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PARENTS' EXPERIENCES WITH PEDIATRIC CARE AT RETAIL CLINICS

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Abstract

Objective—To describe the rationale and experiences of families with a pediatrician who also use retail clinics (RCs) for pediatric care.

Design—Cross-sectional study

Setting—19 pediatric practices in a Midwestern practice-based research network

Exposure—Self-administered paper survey

Participants—Parents attending the pediatrician's office

Outcome Measures—Parents' experience with RC care for their children

Results—1484 parents (92% response) completed the survey. Parents (23%) who used RC for pediatric care were more likely to report RC care for themselves (OR 7.79, 95% CI, 5.13 to 11.84), have > 1 child (OR 2.16, 95%CI 1.55 to 3.02), and be older (OR 1.05, 95%CI 1.03 to 1.08). Seventy-four percent first considered going to the pediatrician but reported they chose the RC because the RC had more convenient hours (37%), no office appointment was available (25%), they did not want to bother the pediatrician after hours (15%), or because the problem was not serious enough (13%). Forty-six percent of RC visits occurred between 8am and 4pm on weekdays or 8am and noon on the weekend. Most commonly, visits were reportedly for acute upper respiratory illnesses (34% sore throat, 26% ear infection, 19% colds or flu) and for physicals

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(13%). While 7% recalled the RC indicating they would inform the pediatrician of the visit, only 42% informed the pediatrician themselves.

Conclusions—Parents with established relationships with a pediatrician most commonly took their children to RCs for care because access was convenient. Almost half the visits occurred when the pediatricians' offices were likely open.

Keywords

Retail clinic; practice-based research network

INTRODUCTION

Even parents whose children have a primary care pediatrician (PCP) that they know and trust may not always feel they have convenient and timely access to their care provider. Retail clinics (RCs) have proliferated in response to patients' demand for convenient healthcare access for minor illnesses and are predicted to number more than 6,000 nationwide by 2013.[1]

Most RCs sit within high-traffic retail stores such as Walgreens and CVS and are staffed by non-pediatric nurse practitioners and physician assistants who provide care for patients who are 18 months of age and older.[2] Treatment for common minor illnesses such as ear and throat infections is provided and vaccinations and school or camp physicals are offered.[1] Walk-in appointments are available seven days a week including evenings, wait time is short, and prices are fixed and transparent.[3,4] Lower production costs have resulted in lower prices for a visit than the emergency department (ED), urgent care center or physician's office and many health insurance plans including Medicaid will pay for RC visits in full or in part.[5,6]

While many patients and health insurance companies positively endorse RCs,[4] professional organizations including the American Academy of Pediatrics (AAP) and the American Academy of Family Physicians (AAFP) have raised concerns about the quality of care provided at RCs and the impact of fragmentation of care on patients' overall health.[7,8] Recent evidence suggests that RCs may impact the continuity of care in the medical home[9] and that use of RCs by families with children is increasing.[10] However the literature concerning RC use is scant, and comprised mainly of review of administrative databases, most commonly from Minnesota the birthplace of RCs.[1,5,11–15] Few studies have focused exclusively on pediatric care.[16,17] The objectives of this study were to better understand when and why parents who have an established relationship with a primary care pediatrician (PCP) use RCs for pediatric care, to describe parent's perception of the care received, and how information about RC visits is shared with the child's PCP.

DESIGN AND METHODS

We conducted a survey in the waiting rooms of pediatric offices to assess parents' attitudes towards and experiences with RC care. Most parents finished the survey prior to seeing their

PCP. The study was approved by the Washington University Human Research Protection Office.

Survey Tool

The survey was developed by the authors and refined after pilot testing with six parents. Each survey took approximately five minutes to complete and had a Flesch-Kincaid reading level of 4.5. The description of RCs provided to the parent was: "In St. Louis, retail clinics sit within Walgreens as Take Care Clinics."

All respondents provided demographic information, indicated if they had ever sought care at an RC for themselves or their children, and whether their pediatrician had ever advised against taking their children to an RC for care of a minor illness. Those who had not used an RC for their children indicated their reasons for not doing so by selecting options from a list. Those who had used an RC answered questions about the most recent RC visit for one of their children. These parents selected from a list of options to indicate why they had not gone to the pediatrician on this occasion, the reason for the RC visit, and how they had learned about RCs in the St. Louis area. They provided details about the clinic visit process (day, time of day, wait time, payment method) and if their child received a prescription for an antibiotic. Parents indicated if and where they were advised to get follow-up care, if they received any follow-up communication from the RC, whether or not they informed their pediatrician about the visit, if the RC had indicated they would inform the PCP directly about the child's visit, and if they would use RCs in the future. Satisfaction with the RC visit was evaluated using a 4-point categorical scale (very satisfied to very dissatisfied).

