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Journal

Dermatology Online Journal, 31(3)

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Publication Date

2025

DOI

10.5070/D331365373

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Peer reviewed

Letter

The effect of anchoring on patients' likeliness to take an injection treatment for hidradenitis suppurativa

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Keywords: anchoring, biologics, hidradenitis, injection, needle, psychological, treatment, willingness

Dermatology Online Journal

Vol. 31, Issue 3, 2025

To the Editor

The management of hidradenitis suppurativa (HS) requires a multimodal approach including topical and systemic treatments, lifestyle adjustments, and possible surgical intervention.¹ Recent pharmaceutical advancements have enabled the use of biologics, offering a more targeted, personalized, and effective treatment for HS. Although severe HS may be best treated with injectable medications, needle fear is common among those with chronic conditions, posing a barrier to treatment acceptance.² The psychological intervention of anchoring may serve as a potential approach in helping patients overcome fear of injections.^{3,4} Anchoring refers to the cognitive tendency of individuals to evaluate new information in relation to initial reference points. Our aim was to determine whether anchoring impacts an individual's likelihood of accepting injectable medication for HS.

The project was approved by the Institutional Review Board at Wake Forest University School of Medicine. Survey respondents were randomized into four groups through Amazon MTurk after correctly answering an attention check question. The control group was asked about their knowledge of HS and their likelihood of taking a biweekly injection. Group 1 was asked about their likeliness to take a biweekly injection after being asked about a once-daily injectable medication. Groups 2 and 3 were asked about their likeliness to take a medication given by injection like insulin, which patients with diabetes take two to four times a day but only needs to be taken biweekly. Group 2 was asked about their knowledge level of HS after the likeliness question, whereas Group 3 was asked about their knowledge level of HS before the likeliness question. To enhance the study's reliability and reduce unintentional framing differences, the phrasing of questions was adapted from previously published anchoring studies.³⁻⁵

Participants rated their likeliness on a 10-point Likert scale. We compared scores using a Mann-Whitney U test and Kruskal-Wallis multiple comparison test. The 10-point scale was also broken down into three categories, and we used a Chi-square test to compare these groups. Linear regression was performed using the 10-point Likert scale.

In our cohort of 187 participants, the four groups were similar ([Table 1](#)). Furthermore, there were no differences between study groups in the willingness to take injections for HS. The order of questions seen in Groups 2 and 3 did not affect willingness. However, males (mean=6.0) were somewhat more willing than females (mean=4.9, $P=0.024$, $B=-1.080$). Participants with a bachelor's degree or higher (mean=6.1) were more willing than those with an associate's degree or less (mean=5.0, $P=0.016$, $B=1.092$) ([Figure 1](#)).

As behavioral interventions in dermatological treatment continue to grow, different pathologies and demographics may show varying susceptibility to anchoring. Although anchoring increases acceptance of treatment in patients with acne and atopic dermatitis, it does not improve caregiver's acceptance of topical treatments for atopic dermatitis.⁵ Anchoring does not significantly affect the stated willingness to take injection treatment for HS. However, sex and education may slightly influence willingness, though differences among individuals within these groups were larger than differences between groups. The limited effect of anchoring on treatment decisions for HS could be related to the great impact of this condition on quality of life, or the severity of the disease at the time of presentation.¹

