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# Survey participants are more willing to receive dermatology care from dermatologists than from advanced care practitioners

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To the Editor:

To meet growing demand of an aging population for skin care, advance practice providers such as physician assistants/associates (PAs) and nurse practitioners (NPs) are widely used [1]. However, patients often prefer a primary care physician (PCP) over NPs/PAs [2,3]. Few data exist on how provider credentials impact dermatology patients' willingness to receive care. We sought to determine if the public is more willing to be treated by dermatologists than non-dermatologists with different dermatologic treatments.

Institutional Review Board approval was obtained. U.S. participants  $\geq 18$  years old were recruited via Amazon Mechanical Turk (MTurk, **Table 1**), [4]. We queried willingness to be treated with topical, systemic, cosmetic, and surgical management from different provider types (without credential definitions, **Table 2**). After excluding 74 subjects with incomplete surveys and 132 failing  $\geq 1$  attention check, 166 participants were analyzed (**Table 1**).

Participants were more willing to receive care from dermatologists than all other providers for all dermatologic management types (**Table 2**). More participants (ranging from 4.2-10.2% based on

treatment) were more strongly willing to receive care from MD/MD FAAD dermatologists than DO/DO FAAD dermatologists. For PAs/NPs, on average, participants were more willing to be prescribed topical corticosteroids (46.2%) than adalimumab (40.4%), Botox (32.7%), or surgery (28.9%). Participants were least willing to receive topical (29.5%), systemic (21.1%), and surgical (18.1%) care from an esthetician.

Regardless of education level, participants were most willing to receive care from dermatologists for all treatment types (**Table 3**). Overall, for most treatments and provider types, a greater percentage of females were willing to receive care than males.

Although there is some disparity in willingness to be treated by MD versus DO dermatologists and the FAAD designation did not appear to significantly change patient preferences, participants are most comfortable receiving all types of dermatologic care from dermatologists. By contrast, participants may be more willing to have NPs/PAs manage simple treatments, like topical corticosteroids, but less willing to allow them to manage complex medications (e.g., biologics), surgeries, and cosmetic procedures. Furthermore, slightly fewer patients were willing to receive care from physician associates compared to physician assistants. These results appear internally consistent. However, our study population demographics may not represent

**Table 1.** Demographic data of participants (N=166).

Demographic	Number of Participants	Percentage of Participants
Age		
18-30	49	29.5%
31-40	47	28.3%
41-50	32	19.3%
51-60	24	14.5%
61-70	12	7.2%
71-80	2	1.2%
Gender (sex)		
Male	69	41.6%
Female	95	57.2%
Other	2	1.2%
Ethnicity		
White	119	71.7%
Asian	14	8.4%
Black or African American	23	13.9%
American Indian or Alaska Native	1	0.6%
Hispanic or Latino	7	4.2%
Other	2	1.2%
Highest level of education		
High school graduate (high school diploma or equivalent including GED)	14	8.4%
Master's degree	29	17.5%
Some college but no degree	30	18.1%
Bachelor's degree in college (4-year)	69	41.6%
Doctoral degree	3	1.8%
Associate degree in college (2-year)	18	10.8%
Professional degree (JD, MD)	1	0.6%
Less than high school degree	2	1.2%
Residence based on U.S. Census Bureau Regions		
New England	7	4.2%
Middle Atlantic	23	13.9%
East North Central	19	11.4%
West North Central	8	4.8%
South Atlantic	38	22.9%
East South Central	9	5.4%
West South Central	22	13.3%
Mountain	14	8.4%
Pacific	26	15.7%

the general population. Our data may include respondents who would not seek care or treatment, regardless of the provider. It also is unclear whether differences in preferences correlate with real-world behavior or patient-reported outcomes after receiving care from a provider type.

Overall, respondents are most willing to receive dermatologic care from dermatologists, followed by non-dermatologist physicians, NPs/PAs, and then estheticians. Differences in willingness to receive care from providers with specific credentials may be attributed to participants' existing or lack of knowledge of the level of dermatologic training received by each provider type. The public may benefit from education of provider credentials and training, especially the importance of the FAAD designation. Ultimately, as the demand for dermatology care increases, it may be beneficial to consider patients' provider preferences to help guide non-dermatologist employment practices and improve patient satisfaction.

