

Clinician Experiences With Reach Out and Read: An Exploratory Qualitative Analysis

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ABSTRACT

BACKGROUND: Enhanced literacy and increased vocabulary related to Reach Out and Read (ROR) are well described. Less is known about clinicians' experience with the program.

OBJECTIVE: Understand clinician experiences of implementing ROR.

DESIGN/METHODS: This study was a collaboration between ROR and the Academic Pediatric Association's Continuity Research Network. Participants completed an anonymous online survey to evaluate Literacy Promotion activities and training, and were asked "What has been the most meaningful experience you have encountered with using ROR?" and "Is there anything else you would like to add?" Responses were evaluated by researchers and 4 themes were generated through discussion. All responses were divided and coded by researchers working in pairs and subsequently by all researchers until consensus was reached. Data were organized into themes.

FINDINGS: Responses were provided by 592 (35%) participants. Qualitative analysis revealed benefits to participation in

ROR within 4 themes: 1) Child/Family Impact (60%): "Seeing a child read for the first time" 2) Physician Impact (16%): "I... use the books... to connect with patients." 3) Impact on clinic practice (25%): "I... enjoy modeling for parents and use the books to assess... development" 4) Social Determinants of Health (2%): "The books... are an invaluable resource to our under-served population."

CONCLUSION: Clinicians who implement ROR report positive impact on patients, families, and their own satisfaction and methods in practice. Clinicians value that the program addresses social determinants of health and facilitates developmental surveillance. Further study is needed to understand how clinician's perspectives affect and are affected by their experiences.

KEYWORDS: clinician experience

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WHAT'S NEW

Evidence demonstrates the impact of Reach Out and Read on children and families, but less is known about the effects on clinicians. The qualitative responses analyzed here represent the first national survey to investigate clinicians' experience of participation in Reach Out and Read.

OVER THE LAST 30 years, Reach Out and Read (ROR) has been recognized as an essential component of pediatric primary care.¹ There is significant evidence showing the benefits of this intervention for children and their families, including improved receptive and expressive language scores, increased frequency of reading behaviors, and reduction in maternal depression.^{2–6} Given these benefits, the American Academy of Pediatrics published a statement identifying ROR and other early Literacy

Promotion (LP) strategies as central to the care of children and has included ROR in its *Bright Futures* guidelines for well child care.^{7,8}

Despite the substantial benefits that have been demonstrated for children and families, the impact of ROR on clinics and clinicians has not been well described. Investigations are emerging showing that families feel more positively about their experience with clinicians who utilize ROR⁹ and are more likely to attend well-child visits if their clinicians participate in ROR.¹⁰ In addition, there is evidence that participation in ROR may improve clinic morale and increase clinician satisfaction.^{11,12} Given these findings, it is important to continue investigating the breadth of ROR's influence beyond its impact on child vocabulary and school readiness. As awareness of clinician burnout grows,^{13,14} the need to identify initiatives that support clinician resilience and satisfaction also mounts. We believe that ROR may be one such

initiative, inasmuch as it enhances clinicians' job satisfaction. The purpose of this study is to better understand how pediatric and internal medicine/pediatrics residents and faculty experience and derive meaning from the delivery of ROR in order to generate hypotheses for future investigation.

METHODS

DESIGN/SETTING

We conducted an anonymous, cross-sectional, national survey of pediatric and internal medicine/pediatrics residents and faculty at practices participating in the Academic Pediatric Association's (APA) Continuity Research Network (CORNET) to describe LP training practices within these training programs. CORNET is focused on studying health, health care, and health care disparities among children and their families, particularly the most vulnerable; improving resident education in pediatric continuity practices; and engaging residents in pediatric primary care research. At the time of this study, the network was comprised of 123 pediatric residency programs across the United States (nearly 60% of all accredited pediatric residency programs), representing more than 6000 trainees providing care for over 1 million pediatric patients.¹⁵ This study was approved by the University of Oklahoma Health Sciences Center Institutional Review Board for Human Research.