Enrollment of Study Participants

All pediatricians in our practice-based research network (PBRN), Washington University Pediatric and Adolescent Ambulatory Research Consortium (WU PAARC), were asked if they would allow a research assistant (RA) in their office for approximately one week to recruit study subjects. Eligible participants were the parents/legal guardians of children aged 18 months to 18 years. Parents were approached by the RA in the waiting room and invited to participate. Parents were not approached if they were immediately called to see the physician, were preoccupied with an administrative task, or if the RA was busy with another parent. Unaccompanied minors and pregnant women with no children were ineligible as were parents who could not speak English or had previously completed the survey.

Statistical Analysis

Summary statistics are presented as mean and standard deviation or median and range or interquartile range (IQR) for continuous variables, and percentage for categorical variables. We used the Pearson Chi-square or Fisher's exact test to compare responses among those who did and did not use RCs for pediatric care. Race was dichotomized as white vs. all other races; health insurance as Medicaid vs. other insurance; respondents' educational attainment as associates degree or higher vs. less education; and family income as < $60,000/year vs. ≥ $60,000/year. Logistic regression was used to identify characteristics of families who used RCs for pediatric care, adjusting for clustering of parents within practices. Factors found to be significant ($p \leq 0.05$) in the univariate analyses were included in the regression model

including: parental RC care, ≥ 1 child, white race, parent age in years, income ≥ $60,000, and Medicaid insurance. The odds ratios (OR) with the 95% confidence interval (CI) are reported. A probability of $p < 0.05$ (two-tailed) was used to establish statistical significance.

RESULTS

Study Participants

Participants were recruited from 19 primary care pediatric practices throughout the St. Louis area (16 Missouri, 3 Illinois; 3 solo practitioners, 16 group practices). These practices were typically open from 8:30am to 5pm and for 2 to 4 hours on Saturday mornings. The RA was at each practice for a median of 3.5 days (range 2–5 days) from December 12, 2011 to April 20, 2012. Of 2,206 parents who were invited to participate, 136 declined the eligibility screen and 2,070 were assessed for eligibility (Figure 1). Of these, 585 were ineligible and one declined to participate after eligibility assessment. A total of 1484 completed the survey (median 89 surveys/practice, range, 22 to 144); the minimal response rate was 92%. Overall, 85% of respondents were female, 71% worked outside the home at least part-time, 25% were African American, and 69% had an associate's degree or higher education (Table 1).

Retail Clinic Use

Overall, 37% of respondents had used an RC for healthcare for themselves (range among practices 21% to 49%; median 38%) and 23% had done so for pediatric care (range among practices 11% to 39%; median 24%). Of those who used an RC for pediatric care, 48% had done so more than once in the prior year (14% 1–2 times; 1% 3–5 times; 33% >5times).

Characteristics of respondents who reported they had or had not used a RC for their children are compared in Table 1. In the logistic regression model, parents who used RC for pediatric care were more likely to report use of an RC for themselves (OR 7.79, 95% CI, 5.13 to 11.84), have more than one child (OR 2.16, 95%CI 1.55 to 3.02), and be older (OR 1.05, 95%CI 1.03 to 1.08) (Table 2).

Of the 344 parents who had used RCs for care for their children 74% had considered going to their pediatrician first. The RC was selected as it offered more convenient hours (37%), no appointment was available at the pediatrician's office (25%), the parent did not want to bother the pediatrician after hours (15%), or did not think the problem was serious enough to bother the pediatrician (13%). If the RC had not been available at the time of the illness parents indicated they would have gone to the doctor's office (50%), urgent care center (30%), or the ED (14%) for care or not sought care at all (6%). Parents learned about RCs when they noticed the clinic in the store (52%), through in-store advertising (36%), from friends or family (24%), and through television advertising (21%). Few learned about RCs from their insurance company (2%).

The most common reason for not using an RC for pediatric care was the parents' preference for care by the pediatrician (61%) (Table 3). Few (2%) parents indicated their pediatrician had advised them against taking their children to RCs for care.