### Potential conflicts of interest

Dr. Steven Feldman has received research, speaking and/or consulting support from Galderma, GSK/Stiefel, Almirall, Leo Pharma, Boehringer Ingelheim, Mylan, Helsinn, PHD Biosciences, Celgene, Pfizer, Valeant, Abbvie, Samsung, Janssen, Lilly, Menlo, Merck, Novartis, Regeneron, Sanofi, Novan, Qurient, National Biological Corporation, Caremark, Advance Medical, Sun Pharma, Suncare Research, Informa, UpToDate and National Psoriasis Foundation. He is founder and majority owner of [www.DrScore.com](http://www.DrScore.com) and founder and part owner of Causa Research, a company dedicated to enhancing patients' adherence to treatment. The remaining authors have no conflicts to disclose.

## References

1. Sargen MR, Shi L, Hooker RS, Chen SC. Future growth of physicians and non-physician providers within the U.S. Dermatology workforce. *Dermatol Online J.* 2017;23(9). [PMID: 29469712].
2. Leach B, Gradison M, Morgan P, et al. Patient preference in primary care provider type. *Healthc (Amst).* 2018;6:13-16. [PMID: 28602803].
3. Dill MJ, Pankow S, Erikson C, Shipman S. Survey shows consumers open to a greater role for physician assistants and nurse practitioners. *Health Aff (Millwood).* 2013;32:1135-42. [PMID: 23722989].
4. Buhrmester M, Kwang T, Gosling SD. Amazon's Mechanical Turk: A New Source of Inexpensive, Yet High-Quality, Data? *Perspect Psychol Sci.* 2011;6:3-5. [PMID: 26162106].

**Table 2.** Number and percentages of participants willing to be treated by different dermatology providers with different treatments/management options (N=166).

Treatment/Management Prompt and Provider Type	Strongly willing	Slightly willing	Neutral	Slightly NOT willing	Strongly NOT willing
Topical steroids are commonly used for treating dermatologic conditions. The strength of these treatments range from weak steroids like hydrocortisone (available over the counter) to super potent steroids like clobetasol (up to 600 times stronger than hydrocortisone). How willing would you be to be treated with a topical steroid prescribed by a provider with the following title/credentials:					
Primary Care Physician - MD	70 (42.2%)	51 (30.7%)	20 (12%)	12 (7.2%)	13 (7.8%)
Primary Care Physician - DO	58 (34.9%)	51 (30.7%)	27 (16.3%)	20 (12%)	10 (6%)
Dermatologist - MD	103 (62%)	32 (19.3%)	13 (7.8%)	10 (6%)	8 (4.8%)
Dermatologist - DO	86 (51.8%)	41 (24.7%)	14 (8.4%)	12 (7.2%)	13 (7.8%)
Dermatologist - MD, FAAD	104 (62.7%)	24 (14.5%)	19 (11.4%)	9 (5.4%)	10 (6%)
Dermatologist - DO, FAAD	88 (53%)	39 (23.5%)	17 (10.2%)	10 (6%)	12 (7.2%)
Physician Assistant (PA)	34 (20.5%)	45 (27.1%)	43 (25.9%)	24 (14.5%)	20 (12%)
Physician Associate (PA)	30 (18.1%)	45 (27.1%)	36 (21.7%)	31 (18.7%)	24 (14.5%)
Nurse Practitioner (NP)	43 (25.9%)	33 (19.9%)	41 (24.7%)	28 (16.9%)	21 (12.7%)
Esthetician	16 (9.6%)	33 (19.9%)	46 (27.7%)	35 (21.1%)	36 (21.7%)
Adalimumab is an immunosuppressive drug that is injected every two weeks. It is commonly used to treat diseases like psoriasis and may require laboratory monitoring. How willing would you be to be treated with adalimumab prescribed by a provider with the following title/credentials:					
Primary Care Physician - MD	69 (41.6%)	40 (24.1%)	23 (13.9%)	16 (9.6%)	18 (10.8%)
Primary Care Physician - DO	54 (32.5%)	45 (27.1%)	28 (16.9%)	21 (12.7%)	18 (10.8%)
Dermatologist - MD	92 (55.4%)	31 (18.7%)	15 (9%)	17 (10.2%)	11 (6.6%)
Dermatologist - DO	76 (45.8%)	39 (23.5%)	19 (11.4%)	18 (10.8%)	14 (8.4%)
Dermatologist - MD, FAAD	92 (55.4%)	26 (15.7%)	19 (11.4%)	13 (7.8%)	16 (9.6%)
Dermatologist - DO, FAAD	79 (47.6%)	40 (24.1%)	15 (9%)	16 (9.6%)	16 (9.6%)
Physician Assistant (PA)	33 (19.9%)	35 (21.1%)	37 (22.3%)	36 (21.7%)	25 (15.1%)
Physician Associate (PA)	26 (15.7%)	38 (22.9%)	35 (21.1%)	37 (22.3%)	30 (18.1%)
Nurse Practitioner (NP)	34 (20.5%)	35 (21.1%)	33 (19.9%)	40 (24.1%)	24 (14.5%)
Esthetician	13 (7.8%)	22 (13.3%)	34 (20.5%)	41 (24.7%)	56 (33.7%)
Botox is a cosmetic treatment that is injected into the muscles of the face that can reduce frown lines and lift your eyebrows. How willing would you be to be treated with Botox injected by a provider with the following title/credentials:					
Primary Care Physician - MD	47 (28.3%)	35 (21.1%)	26 (15.7%)	23 (13.9%)	35 (21.1%)
Primary Care Physician - DO	37 (22.3%)	34 (20.5%)	30 (18.1%)	31 (18.7%)	34 (20.5%)
Dermatologist - MD	86 (51.8%)	30 (18.1%)	17 (10.2%)	9 (5.4%)	24 (14.5%)
Dermatologist - DO	71 (42.8%)	38 (22.9%)	23 (13.9%)	9 (5.4%)	25 (15.1%)
Dermatologist - MD, FAAD	84 (50.6%)	29 (17.5%)	19 (11.4%)	12 (7.2%)	22 (13.3%)
Dermatologist - DO, FAAD	77 (46.4%)	37 (22.3%)	15 (9%)	13 (7.8%)	24 (14.5%)
Physician Assistant (PA)	24 (14.5%)	31 (18.7%)	30 (18.1%)	37 (22.3%)	44 (26.5%)
Physician Associate (PA)	19 (11.4%)	33 (19.9%)	30 (18.1%)	38 (22.9%)	46 (27.7%)
Nurse Practitioner (NP)	21 (12.7%)	35 (21.1%)	29 (17.5%)	34 (20.5%)	47 (28.3%)

