Evaluating the Effect of Reach Out and Read on Clinic Values, Attitudes, and Knowledge

Heather Burton, MD; Dipesh Navsaria, MPH, MSLIS, MD

ABSTRACT

Objective: Reach Out and Read is a primary care clinic-based early childhood literacy promotion program that facilitates discussion around literacy and encourages shared reading at home. No prior studies have examined the effect of program implementation on clinic staff and clinic values, attitudes, and knowledge related to early literacy. The hypothesis of this study was that Reach Out and Read implementation not only improves early childhood literacy promotion, but also improves aspects of the clinician's work environment. Understanding the potential effects of this program on clinic staff is important, since many clinics will implement this program in the near future.

Methods: Semistructured key informant interviews were performed with 10 study clinics with Reach Out and Read and 7 control clinics. Interviews were transcribed, coded, and analyzed according to standard qualitative research protocol. Comparisons were made for differences in clinic morale and attitudes towards early childhood literacy. A secondary analysis examined practice and workplace changes in study clinics.

Results: The coded transcripts showed that clinicians at the majority of the study clinics believed that the program boosted clinic morale, increased provider satisfaction, improved patient-clinician relationships, and promoted a literacy-rich environment. Compared to clinicians in control clinics, clinicians in study clinics were more likely to report that they played a large role in promoting literacy and reported having more consistent literacy discussion in visits. Funding was the only concern mentioned consistently by clinics with Reach Out and Read.

Conclusion: Understanding potential changes that can occur in clinics because of the Reach Out and Read program is crucial to help clinics adequately prepare for the implementation process. Knowing that this program has many advantages and few disadvantages in clinics may encourage more participation. Further studies should compare clinics with Reach Out and Read to those with no interest in the program to determine if results from this study can be more broadly generalized.

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Author Affiliations: University of Wisconsin School of Medicine and Public Health, Madison, Wis (Burton, Navsaria); University of Wisconsin Hospital and Clinics (Navsaria).

Corresponding Author: Heather Burton, MD, 3925 NE 45th St, Apt 111, Seattle, WA 98105; phone 920.573.2119; email hsmaby@wisc.edu.

INTRODUCTION

Reach Out and Read is a primary care clinic-based program that promotes early childhood literacy through providing books and advice within pediatric well-child visits. Prior studies show that parents who participate in the program read aloud to their children more often, own more children's books, and enjoy reading together as a family more than families who do not participate.[1-3] In addition, children participating in Reach Out and Read were found to have higher vocabulary scores and higher expressive and receptive language scores than their peers.[4,5] These skills are crucial for children's social, cognitive, and emotional development.[6] Despite evidence supporting Reach Out and Read, remarkably little research has been performed regarding the effect of the program on the clinic itself and staff. In 2009, King et al examined how clinic culture influenced successful program implementation, but no published research has examined the opposite: how Reach Out and Read affects clinic environment and employees.[8]

In August 2014, the American Academy of Pediatrics (AAP) released a policy statement recommending that early childhood literacy promotion be incorporated into pediatric practices and referenced Reach Out and Read as a successful evidence-based model.[7] UW Health has funded Reach Out and Read in all of its primary care clinics that see children, although at the time of this study, not all UW Health clinics had yet implemented the program. With the

Table 1. Comparison of Study and Control Group Demographics

	Study Group	Control Group
Number of clinics participating	10	7
Clinic response rate	38%	28%
Participants	5 family medicine physicians 4 pediatricians 3 clinic coordinators	5 family medicine physicians 2 pediatricians 1 clinic coordinator
Geographic location	6 in Madison/ Milwaukee 4 in other areas of Wisconsin	2 in Madison/ Milwaukee 5 in other areas of Wisconsin
Clinic type	3 community health centers 2 resident clinics 5 academic or private clinics	1 community health center 1 resident clinic 5 academic or private clinics
Participant average age	44 years	43 years
Participant sex	11 females, 1 male	7 females, 1 male
Participant average length of time working at that clinic	8 years	10 years