Parents' Experience at the Retail Clinic

The median age for the child who was most recently seen at the RC was 8 years (range 1.5 to 18 years). Clinic visits occurred on weekdays (50%) and weekends or holidays (50%). During the week, 55% of RC visits occurred between 8am and 4pm, 28% between 4pm and 6pm and 17% between 6pm and 8pm (Table 4). Parents reported wait times were: <30min (57%); 30–60 minutes (32%); or >60 minutes (11%). Health insurance covered all (36%) or part (48%) of the cost of the visit, while 17% paid out of pocket in full. Of those with Medicaid insurance, 75% reported the cost of the RC visit was covered in full (14% in part, 12% paid out of pocket in full). Five percent of parents received a voucher or coupon for purchases in the retail store (median value $5, range $2–$10).

Reason for the visit and care received—Most commonly, visits were for acute upper respiratory illnesses including sore throat (34%), ear infection (26%), and colds or flu (19%) (Table 5). By parent report, antibiotic prescriptions were received by 85% of children with an ear infection, 79% of those with a sore throat, and 69% of those with a cold or flu illness. Of the 118 children presenting for care of a sore throat, 81% (96) had a throat swab taken (71% reported by the parent as positive, 22% negative, 7% don't know). Antibiotic prescriptions were received by 29% (6/21) who reported a negative throat swab result. Of the eight children presenting for asthma care, reported treatment included albuterol (n=5), a prescription for an antibiotic (n=4), an oral corticosteroid (n=3), and a controller medication (n=1). Of the eight children who presented for care of allergies, six reported an antibiotic prescription.

Thirty-two children were taken to the RC as their parent thought their health-related problem was not serious enough to bother the PCP. Among these children the reason for the visit included sore throat (n=12), ear infection (n=9), cold (n=4), flu shot (n=3), physical (n=3), and allergies (n=1). Among the children seen for an upper respiratory tract infection, 69% (18/26) reported receipt of an antibiotic prescription.

Follow-up communication—Forty percent of parents reported follow-up communication from the RC (35% phone call, 3% email, 2% other). The RC recommended follow-up care with the pediatrician (43%), the RC (1%) or the ED (1%). Most (62%) parents did not recall the RC indicating they would notify their PCP about the clinic visit (31% were unsure, 7% thought the RC would notify the PCP), and 33% were advised to tell their PCP about the clinic visit (23% unsure, 43% not advised). Only 42% of parents who had sought care at the RC informed their pediatrician about the visit (12% unsure, 47% did not inform). Parents were more likely to inform the PCP if advised to do so by the RC (67% vs. 26%, $p<0.001$). Reasons parents selected to indicate why they did not inform the PCP about the RC visit were: they did not think the visit was important (38%); they had not seen the doctor since the RC visit (34%); they had forgotten to tell them (19%), or they thought the clinic would do so (3%). No-one selected the response option "I thought the doctor might not approve."

Future Use of RCs for Pediatric Care

Most parents were satisfied (62%) or very satisfied (33%) with the care their child received at the RC and 53% indicated they would use RCs in the future for pediatric care (39% maybe, 8% would not).

COMMENT

In our study population with an established relationship with a pediatrician, about one in four families had used an RC for pediatric care at least once, and many reported multiple visits, double that of prior estimates (10% for children and 19% for adults),[1,16] likely reflecting increasing utilization of RCs by families with children.[10] Most visits were reportedly for care of acute upper respiratory illnesses and satisfaction with the care was high, similar findings to other studies.[1,9,17,18]. RC visits commonly occurred when the pediatrician's office was open, with parents choosing to go to the RC for reasons of convenience.[3,10] Many parents first considered going to the pediatrician for care, but were unable or believed they would be unable to get a convenient, timely appointment for an office visit, or felt the illness was not severe enough to warrant an office visit or bother their PCP after hours. RC use was more likely if the parent had received RC care themselves, suggesting familiarity and satisfaction with this mode of care delivery. Similar to previous studies,[5,14,19] RC users were more likely than non-users to be older, white, more educated and have a higher income, possibly representing a group more likely to seek out convenient access to care for minor illnesses.

Virtually no parents reported their pediatrician had raised the topic of RC care with them and fewer than half volunteered information about their RC visit to the PCP. Effective communication about care is essential to avoid duplication of services and ensure safety and effective care coordination.[20] This will become even more important if RCs assume a more active role in chronic disease management.[21] In settings where RCs are affiliated with a hospital system, an integrated electronic medical record can facilitate communication between the RC and the child's medical home within 24 hours of a clinic visit,[6,20] as recommended by the AAP.[8] However, the majority of RCs are independently owned,[22] and in this setting PCPs rely more on parents to inform them about RC visits. Our data suggest that parents would be more likely to report an RC visit when recommended to do so by the RC. The pediatrician could improve communication about RC use by routinely asking about RC visits and educating families why it is important that the child's medical home is aware of any healthcare received by the child.

