

Nontraditional Healing Utilization and Disclosure Among Dermatology Patients: A National Cross-Sectional Survey Study

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INTRODUCTION

Nontraditional healing (NTH) consists of spiritual and religious healing (SRH) and complementary and alternative medicine (CAM). SRH includes faith healing, prayer, and meditation. CAM includes use of non-prescribed medications or behaviors such as supplements, plant-based remedies, and behavioral changes.

CAM and SRH use are increasingly prevalent, with studies reporting that 35–69% of patients use CAM for skin diseases.¹ For example, in a 2020 survey, patients with hidradenitis suppurativa (84%), psoriasis (46%), and atopic dermatitis (50%) reported CAM usage.² However, neither dermatology patient disclosure rates of CAM usage nor prevalence of SRH have been previously studied, though some general healthcare studies

have found that 40–60% of patients use SRH.^{3,4} This study sought to characterize utilization and disclosure rates of SRH and CAM in dermatology.

A 12-question survey (Table 3) was conducted in March 2021 via the SurveyMonkey® (San Mateo, CA) Contribute and Rewards Panels, through which a random sample of 1595 participants was taken out of about 2.5 million representative Americans from across the nation. The survey was piloted by Venkatesh et al in the George Washington University Medical Faculty Associates Dermatology Department.⁵ Of the 1595 participants surveyed, 1525 completed the survey (96.3% response rate). One screening question was used: “Have you ever seen a dermatologist?” A multivariate logistic model was used to calculate adjusted odds

TABLE 1.

Demographics and Logistic Regression of Nontraditional Healing Usage (n=1120)					
Variable		Demographics		Predictors of NTH usage	
		Frequency (%)		aOR (95% CI)	P value
Intercept		NA		0.57 (0.24-1.39)	0.22
Age	18-24	142 (12.68)		1 [Reference]	NA
	25-34	222 (19.82)		0.96 (0.57-1.61)	0.88
	35-44	159 (14.20)		0.66 (0.38-1.14)	0.14
	45-54	287 (25.63)		0.63 (0.37-1.04)	0.07
	55-64	195 (17.41)		0.55 (0.32-0.96)	0.04
	65+	115 (10.27)		0.25 (0.12-0.53)	< .001
Education level	Less than high school diploma	146 (12.68)		2.43 (0.66-8.87)	0.18
	High school diploma or equivalent	145 (12.68)		0.96 (0.47-1.95)	0.90
	Technical training or some of college	148 (12.68)		1.20 (0.59-2.42)	0.61
	Associate degree	142 (12.68)		1.11 (0.54-2.30)	0.78
	Bachelor's degree	143 (12.68)		0.84 (0.44-1.63)	0.61
	Master's degree	147 (12.68)		0.89 (0.44-1.82)	0.75
	Doctoral or professional degree	144 (12.68)		1 [Reference]	NA
Gender	Male	459 (40.98)		0.73 (0.55-0.96)	0.03
	Female	635 (56.70)		1 [Reference]	NA
	Non-binary	13 (1.16)		5.07 (0.98-26.32)	0.60
	Prefer not to answer	13 (1.16)		NA	NA

TABLE 1. (CONTINUED)

