

Dermatologist Practices During Total Body Skin Examinations: A Survey Study

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ABSTRACT

Though screening for skin cancer is an essential practice in dermatology, limited data are published on dermatologists' total body skin examination (TBSE) behaviors. We surveyed 6500 dermatologists on their TBSE practices, including questions about less commonly examined body sites. We found varied TBSE practices among all dermatologists and discrepancies in examinations between dermatologists of opposite genders.

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INTRODUCTION

Screening for skin cancer is an essential practice in dermatology.[1] However, limited data are published on dermatologists' total body skin examination (TBSE) practices,[2] and no data are published on how TBSE practices vary by physician demographics. We report TBSE trends in a sample of U.S. dermatologists.

A total of 6500 U.S. dermatologists who were part of a private online meeting planning group database were emailed a questionnaire assessing their TBSE practices, including questions about less commonly examined body sites, chaperone use, and barriers to practice. We assumed most dermatologists consistently examined the head, neck, trunk, and extremities, so examination of these areas was not queried. Statistical analyses were performed using Stata 11.0 for Mac (Stata Corp, College Station, TX). Categorical variables were compared with the χ^2 test, and *P* values below 0.05 were significant.

Of the dermatologists emailed, 623 responded (9.6%): 53% (n=331) males and 46% (n=288) females. Prior studies validate that our study sample size is large enough to be representative of the surveyed population. Standard statistical analysis for a suggested sample size of proportions with 95% confidence requires a target response rate of at least 363 respondents.[3] Most respondents (77%) worked in private practice; 52% had practiced for at least twenty years. Providers reported examining the scalp, interdigital spaces, cutaneous lips, and nails in >75% of cases, the ocular canthi and bulbar conjunctiva in >50% of cases, and the oral mucosa and gingivae, palpebral conjunctiva, and external genitalia in <50% of cases. The scalp and genitalia were examined more often in male than female patients (*P*=0.001) (Table 1).

Compared to male dermatologists, female dermatologists reported more frequently examining the scalp (*P*<0.001), interdigital spaces (*P*< 0.001), cutaneous lips (*P*=0.015), and nails (*P*=0.001; Table 2), but these differences in examination patterns normalized when physicians were sorted by years in practice. During examinations, practitioners reported utilizing chaperones infrequently: 47% of respondents reported always having a chaperone present, and 27% of respondents had a chaperone present for patients of the same sex (*P*<0.005). The greatest impediments to TBSEs included patient preference or refusal (reported by 85% of respondents), patient embarrassment (31%), and time constraints (30%). Patient embarrassment was the only impediment significantly different between practitioners of different genders (*P*<0.001, 40% of male dermatologists vs 19% of female dermatologists).

Our survey found practice differences between male and female dermatologists. We speculate that differences in training, patient preference, and patient and provider comfort contribute to disparities in TBSE practices. Female providers may report more comprehensive examinations than their male counterparts due to recent increases in female dermatology residents and residency training initiatives emphasizing more comprehensive physical exams.[4] Female practitioners also report seeing fewer patients per hour than their male counterparts, which may allow for additional examination time per patient.[5]

In summary, we found varied TBSE practices reported in a large sample of U.S. dermatologists. Discrepancies exist in TBSE practices between dermatologists of opposite genders. Study limitations include small sample size, over-representation of later career practitioners, selection bias, recall bias, and an inability to account for the nature of the doctor-patient interpersonal interaction during clinical visit.

TABLE 1.

Body Site Examination Frequency by All Practitioners (N=623) Compared Between Female versus Male Patients

Body Site and Examination Frequency	Female Patient		Male Patient		*P**
	No.	(%)	No.	(%)	
Scalp					0.001
≤25%	74	12	36	6	
26-75%	93	15	83	13	
>75%	422	68	471	76	
Unknown	34	5	33	5	
Interdigital Spaces					0.986
≤25%	60	10	61	10	
26-75%	58	9	61	10	
>75%	468	75	466	75	
Unknown	37	6	35	5	
Cutaneous Lips					0.767
≤25%	10	2	12	2	
26-75%	25	4	31	5	
>75%	545	87	542	87	
Unknown	43	7	38	6	
Oral Mucosa					0.759
≤25%	348	56	334	53	
26-75%	117	19	116	19	
>75%	120	19	135	22	
Unknown	38	6	38	6	
Ocular Conjunctiva					0.919
≤25%	186	30	184	30	
26-75%	93	15	101	16	
>75%	308	49	300	48	
Unknown	36	6	38	6	
Palpebral Conjunctiva					0.908
≤25%	304	49	299	48	
26-75%	79	13	87	14	
>75%	201	32	201	32	
Unknown	39	6	36	6	
Nails					0.853
≤25%	19	3	24	4	
26-75%	69	11	69	11	
>75%	498	80	489	78	
Unknown	38	6	41	7	
Genitalia					0.001
≤25%	327	52	258	41	
26-75%	128	21	157	25	
>75%	132	21	169	27	
Unknown	36	6	39	6	

* *P* values obtained from χ^2 tests.