Physicians have voiced concerns about the quality of care at RCs.[7,8] Our data raise concern about the frequency of unnecessary antibiotic prescriptions in local RCs although a prior study of claims data from a large health plan found no difference in antibiotic prescriptions for pharyngitis for 2 to 64 year old patients seen at RCs, physician offices, urgent care clinics and EDs.[5] In our study population, contrary to national recommendations,[23,24] receipt of an antibiotic prescription was reported by two-thirds of those who sought care for non-specific upper respiratory infections and a quarter of those with a negative throat swab. It is important to note these data are self-reported and cannot be confirmed by review of charts or pharmacy records. We do not have data to determine antibiotic prescribing rates for

local PCPs for these diagnoses, but the reported RC antibiotic prescribing rates were much higher than in other primary care settings[25] and needs further investigation. Upper respiratory infections and pharyngitis account for up to half of pediatric RC visits,[1] and the potential harm from widespread overuse of antibiotics for these common illnesses could be considerable.

Our study provides data about RC use for pediatric care by families attending the office of their pediatrician, but several study limitations should be noted. The data are self-reported and may not accurately represent care provided in RCs. Several factors may have influenced parents' responses including recall bias and confusion between RCs with Urgent Care Centers. It is also possible that parents responses were influenced by the survey being conducted in the office of their pediatrician, even though the survey was anonymous and distributed by study staff rather than office personnel, Although the study sample is large and the participation rate was high, subjects were from the St. Louis metropolitan area and RCs are more common in urban areas.[6] Thus, study findings may not be generalizable to other communities. Future studies should confirm our findings using objective data from different communities.

Conclusion

Many parents with established relationships with a pediatrician use RCs for themselves and for their children, with some repeatedly choosing the RC over an office visit. These parents believe RCs provide better access to timely care at hours convenient to the family's schedule. Pediatricians can address concerns about quality of care, duplication of services and disrupted care coordination by working to optimize communication with their patients regarding appropriate management of acute minor illnesses and the role of RCs, and with RCs themselves. They also will need to directly address parents' need for convenient access to care.

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Study data were collected and managed using REDCap electronic data capture tools hosted at Washington University. REDCap (Research Electronic Data Capture) is a secure, web-based application designed to support data capture for research studies, providing: 1) an intuitive interface for validated data entry; 2) audit trails for tracking data manipulation and export procedures; 3) automated export procedures for seamless data downloads to common statistical packages; and 4) procedures for importing data from external sources.[26]

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Abbreviations

AAP	American Academy of Pediatrics
AAFP	American Academy of Family Physicians
CI	confidence interval

ED	Emergency Department
IQR	Interquartile Range
NIH	National Institutes of Health
OR	odds ratio
PBRN	Practice-based research network
PCP	primary care physician
RA	Research Assistant
RC	Retail Clinic
SD	Standard deviation
WU PAARC	Washington University Pediatric and Adolescent Ambulatory Research Consortium

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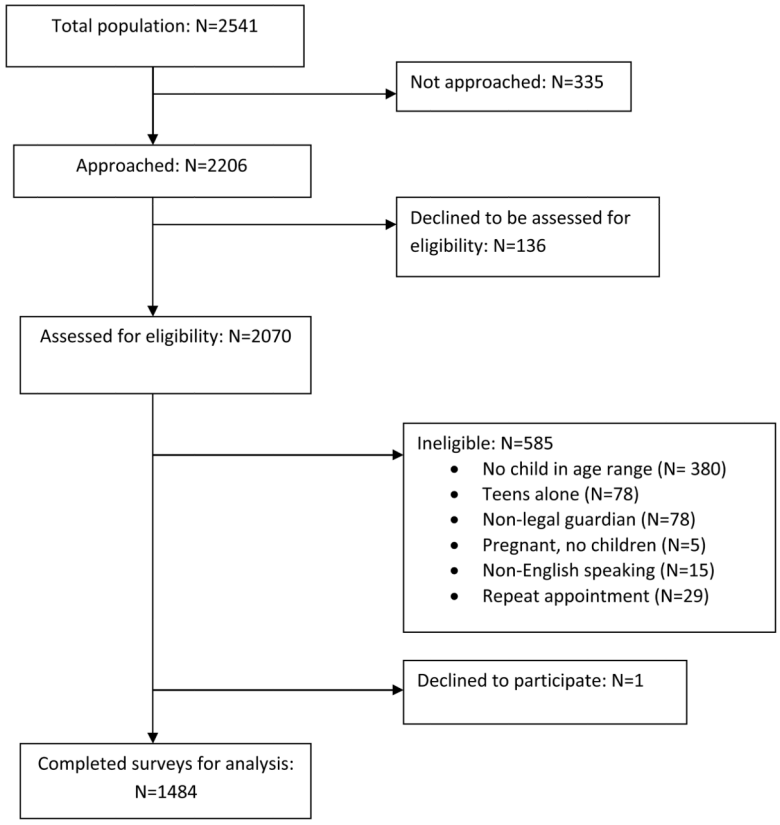