SURVEY

We developed an anonymous, electronic survey to capture data on: participant and site demographics, LP training, the perceived influence of various training modalities on practice, adherence to the ROR model, other ROR experiences (such as fundraising and volunteering), perceptions regarding early literacy efforts, and knowledge regarding ROR. LP training modalities included completion of online training modules, formal in-person didactics, informal observation, grand rounds, or conferences. The survey was developed by the authors of this study, through a collaboration between the ROR national center, CORNET, ROR champions and pediatric academic researchers to describe LP training experiences and effectiveness, and the LP behaviors of pediatric and internal medicine/pediatrics residents and faculty nationally. As this was the first study of its kind, we did not have a previously published survey that could be used. Study data were collected using REDCap, a secure, web-based software platform hosted at the University of Oklahoma.^{16,17} The survey included 47 questions with branching logic so that participants answered a subset of questions depending on their self-identified role within a given practice (faculty, resident, ROR champion). Faculty participants were able to select multiple roles including resident continuity clinic director, ROR champion, resident continuity clinic preceptor, CORNET contact, or other. For detailed results on the other aspects of this survey, please refer to our previous publication.¹⁸

In addition to the survey questions listed above, researchers decided to add 2 additional questions intended to elicit any responses from participants that were not captured by the survey as written. These questions were: "What has been the most meaningful experience you have encountered with using Reach Out and Read?" and "Is there anything else you would like to add?" Participants responded to these open-ended survey questions through anonymous free text responses. In this report, we will focus on data obtained from these 2 questions included in the survey.

ENROLLMENT

Pediatric residency programs were recruited to participate in this study through announcements posted to the CORNET Listserv, the Academic Pediatric Association Listserv, the ROR Provider Listserv, and via CORNET presentations at regional and national meetings. All CORNET programs were eligible to enroll. Interested programs first answered an online demographic survey where they provided the number of pediatric residents, internal medicine and pediatrics residents, continuity attending physicians, and ROR champions. Instructions were then sent to the main CORNET contact (eg, residency program director or attending physician) at each enrolled program with a link for all faculty and residents to complete the anonymous, online survey through REDCap. Survey data were obtained from May 2018 through September 2018.

ANALYSES OF QUALITATIVE DATA

Emergent coding using grounded theory was utilized by the research team using a holistic perspective and codes were derived from a review of participant responses.¹⁹ All responses were reviewed several times by researchers, both independently and as a group via teleconference. None of the responses were excluded from review given their importance in the hypothesis-generating nature of this study. Survey responses were divided into three groups. Each section of responses was assigned to a pair of researchers and coding was performed independently by individual researchers. Once individual coding was completed, codes were discussed within each pair until agreement was reached through discussion by teleconference. Once agreement in each pair was reached, the entire research team of all 6 researchers came together to determine final consensus through review of each individual code. Disagreements were discussed among the team until consensus was reached. Some responses were coded to reflect more than one of the themes agreed upon by the research team. The responses were then organized into their respective themes.

Four themes emerged organically from an extensive process of generating and refining coding through group discussion of the responses. These themes were 1) Child/Family Impact, 2) Physician Impact, 3) Impact on Clinic Practice, and 4) Social Determinants of Health (SDH).

RESULTS

The survey link was sent to a total of 524 faculty and 2244 residents over the 5-month survey period. We received responses from 473 (90%) faculty and 1216 (54%) residents, representing 42 residency programs (34% of CORNET residency programs at the time of the study). These programs provided resident education at more than 120 individual clinics (42 CORNET residency programs) that were recognized by the ROR National Center as ROR sites. Of the 1689 responses received to the overall survey, 592 (35%) faculty members and residents provided responses to the two qualitative questions. Participant demographics are presented in Table 1. Residents were labeled new interns if they started their residency after June 30, 2018 since they just started their residency and might not have had any experience with ROR yet.

As described above, responses were coded into the 4 themes, which emerged from the coding and consensus process: 1) Child/Family Impact, 2) Physician Impact, 3) Impact on Clinic Practice, and 4) SDH. The distribution of these responses across themes and between resident and faculty participants is shown in Table 2.

Child/Family Impact (Table 3): The majority of comments (60%) from clinicians were coded into the category of Child/Family Impact. Responses in this theme centered on the clinician’s perceptions of a child or family’s experience of receiving a book during their well-child visit and tended to focus on positive reactions generated by participation in ROR. Many of these responses focused on the known benefits of ROR to improve child vocabulary or frequency of reading behavior in the home and how clinicians were able to experience these effects firsthand with their patients through implementation of the program. Additionally, many comments focused on the perceived joy or excitement seen in patients or families receiving the book or on the impact that this program had within a family, specifically that the experience of receiving a book in clinic changed the interaction between a parent and child.

