



Objective

To investigate factors that could influence enrollment in My Dental Portal at the University of Iowa Dental Clinic.

Benefits of using a patient portal include:

- Reduced anxiety, improved doctor-patient relationship, and increased engagement by the patient (1)
- Increased perception of patient-centered care (2)
- Potentially reduce errors for children receiving care due to parent involvement (3)
- The goal of using the on-line portal is to increased efficiency in new patient appointments due to the fact that health histories and consent forms for the clinic can be completed on-line and prior to appointments (4)

Background

The University of Iowa introduced My Dental Portal in April of 2020

- Automatic emails with information to the online portal began for new patiens in the Admissions Department September 2021
- Automatic emails with information to the online portal began for new Pediatric Department patients in January 2022
- The distribution of automatic emails was dependent on obtaining email addresses from patients or their parents when the initial appointment was made

Methodology

- IRB approval of this study was obtained in July 2022
- Dental charts of new users to the patient portal from January 1, 2022 – May 31, 2022 were reviewed from Pediatric Dentistry and the Admissions Clinics
- Age, gender, size of home community, distance to the college, and insurance status of the patient were collected
- Descriptive stats with bivariate analysis were completed

Results

- 121 charts completed the on-line patient portal
 - 87 from new Admissions patients
 - 34 new Pediatric patients
- Demographic Information
 - Almost 2/3 were enrolled in Medicaid
 - 80% were referred
 - Average distance traveled was 81 miles
 - Population of communities that patients came from ranged between 304-214,133
- Consent form information
 - 78% of Admissions patients completed all electronic consent forms
 - 91.2% of Pediatric patients completed all electronic consent forms.
- None of the variables was significant in changing the predicted probability of a patient completing their consents or histories through the portal

Table 1. Demographics Characteristics of Study Participants (N=121)

	Number of Participants	Percent
Gender of Patients		
Female	73	60.3%
Male	48	39.7%
Clinic		
Adult Admissions	87	71.9%
Pediatrics	34	28.1%
Insurance		
Private insurance	26	21.5%
Self-Pay	19	15.7%
Medicaid	76	62.8%
Referral		
Yes	39	32.2%
No	82	67.8%
Referral Provider		
Community Health Center	13	33.3%
Medical Center	2	5.1%
Private Practice	24	61.5%
Next Visit		
D3 Student Clinics	50	41.3%
Family Dentistry D4 Student Clinic	30	24.8%
Other	9	7.4%
Pediatric Dentistry	32	26.4%
	Mean (SD)	Range
Age (in years)	31.025 (20.921)	3-74
Distance (in miles)	81.091 (162.978)	0-1396
Community Size	50261.744 (54634.257)	304-214,133

Table 2.Online Forms Completed (N=121)

	Number of Participants	Percent
General Care Consent		
No	15	12.4%
Yes	106	87.6%
Student Clinic Consent		
No	11	9.1%
Yes	110	90.9%
PHI (Protected Health Information) Consent		
No	19	15.7%
Yes	102	84.3%
E-Visit Consent (for teledentistry appointments)		
No Consent Needed for Pedo E-Visit	16	47.1%
Verbal Consent for Pedo E-Visit	2	5.9%
Yes	16	47.1%
Email Consent		
No	13	10.7%
Yes	108	89.3%
Medical History		
Completed	110	90.9%
Not completed	11	9.1%
Dental History		
Completed	100	82.6%
Not completed	21	17.4%
History Completed By		
Mother	31	91.2%
Father	2	5.9%
Other	1	2.9%

Table 3. Clinic type by Dental and Medical Histories Completed

	Adult Admissions (N=87)	Pediatrics (N=28)	Total (N=121)	p Value
Histories Completed				0.175
Both Completed	69 (79.3%)	30 (88.2%)	99 (81.8%)	
Just Dental	0 (0.0%)	1 (2.9%)	1 (0.8%)	
Just Medical	9 (10.3%)	2 (5.9%)	11 (9.1%)	
Neither Completed	9 (10.3%)	1 (2.9%)	10 (8.3%)	

Table 4. Clinic Type By Which Consents Given (Excluding E-Visit)

	Adult Admissions (N=87)	Pediatrics (N=28)	Total (N=121)	p Value
Consents				0.536
All	68 (78.2%)	31 (91.2%)	99 (81.8%)	
Email	1 (1.1%)	0 (0.0%)	1 (0.8%)	
Gen	1 (1.1%)	0 (0.0%)	1 (0.8%)	
Gen, PHI, Email	0 (0.0%)	1 (2.9%)	1 (0.8%)	
Gen, Student	1 (1.1%)	0 (0.0%)	1 (0.8%)	
Gen, Student, Email	4 (4.6%)	0 (0.0%)	4 (3.3%)	
None	7 (8.0%)	1 (2.9%)	8 (6.6%)	
Student	2 (2.3%)	1 (2.9%)	3 (2.5%)	
Student, Email	1 (1.1%)	0 (0.0%)	1 (0.8%)	
Student, PHI, Email	2 (2.3%)	0 (0.0%)	2 (1.7%)	

Limitations

- Only a small time period was studied and only two clinics
- We are unsure of the differences between utilizers and non-utilizers of the system, for those that provided an email address.
- It is important to note that users of the system for pediatric patients are targeted at the parent, but we do not have specific information about the parent

Conclusion

- This was an exploratory study of characteristics of individuals that completed health histories and consents through My Dental Portal
- Even though there were no significant characteristics in the regression model, it provides guidance for future research in use of the patient portal for pre-appointment information



References

(1) Tapuria A, Porat T, Kalra D, Dsouza G, Xiaohui S, Curcin V. Impact of patient access to their electronic health record: systematic review. Inform Health Soc Care. 2021;46(2):192-204.

(2) Stewart M, Brown JB, Donner A, et al. The impact of patient-centered care on outcomes. J Fam Pract. 2000;49(9):796-804.

(3) Kelly MM, Hoonakker PL, Dean SM. Using an inpatient portal to engage families in pediatric hospital care. J Am Med Inform Assoc. 2017;24(1):153-161.

(4) Tapuria A, Porat T, Kalra D, Dsouza G, Xiaohui S, Curcin V. Impact of patient access to their electronic health record: systematic review. Inform Health Soc Care. 2021;46(2):192-204.