficient and patient-centered care and shows promise for use in underserved populations" [16]. However, published research on other aspects of the clinical feasibility of this model (such as provider productivity) is limited, and little recent research has explored GWCC's impact on parenting knowledge and attitudes, especially regarding child development and positive discipline. Also, unlike many other previously researched GWCC programs, this program did *not* use the Centering Parenting curriculum, which takes a less didactic approach [15]; in part due to caregiver desire for more teaching on child behavior and development, our program incorporated more interactive group education on positive discipline and early childhood development, both grounded in the consistent promotion of relational health.

This study presents the results of a mixed-methods program evaluation of a GWCC program that incorporated positive parenting education into its curriculum, which was implemented at a non-academic federally qualified health center (FQHC) largely serving low-income Asian immigrants and refugees. Overall, this evaluation sought to assess the feasibility, financial sustainability, and acceptability of providing positive parenting education in a GWCC format at a busy primary care clinic. The primary outcome of this study consisted of the program's financial feasibility as measured through attendance at well child visits and provider productivity. Secondarily, this evaluation explored parental self-reported learning about positive parenting and child development through qualitative methods. Of note, a pilot quantitative analysis examining risk for developmental delay in children from this same program [17], was previously published separately but focused on developmental outcomes among participating children rather than program feasibility, acceptability to participating caregivers, and caregiver-reported impact on parenting-related knowledge and practices, which are being reported here.

MATERIALS AND METHODS

Participants and Setting

The practice setting is a federally qualified health center (FQHC) serving 28,000 patients, mostly low-income Asian immigrants/refugees, in English and 12 different Asian languages. In 2015, this clinic served 5,940 children ages 0-17 years with approximately 300 infant deliveries per year. In 2012, the clinic launched the Empowering Mothers program, which provided parenting support and education for families of children ages 0-18 months. The intervention consisted of a series of eight GWCC visits involving 4-8 infants and their mothers occurring at the periodicity intervals specified by Bright Futures guidelines [18]. Each two-hour group visit had several components: 1) the pre-visit (infant vital signs, physical exam, immunizations, and screenings); 2) interactive teaching based on the curriculum; 3) question/answer time; and 4) post-session with more physical exams, immunizations, surveys, and socializing.

The curriculum covered: nurturing/attachment; child development; nutrition; safety; stress management for caregivers; and positive discipline for toddlers. The program team adapted materials from *Nurturing Parenting*: *Community Education* [6], an evidence-based parenting curriculum, and from Bright Futures [18], guidelines for preventive pediatric anticipatory guidance, and translated these materials into Burmese, Cantonese, Karen, and Mongolian. Pediatricians and family practice physicians served as lead facilitators. Language-concordant community health workers or navigators co-facilitated the groups and provided translation, outreach, care coordination, and logistical support. Medical assistants obtained vital signs and provided immunizations. A grant-funded program coordinator organized most logistics. Non-licensed staff, including the program coordinator and community health workers/navigators, received training in positive parenting (through participation in *Nurturing Parenting* training from its founder) and early childhood development.

Usual care consisted of 15-20 minute individual well child care (WCC) visits according to the Bright Futures schedule (same as GWCC). For both usual care and GWCC, infants received screenings and immunizations according to Bright Futures and Centers for Disease Control (CDC) guidelines. In both conditions, pediatricians and family practitioners provided most pediatric primary care and made confidential referrals to on-site behavioral health services, Early Intervention, other community support services, and/or social services as needed.

Program Evaluation Methods

To determine GWCC's financial feasibility, the evaluation compared total enrollment, attendance rate, and provider productivity with usual care, using GWCC attendance records and demographic and visit data extracted from the electronic health record on all clinic infants born from 07/01/2012-12/31/2015. The comparison of WCC attendance included all infants born in this period with an identified primary care provider who attended at least one preventive care visit.

To assess parents' reactions to the program, and to explore the main lessons that they learned, the team administered anonymous parent surveys at the end of most GWCC sessions

with three open-ended questions:

- "What did you like best about today's meeting?"
- "What is one thing that you learned?"
- "What is one suggestion for improving our sessions?"