Physician Impact (Table 4): This theme directly addressed the impact of ROR on the clinicians themselves. Responses expressed enjoyment of participating in ROR, focusing on the clinicians’ feeling happier, that they were bonding with their patients, and also that they were able to make a connection with families. A number

Table 1. Demographics of Respondents

	What Has Been the Most Meaningful Experience You Have Encountered With Using Reach Out and Read? Responders n (%)	Is There Anything Else You Would Like to Add? If So, Please Feel Free to Type Your Comments in the Box Provided. Responders n (%)
Faculty	219 (46.30)	69 (14.59)
Residents	314 (25.82)	51 (4.19)
New intern	59 (23.41)	15 (5.95)
Intern	33 (36.67)	2 (2.22)
2nd year	90 (22.84)	12 (3.05)
3rd year	116 (27.68)	18 (4.30)
Urban/rural status of program	n	(%)
Urban	54	(79.4)
Suburban	9	(13.2)
Rural	5	(7.4)

Table 2. Distribution of Responses Across Themes

Theme	Responses n (%)
Child/Family Impact	356 (60%)*
	Faculty 150
	Resident 205
	Unknown 1
Physician Impact	95 (16%)*
	Faculty 42
	Resident 53
Impact on Clinic Practice	150 (25%)*
	Faculty 59
	Resident 88
	Unknown 3
Social Determinants of Health	17 (2%)*
	Faculty 12
	Resident 5

*Some responses were coded into more than one theme, which accounts for the total of 103%.

of comments described the clinician learning more about their patients or families by utilizing ROR strategies, in particular learning more about a family’s own experience or perception of the importance of reading with children. Overall, responses in this theme centered on an increase in a clinician’s enjoyment, feeling of connection with patients and families, and an increase in meaning associated with their work.

Impact on Clinic Practice (Table 5): Responses in this theme addressed either changes or enhancements to a clinician’s own clinical practice or the ways in which participation in ROR impacted overall clinic culture. In the first type of response, clinicians described ways they have modified their own practice to incorporate ROR into the well-child visit consistently, including modeling shared reading or using this intervention to enhance developmental screening practices. Similarly to the first theme of

Table 3. Examples of Child/Family Impact

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- 1) "Kids are always so joyful when they receive these books and I have had lots of families tell me that their kids are very excited to read the books provided by their doctors. I have personally seen it increase reading frequency and ability in my patients." – third-year resident
 - 2) "Watching a parent and child duo enjoying time together looking at and reading the book I just gave them." – Faculty
 - 3) "Watching children light up with new books. Empowering parents with the knowledge of how shared reading helps. Watching parents become excited about reading/introducing reading to their children." – third-year resident
 - 4) "Some patients and families are truly happy to receive a book. It seems to make their experience at the doctor's just a little better." – Faculty
 - 5) "Time after time, I've had parents come back to me to tell me that they have been reading their ROR books to their kids and that they had not known how much their children would enjoy that and in fact how much they, as parents, would enjoy that." – Faculty
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Table 4. Examples of Physician Impact

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- 1) "I enjoy seeing the smiles on the children's and parent's faces when we give the book." – Faculty
 - 2) "It is my favorite part of the WCV." – Faculty
 - 3) "I have been able to use the books provided as a way to connect with patients and their families." – third-year resident
 - 4) "Bonding with patients when reading with them/pointing at pictures." – third-year resident
 - 5) "I constantly enjoy observing patients interact with the books and use this as a developmental tool. I also enjoy encouraging parents in the ways children of varying ages will use books and learn from them." – third-year resident
 - 6) "I had a mom say that she didn't realize how important it was to start regularly reading to her son, and that was eye opening to me because I always thought that was basic knowledge." – second-year resident
 - 7) "I always find it encouraging to witness parents who are inspired by the education provided regarding reading to infants and their development." – third-year resident
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Table 5. Examples of Impact on Clinic Practice