Table 2: Unique Responses to Interview Questions Among Study and Control Groups

Interview Question	Study Group	Control Group
What is something about your clinic that makes you proud?	• High quality patient care • Being proactive for community health needs	• Strong staff commitment
What is a clinician's role in promoting childhood literacy?	• Getting books into the home • Promote family reading • Encourage bedtime reading routines • Connecting families to community literary resources • Helping parents who struggle with literacy themselves	• Stress the importance early of reading to families
What is your current literacy promotion?	• Consistent literacy promotion in every visit with free book	• Some inconsistent literacy discussion during visits
What do you think are the advantages of the Reach Out and Read program?	• Promoting family bonding • Using the book as an icebreaker • Increasing provider knowledge of literacy • Helps parents remember the conversation about literacy when they get home • Large impact on families but requires little time or effort	• Stress the importance of literacy • Helps connect families to community resources
What do you think are the disadvantages of the Reach Out and Read program?	• Inadequate funding • Extra work • Implementation • Inadequate program staff	• Time commitment for providers

AAP recommendation, clinics considering implementing Reach Out and Read may find further insight helpful.

This study sought to answer the following questions: (1) How are clinic values, attitudes, and knowledge relating to early childhood literacy affected by Reach Out and Read implementation? (2) How do providers and clinic staff feel that the program has changed their clinic environment? (3) What are the barriers to implementation in clinics? We hypothesized that Reach Out and Read not only improves early childhood literacy promotion, but also improves aspects of clinicians' job satisfaction, patient-clinician relationships, and clinic culture.

METHODS

This study involved a qualitative descriptive evaluation of the effects of Reach Out and Read on clinic attitudes, values, and knowledge relating to early childhood literacy. Key informant semistructured interviews were the primary research methodology. The Institutional Review Board of the University of Wisconsin classified this study as exempt.

Study Population

Two different clinic groups were used in this study: (1) a study group consisting of Wisconsin clinics that have had Reach Out and Read in effect for at least 1 year (those with fewer than 1 year of operation were excluded as changes may not yet be evident); (2) a control group consisting of Wisconsin clinics that had applied for Reach Out and Read but were preimplementation.

The clinics in both groups were distributed geographically throughout rural, urban, and suburban Wisconsin and included a mix of independent, academic, community, and federally qualified health centers, as well as clinics that are a part of larger health care systems.

Recruitment and Data Collection

A purposive sample of clinics from both groups was selected, and medical consultants and clinic coordinators responsible for the daily management of Reach Out and Read at each clinic were contacted via email requesting an interview. Twenty-six out of 145 Wisconsin clinics with Reach Out and Read and 25 out of 66 clinics in application were contacted about participating in the study. A follow-up email was sent to all clinics that did not respond. Phone interviews were scheduled at the convenience of the interviewee. No incentives were offered for participation.

Standardized interview scripts were prepared to learn about the overall clinic environment and attitudes toward early childhood literacy promotion. All participants were asked a series of questions regarding work environment, clinic morale, patient-clinician relationships, interactions among coworkers, and early childhood literacy promotion. In addition, the study group participants were asked directly about changes they had seen in their clinic or in their well-child care as a result of Reach Out and Read. The interviews lasted between 15 and 45 minutes and all were performed

by the same interviewer. *See Appendices A and B at www.wmjonline.org for interview questions.*

Data Analysis

With appropriate permissions and informed consent, phone interviews were recorded and transcribed, then analyzed according to qualitative methods following the protocol of Taylor-Powell and Renner.[9] Transcripts were openly coded by 1 coder, and core themes were developed based on the interview questions and emergent patterns from the transcript codes. Major codes were developed based on content repetition and word frequency. Further analysis looked specifically at how employees at the study clinics perceived the program affects their clinic.

RESULTS

Of the 26 clinics with Reach Out and Read that were contacted initially, 10 participated in phone interviews. Of the 25 clinics contacted in the control group, 7 participated in interviews: 5 via phone and 2 via email (per physician request based on scheduling constraints). Table 1 shows a comparison of the study and control group demographics.

Clinics involved in Reach Out and Read that were not studied are a mix of long-engaged programs (>10 years) and recently engaged programs (2-10 years), in a variety of settings and practice populations. Less is known about the clinics that do not have pending program applications, although they are also heterogenous, representing a mix of settings and practice populations.

Comparison Between Study and Control Groups

A comparison of coded interview transcripts from clinics in both groups showed many similarities in overall clinic work environment. In both groups, the majority of individuals indicated that their clinic was a good place to work with a positive environment and dedicated staff, although 2 participants in each group said there were some recent challenges related to staff turnover or clinic administration changes. No notable differences in clinic morale, interactions among coworkers, or patient-clinician relationships were found between the 2 groups.