TABLE 2.

Body Site Examination Frequency Among All Patients Compared Between Female versus Male Practitioners

Body Site and Examination Frequency	Female Patient (n=288)		Male Patient (n=331)		*P**
	No.	(%)	No.	(%)	
Scalp					<0.001
≤25%	8	3	27	8	
26-75%	30	10	49	15	
>75%	239	83	233	70	
Unknown	11	4	22	7	
Interdigital Spaces					<0.001
≤25%	9	3	50	15	
26-75%	17	6	38	11	
>75%	251	87	221	67	
Unknown	11	4	22	7	
Cutaneous Lips					0.015
≤25%	0	0	9	3	
26-75%	6	2	17	5	
>75%	271	94	283	85	
Unknown	11	4	22	7	
Oral Mucosa					0.72
≤25%	151	52	175	53	
26-75%	58	20	66	20	
>75%	67	23	68	20	
Unknown	12	4	22	7	
Ocular Conjunctiva					0.259
≤25%	139	27	100	30	
26-75%	33	15	48	15	
>75%	104	54	154	49	
Unknown	12	4	22	6	
Palpebral Conjunctiva					0.41
≤25%	304	48	154	47	
26-75%	79	11	51	15	
>75%	201	36	104	31	
Unknown	39	4	22	6	
Nails					0.001
≤25%	2	1	12	3	
26-75%	18	6	48	15	
>75%	257	89	249	75	
Unknown	11	4	22	7	
Genitalia					0.229
≤25%	99	34	131	40	
26-75%	88	31	81	24	
>75%	90	31	98	30	
Unknown	11	4	21	6	

*P values obtained from χ^2 tests.

DISCLOSURES

The authors have no relevant conflicts of interest to declare.

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SUPPLEMENTARY APPENDIX

Survey Instrument

Thank you for agreeing to participate in this short survey. All responses are anonymous and no identifying information including email addresses, IP addresses, or personal information from respondents will be collected. We estimate that the total time required to complete this survey is less than five minutes.

1. What is your gender?
   - Male
   - Female

2. What is your level of training?
   - Resident dermatologist
   - Attending dermatologist
   - Academic faculty group practice
   - Private practice
   - Outpatient hospital-based clinic
   - Other

3. How many years have you been practicing?
   - Less than 5
   - 5 to 10
   - 11 to 20
   - Greater than 20

4. Assuming an adult patient has no personal or family history of skin cancers, how often would you perform a total body skin examination (TBSE)?
   - Every 3 to 4 months
   - Every 6 months
   - Annually
   - Every 2 to 3 years
   - Rarely / never

5. Assuming an adult patient is at high risk for skin cancers (family history of skin cancer, history of sunburns, actinic damage, dysplastic and/or multiple nevi, fair skinned), but has no personal history of skin cancer, how often would you perform a TBSE?
   - Every 3 to 4 months
   - Every 6 months
   - Annually
   - Every 2 to 3 years
   - Rarely / never

6. Please mark the percentage of time you routinely examine the following parts of the body for female patients (Never, 1-25%, 26-50%, 51-75%, 76-99%, always on dropdown menu)
   - Scalp
   - In between toes
   - Cutaneous lips
   - Inner oral mucosa and gingivae
   - Ocular canthi and bulbar conjunctiva
   - Palpebral conjunctiva
   - Nails
   - External genitalia

7. Please mark the percentage of time you routinely examine the following parts of the body for male patients (Never, 1-25%, 26-50%, 51-75%, 76-99%, always on dropdown menu)
   - Scalp
   - In between toes
   - Cutaneous lips
   - Inner oral mucosa and gingivae
   - Ocular canthi and bulbar conjunctiva
   - Palpebral conjunctiva
   - Nails
   - External genitalia

8. When performing a TBSE, please indicate what % of the time do you have a chaperone present:
   - for patients of the same sex (answers: Never, 1-25%, 26-50%, 51-75%, 76%-99%, always)
   - for patients of the opposite sex (answers: Never, 1-25%, 26-50%, 51-75%, 76%-99%, always)

9. You have decided that a patient is an appropriate candidate for a TBSE. What are the major impediments to not performing a TBSE. Please check all that apply.
   - your embarrassment
   - patient's embarrassment
   - lack of chaperone
   - time constraints
   - patient refuses/patient chooses not to have exam
   - practice financial limitation: needing to hire additional staff to chaperone
   - practice financial concern: inadequate reimbursement for time-intensive examination
   - lack of evidence/clear consensus guidelines for utility of TBSE in improving outcomes