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- 1) "Engaging and making reading exciting for my patients! I also enjoy modeling for parents and use the books to assess my patients' development." – first-year resident
 - 2) "Learning how to use the books to assess[s] developmental status. I've gotten better exams with books than the questionnaires that we have parents fill out. Watching the parents sit with their child and read shows me part of their relationship and interactions." – first-year resident
 - 3) "Helping a child who is verbally delayed catch up through ROR." – fourth-year med-peds resident
 - 4) "Being able to create a culture of literacy in our clinic where patients enjoy receiving a book as part of their care." – Faculty
 - 5) "We have book character reading events where we dress up, read and celebrate literacy promotion as a clinic family. We have nurse champions as well. We attend literacy promotion conferences as group." – Faculty
 - 6) "Funding is a challenge. We used to have relatively easy access to adequate number of books but the grants have fallen off and the University coordinator has changed their focus on helping the individual clinic sites." – Faculty
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Child/Family Impact, this group of responses revealed a number of examples of direct observation in which clinicians were able to witness the impact of ROR on the development of their patients. Additionally, a number of responses described the changes that occurred in clinic culture as a result of participation in ROR including creating a culture of literacy and an improved sense of connection among clinicians and clinic staff.

In this theme, we also coded responses that addressed challenges clinics faced in implementation of the program. These most often included a lack of resources to buy books and a lack of time to implement the intervention effectively with high fidelity.

SDH (Table 6): The final theme identified in our analysis addressed disparities in access to books in patients' homes and an enhanced awareness of these disparities on the part of the clinician. While this theme held the fewest number of unique responses, the responses that were generated raised potentially important questions. The majority of these highlighted the importance of ROR as a resource for underserved families and many responses in this theme connected deeply with the interpretation of ROR as a book provision program to increase the number of books in a child's home. A few responses described a clinician's discovery of the widespread disparity in access to books or limited frequency

Table 6. Examples of Social Determinants of Health

- 1) "The books provided are an invaluable resource to our underserved population. At times there are no books in the home besides the ones we provide the family during clinic visits. I cannot imagine not having this resource for our clinic population." – Faculty
- 2) "I was horrified to find a child who was two or three years old to whom I presented a book only to hear her mother say it was her first book ever. I was glad that I was able to give it to her, though." – second-year resident
- 3) "Giving a book to a family that does not have the resources to buy them." – third-year resident

of reading in the homes of under-resourced families. In general, this second category of responses expressed strong emotions experienced by the clinician at discovering these disparities.

DISCUSSION

The qualitative responses analyzed in this study represent the first national survey to describe clinicians' sense of meaning derived from participation in ROR. While the original aim of this survey was to describe variations in and the effect of LP training in pediatric and internal medicine pediatric residency programs, we received a large number of responses solicited by free text questions that uncovered important information about the clinician experience of participating in ROR. In that ROR's impact is elevated by the support and guidance given to families by clinicians along with the distribution of book,²⁰ it is critical to understand how both training and the clinicians' experience of ROR lead to delivery of the model with fidelity to ensure optimal impact of the intervention as it was designed.

Analysis of these responses, using hypothesis generating qualitative methods, demonstrated an overwhelmingly positive response to participation in ROR, with descriptions noting improvements in patient outcomes, physician experience, clinic culture, and awareness of SDH. Taken together, these responses signal that there are benefits to implementation of ROR not only as a valuable intervention for children and their families, but as a tool to enhance a clinician's experience while delivering pediatric primary care.

ROR is a well-established, evidence-based intervention known to improve outcomes for children in the realm of vocabulary growth and school readiness.^{4,21–23} Clinician responses to the free text questions at the end of the survey support this evidence, as several participants noted that they were able to see the improvement in a child's language development and early reading skills after receiving this intervention. This demonstrates both anecdotal evidence showing the overall impact of ROR on children and clinician awareness of the evidence base supporting the implementation of this program in pediatric primary care. Responses within the theme of Child/Family Impact clearly demonstrate that the purpose of ROR to support child development and early LP beyond book distribution are well understood by this group of participants.

Less understood is the effect this program has at the individual clinician level. Understanding what contributes to clinician experience and satisfaction is increasingly

important as levels of burnout rise nationally among clinicians, including those in pediatrics, leading to significant turnover in the workforce.^{13,14,24,25} Given the troubling trends in this area, increasing clinician satisfaction has become a priority for health systems across the country.^{24,26} One significant contributor to burnout is erosion of meaning from one's work,²⁷ and the findings from this survey suggest that clinicians who participate in ROR derive a significant amount of meaning from delivering this intervention in the primary care setting. According to survey responses, meaning was derived from a variety of patient interactions including seeing the direct impact of the program on a patient's development and perceiving joy in the faces of patients and their caregivers, and also in personal feelings of joy and happiness experienced by the clinician. Survey responses also support emerging evidence suggesting that overall clinic culture may be positively impacted by participation in the ROR program.^{11,12} These findings suggest that participation in ROR enhances and contributes to clinician experience in delivering pediatric primary care both through individual and clinic-wide avenues, and thus could be considered a promising strategy for health systems seeking to decrease clinician burnout and increase job satisfaction.