Demographics and Logistic Regression of Nontraditional Healing Usage (n=1120)				
Variable		Demographics	Predictors of NTH usage	
		Frequency (%)	aOR (95% CI)	P value
Employment status	Employed Full Time (≥ 40 hours/week)	533 (47.59)	1 [Reference]	NA
	Self-employed	60 (5.36)	1.57 (0.87-2.85)	0.13
	Employed part time (< 40 hours/week)	157 (14.02)	0.78 (0.51-1.19)	0.26
	Student	50 (4.46)	0.40 (0.19-0.85)	0.02
	Retired	144 (12.86)	0.38 (0.21-0.71)	0.002
	Unable to work	55 (4.91)	0.27 (0.13-0.55)	< .001
	Unemployed and currently looking for work	62 (5.54)	0.59 (0.31-1.10)	0.09
	Unemployed and not currently looking for work	1	0.56 (0.28-1.13)	0.11
	Other	14 (1.25)	NA	NA
Income	≤ \$15,000	87 (7.77)	1.58 (0.75-3.33)	0.22
	\$15,000 - \$29,999	145 (12.95)	1.79 (0.94-3.38)	0.08
	\$30,000 - \$49,999	182 (16.25)	1.58 (0.87-2.84)	0.13
	\$50,000 - \$74,999	228 (20.36)	1.27 (0.72-2.24)	0.41
	\$75,000 - \$99,999	198 (17.68)	2.41 (1.38-4.20)	0.002
	\$100,000 - \$150,000	164 (14.64)	1.46 (0.82-2.61)	0.20
	≥ \$150,000	116 (10.36)	1 [Reference]	NA
Insurance status	Private	650 (58.04)	1 [Reference]	NA
	Medicaid	136 (12.14)	1.74 (1.10-2.74)	0.02
	Medicare	240 (21.43)	3.65 (2.41-5.52)	< .001
	Self-pay	52 (4.64)	1.03 (0.53-2.00)	0.93
	Uninsured	42 (3.75)	2.53 (1.28-5.02)	0.008
Region	Midwest	205 (18.30)	1 [Reference]	NA
	Northeast	296 (26.43)	0.88 (0.59-1.32)	0.54
	Southeast	292 (26.07)	0.86 (0.57-1.29)	0.46
	Southwest	122 (10.89)	1.16 (0.70-1.93)	0.56
	West	188 (16.79)	1.16 (0.74-1.81)	0.51
	Other	17 (1.52)	NA	NA

TABLE 2.

Usage and Disclosure of NTH, CAM, and SRH	
Question	Answer Frequency (%)
Which statement describes your relationship with spiritual/religious healing (n=406)	
I have used SRH <i>instead of</i> prescribed medication	133 (32.8)
I have used SRH <i>in combination with</i> prescribed medication	190 (46.8)
I have used SRH, but not for a skin condition	104 (25.6)
I have NOT used SRH	89 (21.9)
Did you notify your dermatologist of your usage of SRH for skin condition (n=317)	
Yes	194 (61.2)
No	123 (38.8)
Which statement describes your relationship with CAM (n=408)	
I have used CAM <i>instead of</i> prescribed medication	134 (32.8)
I have used to CAM <i>in combination with</i> prescribed medication	214 (52.5)
I have used CAM, but not for a skin condition for which I was prescribed medication	87 (21.3)
I have NOT used CAM	74 (18.1)
Did you notify your dermatologist of your usage of CAM? (n=334)	
Yes	243 (72.8)
No	91 (27.2)

TABLE 3.

Sociocultural and Access to Healthcare Survey. Survey Description: This survey is conducted by the Dermatology Department at the Medical Faculty Associates of the George Washington University. It aims to understand dermatology patients' attitudes and perceptions of their care as well as their use of alternative healing methods.

Survey Question:

Have you ever seen a dermatologist?

Yes → proceed with survey

No

Demographics:

What is your gender?	What is your household income?
Female	Less than \$20,000
Male	\$20,000 to \$34,999
Non-binary	\$35,000 to \$49,999
Prefer not to say	\$50,000 to \$74,999
Prefer not to answer	\$75,000 to \$99,999
Prefer to self-describe: please specify _____	Over \$100,000
What is your age?	What is your insurance status?
18 to 24	Private
25 to 34	Medicare
35 to 44	Medicaid
45 to 54	Self Pay
55 to 64	Uninsured
65 to 74	Nontraditional Healing:
75 or older	Screen: Do you use nontraditional treatments to manage skin problems? (i.e. unprescribed spiritual/religious healing, faith healing, prayer, meditation, herbal/plant-based remedies, and remedies considered homemade, holistic, Ayurvedic, homeopathic, or folk, etc.)
Prefer not to answer	Yes → Move on to next questions, otherwise skip.
What is the highest degree you have received?	No
Less than high school diploma	Which statement describes your relationship with spiritual/religious healing? Note: Spiritual/religious healing includes faith healing, prayer, meditation, enlisting help of a religious authority, etc. (Check all that apply)
High school diploma or equivalent	I have used spiritual/religious healing instead of prescribed medication
Technical training or some of college	I have used to spiritual/religious healing in combination with prescribed medication
Associate's degree	I have used spiritual/religious healing, but not for a skin condition
Bachelor's degree	I have NOT used spiritual/religious healing
Master's degree	If any but "I have not used in spiritual/religious healing" → Did you notify your physician of your usage of spiritual/religious healing?
Doctoral or professional degree	Yes
What is your current employment status?	No
Employed full time (40 or more hours per week)	Which statement describes your relationship with complementary and alternative medicines (CAM). Note: Complementary and alternative medicines include unprescribed or unrecommended vitamins/supplements, herbal/plant-based remedies, behavioral changes, etc. Other names also include homemade, holistic, Ayurvedic, homeopathic, folk remedy, home cure, etc. (Check all that apply).
Employed part time (up to 39 hours per week)	I have used CAM instead of prescribed medication
Unemployed and currently looking for work	I have used to CAM in combination with prescribed medication
Unemployed and not currently looking for work	I have used CAM, but not for a skin condition for which I was prescribed medication
Student	I have NOT used CAM
Retired	If any but "I have not used CAM" → Did you notify your physician of your usage of CAM?
Self-employed	Yes
Unable to work	No
Other: please specify	

ratios (aOD) and 95% confidence intervals (CI) for demographics associated with NTH usage. All analyses were performed using R (R Foundation for Statistical Computing, Vienna, Austria).

Overall, the 1525 submissions were filtered for the screening question (396), being under <18 years (10), and nonresponse (1), resulting in 1120 submissions for analysis. Of these, 408 (36.4%) reported using NTH to manage skin problems. Age, gender, employment, income, and insurance were significant factors in the odds of NTH usage (Table 1). Those who reported using NTH were asked to describe their relationship with SRH and CAM.

Of the 408 patients who reported using NTH, 406 patients answered the SRH section. Of these participants who used NTH, 78.1% had used SRH for skin conditions; of SRH users, 61.2% had notified their dermatologist of SRH usage (Table 2). Subanalysis of those who “used SRH instead of prescribed medication” revealed that 18.8% did not disclose their substitution behavior to their dermatologist. All 408 patients who reported using NTH answered CAM subquestions, of which 81.9% had used CAM. Of these CAM users, 72.8% notified their dermatologists of their usage. Subanalysis of those who “used CAM instead of prescribed medication” revealed 21.6% did not disclose their substitution behavior to their dermatologist. These data align with existing data on the prevalence of SRH (40–60%) and CAM (35–69%) utilization in healthcare overall.^{1,2,6}

A significant proportion of NTH users substituted SRH (32.7%) and CAM (32.8%) for prescribed dermatological medication. While SRH and CAM may have potential psychological and physiological benefits, medication nonadherence is a leading driver of treatment failure, including increased disease severity, chronicity, mortality, and cost.^{1,2,7} Nonadherence should be identified and addressed during dermatologist visits to help patients make informed and optimal care decisions. Dermatologists should be sure to explicitly solicit data on adherence behaviors and barriers to adherence.

Moreover, many patients who used NTH did not disclose to their dermatologist usage of SRH (38.8%) and CAM (27.2%). Some CAM have important drug interactions or physiological effects, increasing the importance of accurate patient CAM usage data.⁸ Dermatologists should work to include NTH questions in history taking, assist patients in evaluating the scientific validity of NTH information, and facilitate disclosure of adherence and NTH behavior by allaying fear of judgment.

Lower SES patients may be disproportionately incentivized to use NTH when facing unaffordable drug prices and cost sharing. Lower income, unemployed, and underinsured/uninsured status were significantly associated with increased NTH usage (Table 1),

which has also been documented in previous studies.⁵ This evidence suggests that dermatologists should be particularly vigilant to discuss NTH usage among lower SES populations. Further research is needed to understand the drivers of these substitution behaviors among different populations, as well as develop evidence-based strategies to identify and mitigate these behaviors.

DISCLOSURES

The authors have no conflict of interest to declare. IRB Status Statement: This study was performed with approval from The George Washington University Institutional Review Board (IRB protocol # NCR191748).

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