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Original research

## Patient preference in primary care provider type

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### A B S T R A C T

**Background:** Given the growing roles of nurse practitioners (NPs) and physician assistants (PAs), patients are increasingly able to choose their primary care provider type. Studies examining patient preferences among provider types are limited and ours is the first to examine reasons for patients' provider type preferences.

**Methods:** Using data from the 2014 Association of American Medical Colleges' (AAMC) Consumer Survey of Health Care Access, we used qualitative analysis to identify themes in open text responses of reasons for respondents' provider type preference (N = 4220). After coding responses for themes, we used chi-square tests to assess whether there were statistically significant differences in respondents' reasons for their provider preference, and whether reasons vary by the gender, race, or age of the respondent.

**Results:** Those preferring physicians were more likely to cite physician qualifications (75%) and trust (7%) than those preferring NP/PAs (qualifications = 36%; trust = 4%). Those preferring NP/PAs were more likely to cite bedside manner (20%) and convenience (9%) than those preferring physicians (bedside manner = 5%; convenience = 4%). Both groups of respondents were equally likely to mention previous experience with their provider type as a reason for their preference (prefer physician = 19%; prefer NP/PA = 21%).

**Conclusions:** Provider qualifications and previous health care experiences are cited as key reasons for preferring all provider types. Additionally, physicians are more often preferred for their qualifications and technical skills, whereas NP/PAs are more often preferred for their interpersonal skills.

**Implications:** Our results could help providers, health system administrators, workforce planners, and policy makers better understand patient perspectives and design care that enhances patient satisfaction.

### 1. Background

Patient preferences for specific types of primary care providers are central considerations as healthcare transformation focuses simultaneously on patient-centeredness and team models. Given the growing roles of nurse practitioners (NPs) and physician assistants (PAs),<sup>1</sup> patients are increasingly able to choose their primary care provider type. Understanding patient preferences is important for designing training, staffing and delivery strategies that meet patient needs and expectations.

Research on patient preferences shows that when given a choice of physician providers, patients consider factors such as availability,<sup>2,3</sup> convenience,<sup>3</sup> professional competence and technical ability,<sup>4,5</sup> the nature of the doctor-patient relationship,<sup>6</sup> interpersonal skills,<sup>4</sup> and patients' own previous healthcare experiences.<sup>3</sup> Studies also suggest that although patients place value on the above factors, when actually

choosing a new provider patients rely overwhelmingly on their own experiences, those of friends and family, or recommendations from their current healthcare provider.<sup>5</sup>

Evidence on how patient characteristics affect provider preference is mixed. Some studies find no association between a patient's gender, race, or age and reasons for their preference,<sup>2</sup> while others suggest that patients' characteristics may affect their willingness or ability to choose a new provider, as well as the sources of information that they consult when making their choice.<sup>3</sup> Past research has found that patient characteristics are associated with the type of their primary care provider, with NP/PAs more likely to see patients who are female, younger and less medically complex than physicians,<sup>7–10</sup> although the differences are small and evidence of the association is mixed.<sup>11</sup>

Studies examining patient preferences among provider types are limited. What research exists suggests that patient willingness to see a PA is affected by wait times for receiving care,<sup>12</sup> and that patient

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satisfaction is generally similar among physicians, NPs, and PAs.<sup>8,13–15</sup> Additionally, a study using data from the December 2011–January 2012 round of the Association of American Medical Colleges' (AAMC) Consumer Survey of Health Care Access showed that, when presented with a hypothetical scenario asking respondents to choose a new primary care provider (PCP), 50% preferred a physician, 23% preferred a NP/PA, and 26% had no preference.<sup>16</sup> Our research is the first to examine reasons for provider type preferences.

Using data from a subsequent round of the AAMC Consumer Survey, we investigate reasons for healthcare consumers' provider type preference. We use a mixed methods approach that combines qualitative analysis of open-ended survey responses with statistical analysis of the results. Our research found that respondents who preferred physicians more often cited qualifications such as medical knowledge and training as their rationale. Those who preferred NPs/PAs also referenced qualifications, albeit with significantly less frequency, and were instead more apt than those preferring physicians to cite "bedside manner" components, such as interpersonal skills and spending more time with patients (Exhibit 1).