Esthetician	22 (13.3%)	33 (19.9%)	34 (20.5%)	28 (16.9%)	49 (29.5%)
Skin cancers can be treated with an excision. How willing would you be to be treated a skin with an excision performed by a provider with the following title/credentials:					
Primary Care Physician - MD	62 (37.3%)	41 (24.7%)	19 (11.4%)	23 (13.9%)	21 (12.7%)
Primary Care Physician - DO	50 (30.1%)	33 (19.9%)	33 (19.9%)	29 (17.5%)	21 (12.7%)
Dermatologist - MD	100 (60.2%)	32 (19.3%)	13 (7.8%)	11 (6.6%)	10 (6%)
Dermatologist - DO	86 (51.8%)	31 (18.7%)	20 (12%)	20 (12%)	9 (5.4%)
Dermatologist - MD, FAAD	96 (57.8%)	33 (19.9%)	14 (8.4%)	12 (7.2%)	11 (6.6%)
Dermatologist - DO, FAAD	85 (51.2%)	30 (18.1%)	26 (15.7%)	14 (8.4%)	11 (6.6%)
Physician Assistant (PA)	14 (8.4%)	36 (21.7%)	32 (19.3%)	43 (25.9%)	41 (24.7%)
Physician Associate (PA)	14 (8.4%)	33 (19.9%)	29 (17.5%)	41 (24.7%)	49 (29.5%)
Nurse Practitioner (NP)	19 (11.4%)	28 (16.9%)	34 (20.5%)	44 (26.5%)	41 (24.7%)
Esthetician	8 (4.8%)	22 (13.3%)	31 (18.7%)	35 (21.1%)	70 (42.2%)

**Table 3.** Percentage of participants willing to receive care from different dermatology providers by education level and gender.