FIGURE 1.
Subject Recruitment

Table 1

Comparison of Parent and Family Characteristics by Reported Use of Retail Clinic for Pediatric Healthcare (N=1484)

Parent and Family Characteristics	RC used for child's healthcare N=344	RC not used for child's healthcare N=1140	*P* Value
Parent's age in years (mean, sd)	37.9 (7.7)	35.6 (7.7)	<0.001
White race (N, %)	272 (80%)	757 (66%)	<0.001
Hispanic (N, %)	4 (1%)	19 (2%)	0.52
Associates degree or higher (N, %)	245 (72%)	777 (69%)	0.20
Does not work outside the home (N, %)	93 (28%)	340 (30%)	0.35
Years lived in St. Louis area (mean, sd)	27.5 (14.3)	25.3 (13.6)	0.0088
Years with this practice (mean, sd)	7.9 (5.3)	6.7 (5.4)	0.0005
Two-parent home (N, %)	271 (79%)	900 (79%)	0.95
Only one child at home (N, %)	48 (14%)	276 (24%)	<0.001
Household income ≥ $60,000 (N, %)	196 (60%)	561 (52%)	0.013
Medicaid Insurance for the Child (N, %)	64 (19%)	307 (28%)	0.002
Parent reported RC use for themself (N, %)	249 (73%)	306 (27%)	<0.001

sd=standard deviation; RC retail clinic

Table 2

Logistic Regression Analysis Examining Factors That Influence Retail Clinic Use For Pediatric Care

	Odds Ratio	95% Confidence Interval	P-value
Parent used RC for care themself	7.79	5.13 to 11.84	<0.001
≥ 1 child	2.16	1.55 to 3.02	<0.001
Parent age (years)	1.05	1.03 to 1.08	<0.001
White race	1.38	0.95 to 2.02	0.093
Income ≥ $60,000	0.76	0.53 to 1.10	0.15
Medicaid insurance	0.98	0.57 to 1.67	0.94

RC, Retail clinic.

The analysis was adjusted for clustering by practice. 1355 observations were included in the model and the Pseudo R^2 = 0.18.

TABLE 3

Reasons Parents Did Not Use Retail Clinics For Their Children

	N (%)*
Prefer to see the pediatrician	692 (61%)
Concern about the quality of care at RC	212 (19%)
Have not needed care for minor illnesses	203 (18%)
Didn't know RCs provided care for children	115 (10%)
Not aware of RCs	110 (10%)
No RC close by	37 (3%)
Child is too young	23 (2%)

Abbreviations: RC Retail clinic

*Percentages sum to >100% as parents could select more than one reason from the list of options.

TABLE 4

Retail Clinic Visits By Time Of Day For Weekday And Weekend Visits*

	Monday – Friday N=157 N (%)	Saturday/Sunday N=152 N (%)
8am – noon	46 (29%)	55 (38%)
Noon – 4pm	40 (26%)	56 (39%)
4pm – 6pm	44 (28%)	28 (20%)
6pm – 8pm	26 (17%)	4 (3%)

*Six parents who reported RC use on a holiday were excluded

TABLE 5

Reasons Parents Reported For Seeking Pediatric Care at a Retail Clinic (N=344)

	N (%)*
Sore throat	118 (34%)
Ear infection	90 (26%)
Cold/flu	66 (19%)
Physical	45 (13%)
Flu shot	30 (9%)
Rash	14 (4%)
Allergies	8 (2%)
Asthma care	8 (2%)
Cut or wound	8 (2%)
Pink eye	6 (2%)
Other immunizations	4 (1%)
Sprain/strain	2 (1%)
Bladder or urinary tract infection	1 (<1%)
Burn	0 (0)

* Sums to >100% as parents could select more than one reason