Considering Dentists Within the Healthcare Team: a Cross-sectional, Multi-State Analysis of Primary Care Provider and Staff Perspectives

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INTRODUCTION

Evidence suggests that collaborative primary care practice models integrating dentists can improve patient outcomes and lower overall healthcare costs, especially for patients with conditions like diabetes, coronary artery disease, cerebrovascular disease, and pregnancy.¹ However, dentists often practice in isolation from the healthcare team.²

Past work has described how dental care siloes are reinforced by structural barriers, such as separated medical and dental insurance, non-interoperable electronic health records and lack of interprofessional training.³ How primary care providers (PCPs), other healthcare providers, and staff view dentists amid such barriers is poorly understood. In this study, we use novel survey data to examine the extent to which PCPs, other providers, and staff consider dentists part of the healthcare team, and assess associated practice and individual characteristics.

METHODS

We leveraged survey items from research funded by the Agency for Healthcare Research and Quality (U19 HS024067), approved by the RAND Corporation IRB. The survey was developed following a conceptual model of integration in healthcare,⁴ cognitively tested, and rigorously assessed.

The sample was drawn from 59 practice sites in 17 health systems across four states, with up to 26 respondents per site, randomly selected across hours worked and role strata. The survey was administered online December 2017–October 2019 to 1360 staff with a 61% response rate.

We analyzed responses to the question, “When serving the same patient, how often do you regard the following types of provider or staff member as part of your team?,” which was followed by a list of roles (Table 1), each scored on a 3-point

scale (rarely/never, sometimes, usually/always). To assess how perceptions of dentists relate to individual and practice characteristics, we used mixed effects logistic regression predicting whether respondents rarely/never (= 0) or usually/always/sometimes (= 1) consider dentists on the team (see list of characteristics in Table 2). Results are odds ratios. Sensitivity analysis did not indicate that uniquely fragmented practices were driving our findings; removing observations from practices with the lowest percentages of respondents viewing dentists as part of the team (below the 10th percentile of practices) did not materially alter regression results.

RESULTS

Of 828 respondents, 32.4% were PCPs, 51.9% were other healthcare providers, and 15.7% were administrative staff; 74.5% had at least 2 years tenure; and 26.2% were supervisors. Respondent demographics resembled those in the primary care workforce.⁵ Of all roles listed, dentists were most frequently reported as “rarely or never” part of the respondents’ team (Table 1). All practices had at least one respondent viewing dentists as part of the care team and the percentage of respondents doing so varied within practices (minimum: 10.0%; maximum: 81.3%).

Table 2 shows that PCPs, physician assistants, and nurses had significantly lower odds than other respondents of viewing dentists as part of the care team, as did those in supervisory roles. Respondents in practices with more integrated diabetes care management processes exhibited significantly greater odds of viewing dentists as part of the care team, while respondents in practices with more collaboration between specialties did not; for a one-point increase in diabetes care management process integration in the respondent’s practice, the odds of their viewing a dentist as part of the care team increase by a factor of 1.41, holding other variables constant.

DISCUSSION

These results indicate that dentists are frequently not considered part of the healthcare team in primary care settings. Furthermore, varied responses within practices suggest that provider and staff perceptions may pose challenges to

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Table 1 Percent of Respondents Rarely or Never Considering Dentists and Other Roles as Part of the Healthcare Team, Stratified by Respondent Discipline

	Overall	By respondent discipline		
		Physician	Nurse/PA	Other*
Roles	%	%	%	%
Dentist	24.64	36.98	28.77	18.42
Community health worker	19.81	25.00	25.47	15.79
Hospitalist	16.06	15.62	24.53	13.16
Psychiatrist	13.53	15.10	16.04	12.63
Clinical psychologist	12.80	14.06	15.57	11.84
Visiting nurse	12.44	12.50	18.40	10.26
Social worker, therapist, counselor, health educator	11.71	12.50	15.09	10.53
Non-primary care specialist	9.54	6.25	10.85	11.32
Nutritionist or dietician	9.30	8.85	12.26	8.86
Pharmacist	8.57	8.85	8.49	9.21
Nurse, nurse case manager	4.71	4.17	4.25	5.53
Physician assistant, nurse practitioner	3.38	5.21	3.30	2.63
Clerk or receptionist	3.26	6.25	2.83	2.11
Medical assistant	1.21	2.08	1.89	0.53
Primary care physician	0.60	1.04	0.00	0.79

*Other respondent disciplines include clerk/receptionist, health educator, pharmacist, community health worker, visiting nurse, nutritionist/dietician, other (technicians, medical assistants, other administrative personnel, etc.)

PA is physician assistant

Table 2 Logistic Regression Relating Perceptions of Dentists as Part of the Healthcare Team to Practice and Respondent Characteristics

	Dependent variable
	Views dentist as part of the healthcare team sometimes, usually, or always
Practice care approaches	
Collaboration between specialties	0.91
Integrated diabetes care management process for eye examination	1.41**
Respondent characteristics	
Female	1.05
White	0.88
Hispanic	1.11
Tenure of 2 years+	1.01
Supervisor	0.61*
Primary care physician (relative to other staff)	0.47**
Physician assistant or nurse (relative to other staff)	0.63*
N	813

* $p < .05$; mixed effects logistic regressions to reflect practice sites nested in health systems; standard errors clustered by practice site; data were multiply imputed ($n = 10$) to account for missing data and weighted for non-response. Results presented in odds ratios. Collaboration between specialties measured on a 5-point scale in response to "We do a good job of collaborating between specialties to delivery high quality patient care." Integrated diabetes care management process measured as mean of 5 questions about coordination for diabetic eye examination (patient's getting a timely appointment, practice learning that the exam was performed, ophthalmologist communicating with practice; taking responsibility for following up, being informed of changes to medication)

integrating dentists into primary care beyond the structural barriers often highlighted.³

Frameworks to integrate dental services into healthcare depend on providers to facilitate integration.⁶ Yet our findings suggest that PCPs, physician assistants, nurses, and supervisors may be unlikely to do so. Focused interventions to spur providers and supervisors to re-evaluate their perceptions about dentists may help such frameworks succeed.

Incorporating dental care in medical guidelines may also be of value. Our results suggest that respondents in practices with more integrated diabetes care management processes were more likely to consider dentists as part of the healthcare team. This finding reflects dental care recommendations made by the American Diabetes Association.⁷

These data are self-reported by a small sample of clinical staff and healthcare providers in the USA, which may have resulted in both response and selection bias, thus limiting generalizability.

John Ahern, MD DMD PhD¹

Sara Singer, PhD MBA²

Aditi Bharja, MPH³

Jane Barrow, MS¹

Michaela Kerrissey, PhD MS³

¹Harvard School of Dental Medicine, Boston, MA, USA

²Stanford University School of Medicine, Stanford, CA, USA

³Harvard T.H. Chan School of Public Health, Boston, MA, USA

Corresponding Author: John Ahern, MD DMD PhD; Harvard School of Dental Medicine, Boston, MA, USA (e-mail: john_ahern@hsdm.harvard.edu).

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Compliance with Ethical Standards:

Conflict of Interest: The authors declare that they do not have a conflict of interest.

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