Treatment/Management Prompt and Provider Type	Demographic Category			
	Less than high school degree, High school graduate, or some college without degree (n=46)	Associate's, Bachelor's, Master's, Doctoral, or Professional degree (n=120)	Female (n=95)	Male (n=69)
Topical steroids are commonly used for treating dermatologic conditions. The strength of these treatments range from weak steroids like hydrocortisone (available over the counter) to super potent steroids like clobetasol (up to 600 times stronger than hydrocortisone). How willing would you be to be treated with a topical steroid prescribed by a provider with the following title/credentials:				
Primary Care Physician - MD	65.2%	64.2%	74.7%	69.6%
Primary Care Physician - DO	60.9%	55.0%	69.5%	59.4%
Dermatologist - MD	73.9%	70.0%	86.3%	73.9%
Dermatologist - DO	65.2%	65.8%	81.1%	69.6%
Dermatologist - MD, FAAD	67.4%	66.7%	84.2%	66.7%
Dermatologist - DO, FAAD	65.2%	65.8%	83.2%	66.7%
Physician Assistant (PA)	50.0%	36.7%	51.6%	42.0%
Physician Associate (PA)	52.2%	32.5%	47.4%	42.0%
Nurse Practitioner (NP)	50.0%	34.2%	53.7%	33.3%
Esthetician	34.8%	25.0%	31.6%	24.6%
Adalimumab is an immunosuppressive drug that is injected every two weeks. It is commonly used to treat diseases like psoriasis and may require laboratory monitoring. How willing would you be to be treated with adalimumab prescribed by a provider with the following title/credentials:				
Primary Care Physician - MD	54.3%	55.8%	66.3%	65.2%
Primary Care Physician - DO	50.0%	48.3%	62.1%	56.5%
Dermatologist - MD	63.0%	62.5%	75.8%	71.0%
Dermatologist - DO	56.5%	58.3%	72.6%	63.8%
Dermatologist - MD, FAAD	58.7%	60.8%	73.7%	66.7%
Dermatologist - DO, FAAD	56.5%	61.7%	72.6%	69.6%
Physician Assistant (PA)	32.6%	34.2%	41.1%	40.6%
Physician Associate (PA)	30.4%	30.8%	37.9%	39.1%
Nurse Practitioner (NP)	30.4%	35.0%	43.2%	37.7%
Esthetician	17.4%	20.8%	17.9%	24.6%
Botox is a cosmetic treatment that is injected into the muscles of the face that can reduce frown lines and lift your eyebrows. How willing would you be to be treated with Botox injected by a provider with the following title/credentials:				
Primary Care Physician - MD	37.0%	45.8%	45.3%	56.5%
Primary Care Physician - DO	37.0%	37.5%	36.8%	52.2%
Dermatologist - MD	63.0%	60.0%	73.7%	63.8%
Dermatologist - DO	56.5%	58.3%	67.4%	62.3%
Dermatologist - MD, FAAD	60.9%	59.2%	70.5%	63.8%
Dermatologist - DO, FAAD	63.0%	60.8%	70.5%	65.2%
Physician Assistant (PA)	28.3%	25.8%	29.5%	39.1%
Physician Associate (PA)	23.9%	25.0%	29.5%	34.8%
Nurse Practitioner (NP)	23.9%	29.2%	34.7%	31.9%
Esthetician	23.9%	30.0%	34.7%	30.4%
Skin cancers can be treated with an excision. How willing would you be to be treated a skin with an excision performed by a provider with the following title/credentials:				
Primary Care Physician - MD	45.7%	55.0%	62.1%	63.8%
Primary Care Physician - DO	43.5%	42.5%	47.4%	55.1%
Dermatologist - MD	69.6%	68.3%	89.5%	65.2%

Dermatologist - DO	63.0%	60.8%	75.8%	62.3%
Dermatologist - MD, FAAD	69.6%	65.8%	86.3%	66.7%
Dermatologist - DO, FAAD	63.0%	59.2%	75.8%	60.9%
Physician Assistant (PA)	28.3%	24.2%	30.5%	30.4%
Physician Associate (PA)	28.3%	22.5%	27.4%	30.4%
Nurse Practitioner (NP)	21.7%	25.0%	31.6%	23.2%
Esthetician	21.7%	15.8%	15.8%	20.3%