Clinic interpreters translated written responses into English. For parents who could not complete a written survey, a staff member read the questions aloud and wrote down the parent responses. Staff collected a total of 278 surveys from 66 parents.

Further parental feedback came from three focus groups convening a total of 21 participants and held in all the language groups served by GWCC: Cantonese (n=4), Mongolian (n=10), and Burmese/Karen (n=7). Language-concordant clinic staff who had *not* helped to organize the intervention conducted these focus groups a few months after the final group session. Co-facilitators took detailed notes during the focus groups and then translated them into English.

The two authors then conducted an iterative and inductive analysis of the translated survey responses and focus group notes to develop codes based on the study aims and participant responses. Both authors independently reviewed the translated survey and focus group documents; identified and marked codes in the source documents; and grouped these codes into emerging themes. They then came together to discuss their codes and themes. To ensure validity, at least two investigators reviewed the coding systems and themes to ensure a shared understanding of their meaning [19,20]. There was good consistency between both authors' initial lists of the most common themes and overall agreement on which themes emerged most frequently. Differences in the themes and codes for individual parent responses were discussed and settled through consensus, resulting in a unified set of themes and a final consensus analysis of the major themes emerging from the qualitative data.

This study was reviewed by the Institutional Review Board (IRB) at the University of California San Francisco and was determined to be "not human subjects research" as this project "includes program evaluations, quality improvement activities, or other activities involving de-identified data that do not require further IRB oversight according to the federal regulations summarized in [the federal Department of Health and Human Services regulations in] 45 CFR 46.102(d)."

Findings

Feasibility: Enrollment and provider productivity figures supported the financial feasibility of GWCC. Out of the 1049 infants born between 07/01/2012 - 12/30/2015 who enrolled before age <45 days and had at least one WCC visit at the study site, 66 (6.3%) enrolled in GWCC. GWCC infants attended an average of 7.8 WCC's from 0-18 months out of an expected 8 visits (98% WCC attendance, 95% confidence interval 93-100%), compared to an average of 6.2 visits or 78% (95% confidence interval 76%-80%) attendance for usual care; the difference in well child care attendance was statistically significant ($p < 0.05$). Not only was attendance higher for GWCC visits, provider productivity was higher as well. Pediatric provider productivity during GWCC visits averaged 2.98 patients per hour (95% confidence interval 2.8–3.2), compared to an average agency-wide pediatric provider productivity of 2.63 patients per hour in 2015 (Table 1).

GWCC Self-Reported Parental Benefits and Learning

Qualitative parental feedback from surveys and focus groups also supported the efficacy of GWCC in building peer support and teaching positive parenting concepts. When queried about what they liked best about the group visits, parents reported learning new content related to parenting and child health/development most frequently (21%), followed by the opportunity to share with other mothers (17%) and having more time with the medical provider (7%). Figure 1a,b,c lists the most commonly identified themes in the qualitative content analysis of parental responses to each of the open-ended survey questions, and the frequency with which they emerged.

Many mothers described the value of meeting with other mothers, gaining social support that sometimes extended outside of the group sessions, as reported by these mothers in focus groups:

We gained more friends. Sometimes we call each other by phone or visit each other's homes.

We still keep in touch with each other, mostly through We-Chat (Chinese social media platform). We will even meet together once a year to celebrate everyone's birthday.

Others noted that they enjoyed having more time with their child's doctor to address questions:

I like being able to ask questions and have my questions answered.

The doctor can answer our questions.