## 2. Methods

### 2.1. Data source

Our data are drawn from the 2014 Association of American Medical Colleges' (AAMC) biannual Consumer Survey of Health Care Access. The AAMC survey presented respondents with a hypothetical scenario in which they were asked to imagine that they needed a new PCP. Respondents were then asked if they would prefer a physician, an NP/PA, or had no preference for their new PCP. Respondents who expressed a provider type preference were then presented with an open-ended follow-up question where they were asked to explain the reason for their preference.

Our sample includes respondents who reported receiving medical care within the 12 months prior to the survey ( $N = 5606$ ), and who expressed a provider type preference ( $N = 4254$ ). Thirty-four patients who reported in an open text question that they made an error in recording their provider type preference were eliminated, leaving an analytic sample size of 4220.

### 2.2. Analysis

For the qualitative portion of our analysis, we used NVivo 11 software<sup>17</sup> to identify themes in the open text responses to the hypothetical question regarding why the respondent preferred a particular provider type. Respondents' open-ended answers to this question were analyzed using an iterative process in which two members of our study team (MG/BL) read through the responses and assigned them to initial thematic categories. These categories were then reviewed and refined by the entire study team which includes a non-clinician researcher, physician assistants, and a physician. The two initial coders used the refined list of themes to independently and systematically code all of the responses. They discussed disagreements in coding until they had 100% concordance. The thematic categories are not exhaustive or mutually exclusive, and 24% of the responses were assigned to multiple categories.

After coding responses for themes, we used cross-tabulations and chi-square tests of statistical significance to assess whether there were statistically meaningful differences in respondents' reasons for their provider preference, and whether respondents' gender, age, or race were associated with their reasons.

We used sample weights when calculating the percentage of respondents preferring each provider type so that the data are representative of the US population with regard to age, sex, race/ethnicity, employment status and household income. No sample weights were used for the analysis of the qualitatively-derived data.

The goal of qualitative research is to explore the complexity of a research topic rather than to generalize results to a larger population.<sup>18</sup>

## 3. Results

When presented with the hypothetical scenario of choosing a new PCP, 55% of respondents indicated that they strongly or somewhat prefer physician as a PCP, 21% indicated that they would strongly or somewhat prefer a NP/PA, and the remaining 23% expressed no preference or selected "don't know."

The most salient concepts in the reasons offered for their preferences were provider qualifications, bedside manner, and personal and previous experience with each provider type. The reasons given by those preferring physicians and those preferring NP/PAs exhibit substantial overlap, but the pattern of themes varies by provider type preference (Exhibit 1). Both groups of respondents most often cited qualifications and personal or previous experience with the provider type as reasons for their preference. Thematic categories are shown in more detail in Exhibit 2, with samples of patient comments related to each category.

Chi-square tests (Exhibit 1) show that those preferring physicians are statistically significantly more likely to mention qualifications (Physician = 75%; NP/PA = 36%), trust (Physician = 7%; NP/PA = 4%), and feeling more comfortable (Physician = 4%; NP/PA = 3%) than those preferring NP/PAs. In contrast, respondents were significantly more likely to report their reasons for preferring NP/PAs as bedside manner (Physician = 5%; NP/PA = 20%), convenience (Physician = 4%; NP/PA = 9%), and value/cost (Physician = 3%; NP/PA = 5%). Respondents who prefer a physician or NP/PA are equally likely to cite good (or bad) experiences with those provider types, as well as to attribute their preference to sheer habit, a finding captured by the personal and previous experience thematic category.

Our analysis of respondent characteristics shows that gender, race, and age are associated with reasons for provider type preference, however, the magnitude of difference is small (Exhibit 3). Chi-square tests show that women are more likely than men to cite personal and previous experience (Female = 20.71%; Male = 16.84%), bedside manner (Female = 9.78%; Male = 7.81%), and value/cost (Female = 4.16%; Male = 2.32%). Older respondents are more likely to cite qualifications (18–34 = 56.93%; 35–64 = 67.31%; 65+ = 69.93%) and trust (18–34 = 4.97%; 35–64 = 5.63%; 65+ = 8.59%), and younger respondents are more likely to mention bedside manner (18–34 = 10.64%; 35–64 = 8.92%; 65+ = 6.81%). Reasons also varied by race with Hispanic respondents being the least likely to cite qualifications (Hispanic = 55.56%; other = 57.16%; non-Hispanic Black = 62.97%; non-Hispanic White = 68.75%), and non-Hispanic Black respondents being the most likely to mention feeling more comfortable (non-Hispanic Black = 6.12%; Hispanic = 3.92%; non-Hispanic White = 3.60%; other = 1.97%).