When asked how about the importance of early childhood literacy on a child's growth, development, and overall health, every participant stated that early childhood literacy is very important. When asked what a clinician's role is in promoting early childhood literacy, respondents in both groups had similar responses, but the study group identified additional responsibilities compared to the control group. In both groups, interviewees mentioned giving anticipatory guidance for parents about literacy; stressing the importance of reading for parents; helping get books into the home; and giving parents expectations, tips, and age-appropriate suggestions for their child's reading. Study group participants offered additional responses, including encouraging bedtime reading routines, promoting family bonding through reading, helping parents who struggle with literacy themselves, connecting parents to community resources such as libraries, encouraging families to use reading as a healthy alternative to TV, and using motivational interviewing to educate and guide families about literacy.

Box 1. Changes Reported by Study Clinics Since Implementation of Reach Out and Read

- Clinics are taking a larger approach to literacy overall (literacy rich waiting rooms, lending libraries, etc.)
- Increased time spent on literacy in visits
- More free books given out
- Books are now developmentally- and culturally- appropriate
- Boosted clinic morale
- Exciting for providers and clinic staff
- Improved provider satisfaction
- Increased literacy discussion among employees
- Helps providers uncover extra information about patients during visits
- Improved patient-clinician relationships
- Families and kids enjoy receiving the books

Box 2. Summary of Notable Comments From Physicians and Staff Working at Clinics With Reach Out and Read

- "[The clinician's role is] providing books and just really talking about how important it is to start reading with your child as early as possible, even to a newborn... And helping them find other sources if the parents are illiterate, encouraging them to go to the library or finding those other resources in the community even though parents might be at a bit of a disadvantage."
- "I think it's more than just talking about it, I think it's actually showing them and having them see a book... that really fields it, really makes it much more meaningful to families."
- "We have multiple languages which is wonderful, but trying to keep them stocked adequately for both English and Spanish...I guess that's maybe the one disadvantage, and I don't really know that that's really a disadvantage, it's just more or less an added responsibility that goes along with it. But I think we're all happy to do it with the many, many benefits that it provides our patients."
- "It [Reach Out and Read] is high yield and relatively low input of time and effort."
- "I'm probably happier with my job and my work [since implementation of the Reach Out and Read program at the clinic]."
- "[Reach Out and Read] has given some people an opportunity to showcase some additional skills, giving them more responsibility to do some things, and giving them some ownership."

Although all participants from both groups said that clinicians have a responsibility in promoting early childhood literacy, none of the control clinic interviewees identified current formal literacy promotion programs. Most control clinic participants said that the only current literacy promotion in the clinic was some verbal discussion during well-child visits, but it was not consistent and varied based on provider (5 out of 7 clinics).

When asked about the main advantages of implementing Reach Out and Read, participants from study clinics recognized many more benefits. Control clinic respondents gave a variety of responses, including giving out free books, stressing the importance of literacy to parents, helping kids get ready for school, connecting the family to libraries and community resources, and introducing literacy in a positive way. Study clinic respondents cited promoting family bonding; providing free books, especially for low-income or high-risk patients; and using the book as a good

ice breaker/ conversation starter about literacy. Other common responses from the study clinics were that Reach Out and Read increases provider knowledge of literacy, prepares kids for school and gets them interested in reading, helps parents remember the conversation about literacy when they get home, and helps less-experienced providers develop additional skills.

Regarding disadvantages of Reach Out and Read, control clinic respondents identified time commitments for providers, funding, extra work, and remembering to give the family the book. Some control clinics were also worried about the implementation process and having adequate staff or resources. When study clinics were asked about program disadvantages, the majority (6/10) of respondents cited funding as the primary issue. The second most-common response was that there were no disadvantages (4/10 clinics). Most concerns identifed by the control clinics were not mentioned by study clinics. However, 3 respondents from the study clinics mentioned logistics, such as stocking books in multiple languages, as a challenge. One study clinic identified fitting in resident training a challenge, but no other clinics with Reach Out and Read mentioned the time commitment or training as a disadvantage. When asked specifically about the implementation process, the majority of study clinics (8/10) said it went smoothly and easily. Table 2 summarizes the major differences in responses to interview questions between the 2 groups.

Analysis of Clinics in the Study Group

Additional analysis revealed that employees of study clinics believe that Reach Out and Read has had a positive impact on many clinic aspects. In general, most said that since implementation, their clinic has started taking a broader approach to literacy promotion (9/10). Many also indicated that not only have they given out more developmentally and culturally appropriate books and increased the amount of time spent promoting early childhood literacy in pediatric visits, but they also have increased literacy promotion and awareness for all patients by creating literacy-rich waiting rooms and exam rooms, opening lending libraries, and holding other literacy events such as book drives.