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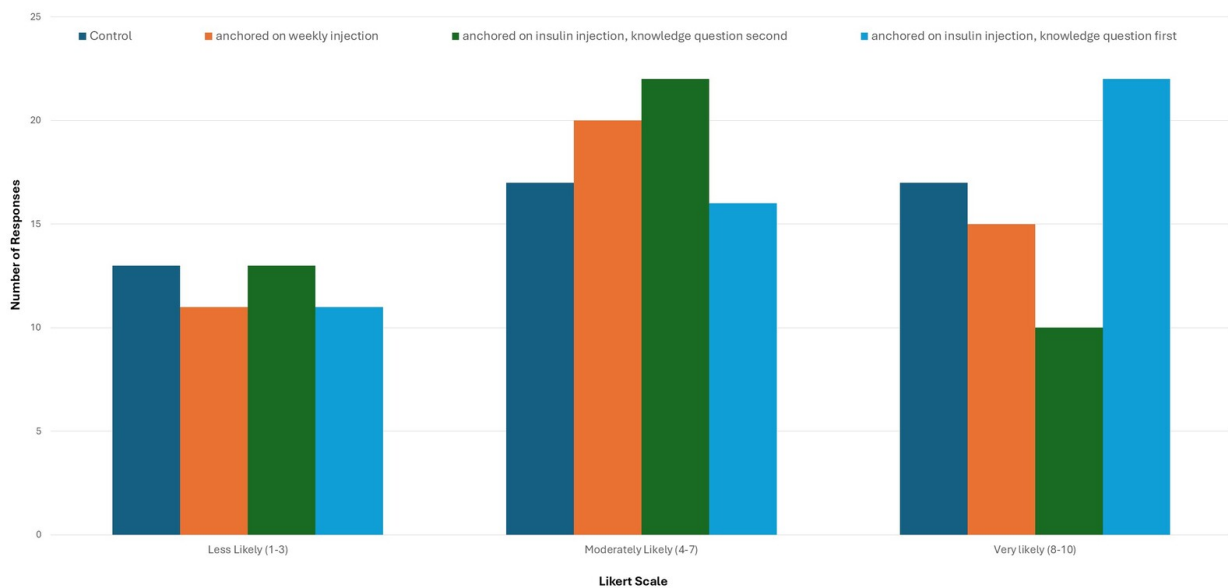


Figure 1. Anchoring does not impact reported likeliness to take an injection for treatment of hidradenitis suppurativa. **A)** Survey responses organized in a 10-point Likert scale and **B)** a grouped Likert scale with score ranges of 1-3, 4-7, and 8-10. A score of 1 corresponds to unlikeliness to take an injection therapy for hidradenitis suppurativa, whereas a score of 10 corresponds to a likeliness to take injection therapy.

Table 1. Summary of Baseline Characteristics ^a

Variable	Groups			
	Control (n=47)	Group 1 ^b (n=46)	Group 2 ^c (n=45)	Group 3 ^d (n=49)
Age, mean (SD)	33.6 (7.8)	35.4 (10.3)	33.9 (7.5)	32.8 (8.7)
Sex, No. (%)				
Male	35 (74.5)	36 (78.3)	36 (80)	43 (87.8)
Female	12 (25.5)	10 (21.7)	9 (20)	6 (12.2)
Education, No. (%)				
Associate's Degree or some college	2 (4.3)	1 (2.2)	2 (4.4)	1 (2)
Bachelor's Degree	35 (74.5)	30 (65.2)	34 (75.6)	38 (77.6)
Graduate School	2 (4.3)	4 (8.7)	0 (0)	2 (4.1)
High School or GED	7 (14.9)	11 (23.9)	9 (20)	8 (16.3)
Less than or some high school	1 (2.1)	0 (0)	0 (0)	0 (0)

^a There were no significant differences between the group's baseline characteristics.

^b Group 1 was anchored on injection treatment for HS every week before being asked if they would be willing to undergo injection treatment for HS every two weeks.

^c Group 2 was anchored on an explanation of the frequency of insulin treatment and subsequently asked if they would undergo injection treatment for HS every two weeks. They were then asked about their knowledge level of HS afterward.

^d Group 3 was anchored on an explanation of the frequency of insulin treatment and subsequently asked if they would undergo injection treatment for HS every two weeks. Before this question, they were asked about their knowledge level of HS.

Potential conflicts of interest

Feldman has received research, speaking, and/or consulting support from AbbVie, Accordant, Almirall, Alvotech, Amgen, Arcutis, Arena, Argenx, Biocon,

Boehringer Ingelheim, Bristol-Myers Squibb, Dermavant, Eli Lilly and Company, Eurofins, Forte, Galderma, Helsinn, Janssen, Leo Pharma, Micros, Mylan, Novartis, Ono, Ortho Dermatology, Pfizer, Regeneron, Samsung, Sanofi, Sun Pharma, UCB, Verrica, Voluntis, and vTv Therapeu-

tics. He is also the founder and part owner of Causa Research and holds stock in Sensal Health.

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