In our qualitative analysis, the theme of value/cost captures differing perceptions of value/cost based on the preferred provider type. Those preferring a NP/PA are more likely to frame the value concept in terms of paying less while still receiving good quality care; whereas those preferring a physician express a desire to get the best possible care for their money (e.g. "I want to get what I pay for.").

Our thematic coding of responses revealed an additional insight that goes beyond reasons for provider type preference. Of those respondents preferring a physician, 164 (5.2%) volunteered as part of their open-ended answers that they would be willing to see a NP/PA under certain circumstances. In particular, they noted that they would be willing to see a NP/PA if their physician recommended it, if they were able to see the physician on their first visit to a new practice, if it would be quicker to get an appointment, or if their health concern was relatively minor.

#### 4. Discussion

Our analysis found similar proportions of respondents preferring each primary care provider type as that reported in previous research.<sup>16</sup> Respondents cited provider qualifications (i.e. greater knowledge, more experience, and more education) and previous health care experiences as pivotal factors, regardless of their provider type preference.

Our analysis also revealed differences in patients' reasons for preferring a physician or a NP/PA as their PCP. The most striking difference is that physicians seem to be more often preferred for their qualifications and technical skills, whereas NP/PAs are more frequently preferred for their interpersonal skills. This highlights a distinction in patient values that has implications for patient centered care.

The association between patient demographics and reasons for provider type preference identified by our analysis extends previous research by showing that in addition to affecting provider type choice or assignment,<sup>7–10</sup> gender, age, and race may be important for understanding healthcare consumers' reasons for their preference. Future research should investigate this relationship with more robust statistical methods to see if the finding holds true when controlling for potentially confounding factors.

##### 4.1. Strengths

Qualitative analysis of open-ended survey questions is a strong methodology for understanding the reasons for patient preferences. This method allows researchers to capture nuances of meaning, such as the different ways of framing “value,” while creating data appropriate for statistical analysis.

#### 5. Limitations

Our research relies on responses to a hypothetical scenario where respondents were asked to select a new primary care provider type. The actual provider type choices made by patients may differ from their expressed preference. Patients without knowledge of or access to computers were not included in this web-based survey. Additionally, the survey is only administered in English. Evidence from the open-ended responses suggests that some respondents may have misidentified the training and credentials of the PCP(s) they currently see or have seen in the past. Patients who stated no preference/don't know were not asked to provide a reason for their lack of preference and were therefore excluded from the qualitative analysis. Their reasons for a lack of preference might give additional insight into patients' provider type preferences.

Future research should seek to confirm the distinction in patient values between those preferring physicians and those preferring NP/PAs. Efforts should be made to investigate additional factors that might influence provider type preferences, such as patients' health status, insurance type, and economic status. Factors external to the patient that might affect provider type preference, such as provider and facility characteristics,<sup>3,5</sup> should also be investigated. Future surveys could also specifically ask respondents about the relative value they assign to provider traits such as technical skills, training, and interpersonal skills when choosing a PCP.

#### 6. Implications

Our finding that respondents perceive physicians and NP/PAs as possessing differing levels of technical and interpersonal skills has implications for patient care. Research suggests that patients' decision making and ability to understand medical risks is influenced by their trust in their provider, and that trust develops when patients perceive their provider as both competent and caring.<sup>19</sup> It is therefore important

for providers to cultivate technical *and* interpersonal skills.

Our results could help providers, health system administrators, workforce planners, and policy makers better understand patient perspectives and design care that enhances patient satisfaction. Some of our findings might lead providers and their employing practices to explore establishing patient-provider linkages based on patients' stated preferences, inform practices about which providers to hire, and identify opportunities for staff professional development. These results may also help to guide patient education about different provider types, and provide insight into how best to educate different providers in order to improve patient satisfaction.

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#### Appendix A. Supplementary material

Supplementary data associated with this article can be found in the online version at <http://dx.doi.org/10.1016/j.hjdsi.2017.01.001>.

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