When we analyzed the 2 groups, no differences were noted in clinic morale, interactions among coworkers, or patient-clinic relationships. However, when the study group was asked directly about what changes they perceived had occurred as a result of the program, they specifically stated that Reach Out and Read had positively affected clinic morale, coworker interactions, and the overall work environment. Most of the study clinics (7/10) said that Reach Out and Read boosted morale to varying degrees, because the program is very exciting for staff and it is fun for the provider to give books to families. Importantly, many study clinics mentioned the positive impact on satisfaction for all clinic employees, including clinical staff, providers, front desk staff, and residents. One provider said, "Everyone's having a ton of fun with this, [the providers] are loving it, the patients are loving it, the staff is loving it."

In addition to boosting clinic morale, most clinics (9/10) indicated that Reach Out and Read has had a positive effect on well-child care and patient-clinician relationships. Nearly all study clinic respondents said that since implementation, they have more consistent literacy discussion and spend more time on anticipatory guidance for literacy during well-child visits (9/10). Many clinicians also said that they use Reach Out and Read as a tool for developmental surveillance and to assess parent-child interactions; family dynamics; the home reading environment; and developmental, motor, and speech delays (5/10). One clinician said, "There's a lot of information verbally and nonverbally that you can get from just putting a book in front of a child."

Overall, Reach Out and Read resulted in only positive changes at the clinics where it was implemented. One physician who participated in the study said, "It's kind of a win-win. I mean, they (the parents and kids) are happy, we're happy. And we're talking about how important (literacy) is for kids." Every individual in the study group said Reach Out and Read is a valuable program at their clinic and many said they would like to see it continue to grow. No clinics reported any negative changes associated with the program. Positive changes seen in clinics since Reach Out and Read implementation are summarized in Box 1; Box 2 summarizes some other notable comments by participants.

DISCUSSION

Qualitative analysis of coded interviews revealed that clinic employees believe that Reach Out and Read has had many positive effects at clinics where it has been implemented, including boosting clinic morale, improving employee satisfaction, and positively affecting patient-clinician relationships.

Limitations

This is a small qualitative study. Clinics in application for the program were chosen for the control group because there may be some fundamental differences between clinics interested in applying for a program like Reach Out and Read and those that are not interested. Clinics that were already motivated to implement the program were utilized in order to more directly examine the changes that occurred in clinics as a result of Reach Out and Read implementation. This does lead to the possibility that the control group may not be representative of all clinics, and the same results may not be seen among a group of clinics with no previous knowledge or interest in the program. In the future, it would be useful to perform a similar study comparing clinics with Reach Out and Read and clinics that have not expressed any interest in the program to see if the results are consistent with the findings of this study. In addition, these were individuals' opinions and may not represent the opinions of all individuals working at a particular clinic, especially since the interviewees were likely to be program advocates.

Another limitation of this study is potential social desirabil-

ity bias. Although the clinics were explicitly informed that everything stated in the interview would remain confidential, there may have been reluctance to give negative feedback, especially given the involvement of the medical director of Reach Out and Read Wisconsin, although he only saw anonymized transcripts. In addition, as many of the clinics interviewed are affiliated with UW Health, results may be biased towards a more positive experience as this organization provides full funding for Reach Out and Read.

Since this was a self-report study, it is possible the key informants did not provide entirely accurate descriptions of their program use. Selection bias was introduced by the research team in the creation of strict exclusion/inclusion requirements for this study. In addition, due to study limitations, only 1 coder analyzed the interview transcripts.

CONCLUSION

Despite the small sample size and limitations, there are many implications for clinics and systems considering Reach Out and Read. First and foremost, these data provide support for current Reach Out and Read programs and can help sustain funding for this valuable community program. In addition, based on this study, clinics considering implementing Reach Out and Read can understand some of the positive changes seen in other clinics after program implementation. This research also may encourage more clinics to apply for Reach Out and Read because it showcases the program's many advantages and very few disadvantages. Finally, large clinic systems that support early childhood literacy promotion may consider offering full-system financial support for Reach Out and Read, knowing that funding is the main barrier to execution in many clinics. They also may consider investing in the program, knowing the benefits of improving employee morale and engaging around the mission to improve child health.

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