The most commonly reported lessons learned from the

Table 1: Comparison of enrolment, well child care (WCC) attendance, and provider productivity[a]

Group	Enrollment (number of infants)		Average WCC Attendance 0-18 Months		Average Pediatric Provider Productivity (95% CI)
	#	%	# visits attended (95% CI[c])	% out of 8 visits attended (95% CI)	
Comparison (Usual Care)	983	93.70%	6.2 (6.1-6.4)	78% (76.4-79.7%)	2.63 patient/hour[b]
Intrevention (GWCC)	66	6.30%	7.8 (7.4-8.0)	97.8% (92.5%-100)[d]	2.99 patients/hour (2.77-3.20)

[a]For all clinic infants born 07/01/2012-12/31/2015 enrolled by age 45 days, the age range for GWCC infants and the birthdates for the infants in the First 5 Dataset.
[b]Average Pediatric Provider Productivity in 2015 provided by clinic, no confidence interval available. Actual Productivity lower than maximum of 3 qualifying encounters per hour due to patient no-shows.
[c]CI=confidence interval.
[d]Stastically significant difference at 0.05 level, p<0.005

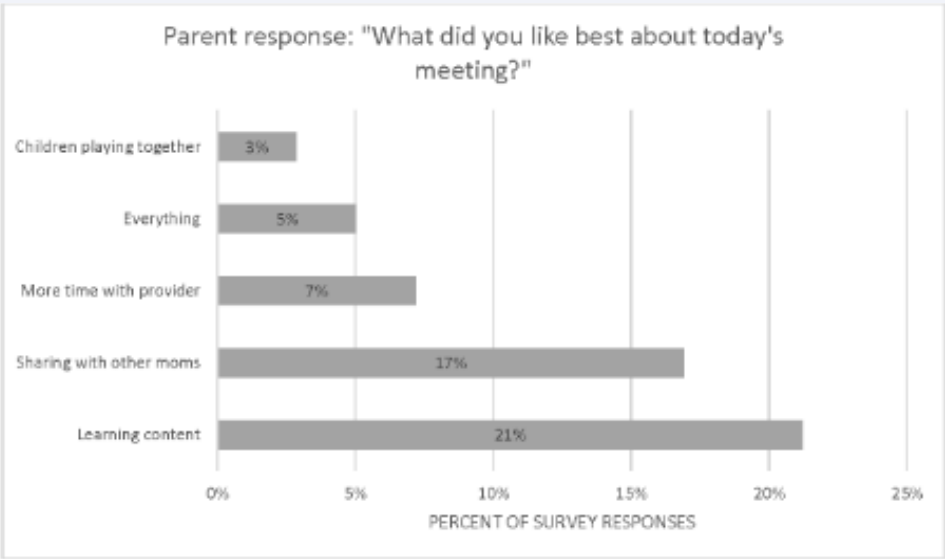

Figure 1 Patient Response to: ''What did you like best about today's meeting?''