As mentioned above, the effect of participation in ROR on the culture of a clinic was well represented in participant responses. Further investigation into the specific ways by which ROR creates or changes culture are necessary and should include team members beyond clinicians including nurses and administrative staff who may be involved with operations of the program at different levels. In addition to positive experiences, however, responses in this theme signaled challenges and barriers that clinicians face in implementing ROR including lack of financial, temporal, and administrative resources. These less positive responses were an important finding of this study and warrant additional investigation to uncover strategies that allow for pediatric practices to implement this program with high fidelity.

An unexpected theme that emerged from participants was clinicians' recognition of the direct impact of SDH on their patients and the potential for ROR to reduce some of the resource gaps noted in patients affected by social and economic disparities. This impact is at the core of ROR's founding mission and clearly resonated with clinicians' experience of the program. A wealth of evidence shows the undeniable impact of SDH on the physical and mental well-being of patients across their life.^{28,29} Given the significance of these findings, it is critical for SDH to be included in physician education. In fact, the

Accreditation Council of Graduate Medical Education has made provisions for SDH to be incorporated into residency training across a number of disciplines.^{30–32} Participants in this study noted how implementation of ROR initiated conversations about resources in the home or, in many cases, the lack thereof. Participants expressed uncovering patient resource gaps (ie, realizing patients do not have books in their home) and feeling empowered to help families by implementing ROR not only as a book provision program, but as an educational touchstone for families learning the importance of reading at home to improve their child's early literacy skills and development. These comments suggest that implementation of ROR may serve as an effective and powerful tool to educate clinicians about the importance and impact of SDH on children and their families in addition to their prevalence. While working with underserved families can increase clinician stress and heighten the risk of burnout,³³ clinicians who feel that they can make a difference for their patients have been shown to be less prone to burnout.^{34,35} Responses in this study demonstrate enhanced ability to witness the effects of SDH on patient outcomes and the capacity for clinicians to find additional meaning by delivering ROR in part, as an avenue for closing the resource gap among their patients and families. These experiences further contribute to the impact that implementation of this program may have on enhancing a clinician's experience and reducing burnout.

LIMITATIONS

There are a number of limitations to this study. First, data from this study were initially collected with the intention of understanding LP training and practices, and the association between training modalities and these practices at a national level. As such, the phrasing of the free text questions at the end of the survey was not targeted specifically at assessing clinician experience and clinic impact of implementation of ROR. Additionally, these questions were phrased in a way that may have unintentionally elicited more positive responses. Nevertheless, we received a large number of responses given that none was required, indicating that clinicians felt motivated to provide additional information not solicited by our survey. While these responses may represent a self-selected group of clinicians, they signal important themes and perspectives that warrant further in-depth investigation. For the purposes of this qualitative analysis, potential bias does not impact the quality of the evidence, which seeks to uncover areas of future study and gain greater in-depth understanding of the study question. Additionally, these data were collected via anonymous survey without the ability to ask follow-up questions, which could have led richer and more in-depth exploration of clinician experience and the themes discussed in our analysis. Third, a common link for the survey was used, which may have permitted participants to respond more than once; using individual survey links would have avoided this problem. Lastly, this was a study of pediatric continuity clinic

faculty and residents associated with pediatric residency training programs and may not apply to other populations such as those in private practice and other nonacademic clinical sites. Similar surveys directed to these health professionals would be useful.

CONCLUSION

In this first national survey of its kind, respondents offered a glimpse into clinicians' overwhelmingly positive experiences with ROR. They expressed that the program has a significant impact on their pediatric patients, their patients' families, and on their own satisfaction and skills in practice. In addition, they value the program's capacity to address SDH and facilitate developmental surveillance of their patients. This enhanced experience within the delivery of pediatric patient care may contribute to clinicians finding additional meaning in their work, which has been shown to be a factor in reducing physician burnout. Further study is needed to more fully understand how ROR may affect and be affected by a clinician's personal experiences, including their level of training and identified role within ROR. These investigations should include acquisition of additional qualitative data by using focus groups with expanded interview guides to allow for a broader exploration of clinician experience with ROR.

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