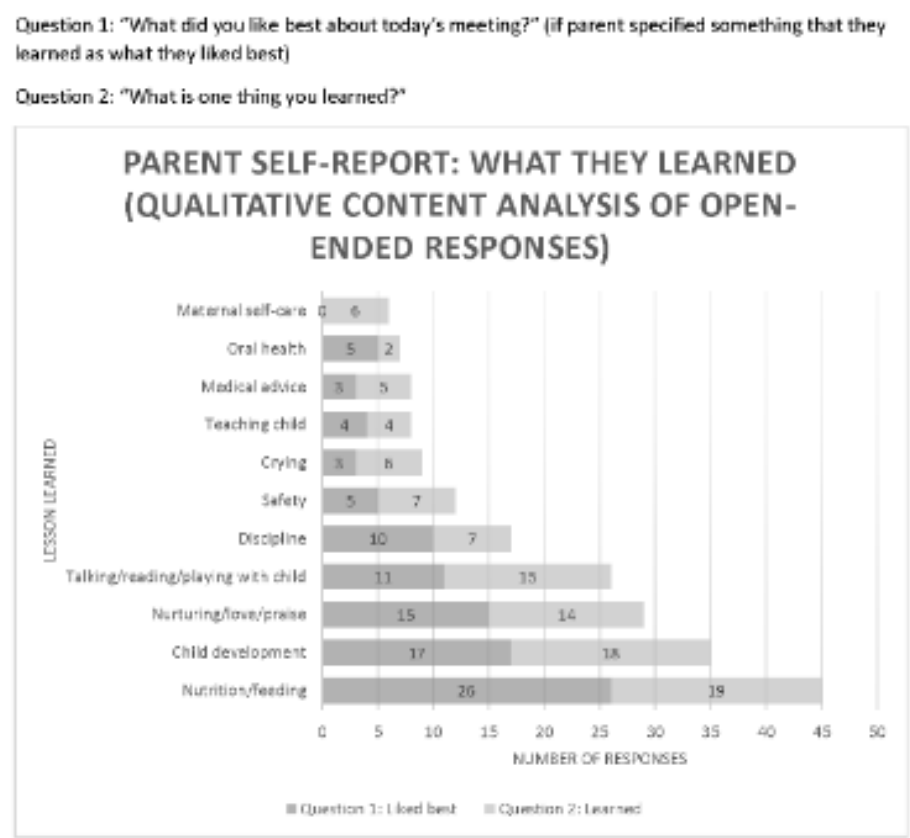

Figure 1b Parent Self-Report: Lessons Learned.

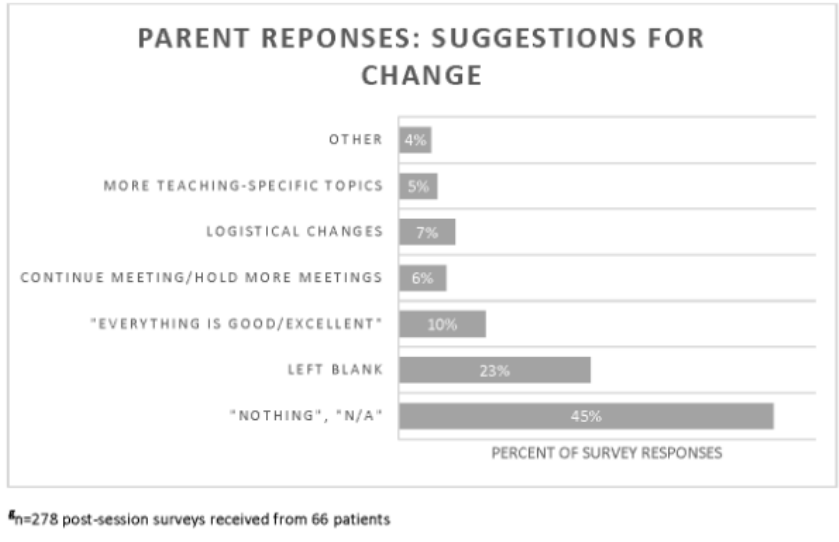

Figure 1c Parent response to: ''What is one thing you would like to change about our sessions?''

program included: nutrition/feeding, child development, nurturing, talking/reading/playing with young children, and positive discipline, practices associated with better developmental outcomes. In surveys and focus groups, parents described improved nutritional practices, as reported by the following mothers during focus groups:

I used to feed my child whatever I wanted and whatever he liked, but now I know what foods to feed my child according to his age.

It's not good to let children drink soda and eat too many sweets.

Other mothers highlighted what they learned about the importance of play and interaction to promote healthy mental development:

I learned that children must be able to speak by the time they are 2 years old. We need to talk to children a lot. We need to read books for children and praise them when they are doing good things.

TV is not good for my baby. Books are important.

We learned to take time to play with our kids.

Many parents also reported that they learned the importance of nurturing parenting practices, replacing spanking with praise and positive disciplinary techniques:

We have to give care, love, and warm kindness. Touch them softly. Because of a mother's love, children may develop brighter brains and have a more positive mind.

Giving love is really important for kids in their life and will affect their behavior and relationships with others.

We were brought up with spanking as discipline from our parents…I've come to understand that when I get mad and want to hit my children, I will remember this class and change myself. My children have significantly changed day by day, after this class.

When asked for suggestions for improvement, a few had specific requests for logistical changes or more teaching on particular topics. The great majority (84%) either had no suggestions, said that "everything was great," or asked to continue meeting as a group rather than stopping.

DISCUSSION

This program evaluation of a group well child care (GWCC) program at a federally qualified health center serving Asian immigrants supports the operational feasibility, financial sustainability, and acceptability of providing positive parenting education as a routine part of pediatric primary care in a group medical visit format. Higher average provider productivity and attendance rates in GWCC provide evidence of its financial feasibility and sustainability in similar community-based primary care settings. Qualitative parent feedback in surveys and focus groups endorse increased peer support and changes to parenting knowledge and behavior (such as playing and reading more with their children and using encouragement rather than spanking) associated with healthier early childhood development. Survey and focus group data suggest that many parents learned the importance of interacting more frequently and positively with their infants, behavior that can strengthen caregiver-child attachment and promote healthy mental and emotional development.

This qualitative evaluation of this group well child care (GWCC) program was supplemented by a quantitative pilot study

exploring risk for developmental delay among this same cohort of young children, which was previously reported elsewhere [17]. To summarize this previously published analysis of results from the Ages and Stages Questionnaire (ASQ)-3 done at age 18 months, participation in the GWCC program was associated with lower odds for risk for developmental delay in the problem-solving domain compared to other children from the same clinic during the same period receiving usual care (OR 0.40, $p<0.05$). Alongside this promising signal for potential developmental benefit, the feasibility and acceptability demonstrated through this program evaluation support the promise of the group medical visit format as a scalable, possibly effective way of promoting healthy mental and emotional development in children in pediatric primary care.

Our qualitative findings align well with earlier research in GWCC reporting multiple parent self-reported benefits, including peer support and learning [7,10], greater face time with providers and having questions answered [21]. This study also supports earlier research reporting high satisfaction with GWCC [7,10]; in those studies, nearly all the parents queried indicated a desire to continue GWCC. The evidence is building that many participating parents find GWCC acceptable and perhaps preferable to standard care. Furthermore, our findings of higher provider productivity in providing group rather than individual care aligns with other, recently published research demonstrating GWCC's efficiency as a method for providing well-child care, with higher rates of attendance at well child care visits [12,15,16,22]. This study provides further evidence for both the feasibility and acceptability of the GWCC format while suggesting that this format can be leveraged not only for routine anticipatory guidance, but for more robust universal positive parenting education that, qualitatively, appears to impact parent self-reported play, interaction, and use of positive disciplinary approaches with their young children.

CONCLUSIONS, LIMITATIONS, & RECOMMENDATIONS

This study is limited by its reliance on existing quality improvement data (parent surveys; focus group notes), which, due to staffing limitations at the study site, did not include recordings of focus groups or verifications of initial staff translations of written parent survey comments by other language-concordant staff. In addition, this study relies on parent self-report regarding lessons learned to infer potential change in parenting knowledge and attitudes. Future evaluation research of this model should ideally include structured behavioral observations or validated measures of parenting knowledge/attitudes rather than relying exclusively on open-ended parental self-report. Future research should also assess child health, behavioral, and developmental outcomes as the ultimate measure of the program's impact and clinical utility.

Despite these limitations, GWCC as a method for providing parenting support deserves further research into its effects on parenting knowledge and behavior, and ultimately, on early childhood health and development. Because medical providers can bill for each individual child seen in the group visit, GWCC is a financially viable and scalable parenting support intervention that leverages the near-universal reach of pediatric primary care. This program evaluation demonstrates the financial viability, operational feasibility, and high levels of acceptability of a GWCC program specifically designed to promote relational health and early childhood development within a busy safety net pediatric primary care clinic. It was successfully implemented over 4 years among Asian immigrants and refugees with grant funding but has since continued (with a break during the COVID-19 pandemic) with clinic operational funds, independent of grant funding, supported by reimbursements for well child care. If shown through further research to impact child health, behavioral, and/or developmental outcomes, GWCC may constitute a financially sustainable way of redesigning the delivery of preventive healthcare for low-income immigrant children to support relational health, resilience, and healthy mental and emotional development.

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