

# Knowledge, Attitude, and Practice Patterns on Psychodermatology among Filipino Dermatologists: A Cross-sectional Study

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## ABSTRACT

**Background.** Psychodermatology is a field that focuses on the interaction of the skin and the mind. Psychodermatology patients are often challenging to manage because they often lack insight and are not amenable to psychiatric treatment or referral. Therefore, it is important that dermatologists become aware of the psychosocial impact of cutaneous disease and be knowledgeable in the fundamentals of psychodermatologic diagnosis and therapy. However, studies done in several countries report a general lack of perceived knowledge, awareness, and confidence in the management of psychodermatology disorders among dermatologists.

**Objective.** This study aims to determine the knowledge, attitudes, and practices of Filipino dermatologists towards psychodermatology using a self-administered questionnaire.

**Methods.** This is a mixed methods study using qualitative and quantitative measures. A self-administered questionnaire was validated and disseminated among the dermatologists in the country. Descriptive analysis was done.

**Results.** Of the 153 participating dermatologists, majority (70.59%) reported psychodermatologic patients comprised <10% of their practice. While more than half (56.2%) have a clear understanding of psychodermatology and are comfortable (57.52%) in approaching patients with these conditions, only 58 (37.91%) participants are able to demonstrate adequate knowledge on psychodermatology. Patients with primary psychiatric disorders are less frequently encountered than dermatologic disorders with psychiatric component or secondary psychiatric disorders. Most commonly prescribed medications are anti-histamines. Other psychotropic medications are rarely or never prescribed by the participants. All participants agree that psychodermatology is important in the practice of dermatology; 127 (62.1%) have attended at least one Continuing Medical Education (CME) on psychodermatology and 114 (74.51%) expressed willingness to attend CME training in psychodermatology. One hundred nine (71.24%) participants think that the best practice approach is a multidisciplinary approach to psychodermatology. The top recommendations for better healthcare delivery in psychodermatology were better access to mental health specialists (86.27%), more training opportunities and better training during residency (75.16%), and increase collaboration with psychiatrists (71.9%). The knowledge score was found to be associated with the duration of dermatology practice and attendance in CME proceedings but was not associated with the perceived adequacy of knowledge gained during training. Longer duration of practice may be associated with the knowledge score owing to the greater exposure to cases and more access to training opportunities.

**Conclusions.** There are many challenges to providing psychodermatologic care in the Philippines but the positive attitude towards psychodermatology, coupled with increased access to education and training opportunities, and the multidisciplinary approach to these cases may improve the quality of dermatologic care that we provide.

**Keywords:** *psychodermatology, knowledge, attitude, practices, KAP*



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## INTRODUCTION

Psychodermatology (PD) is a field that focuses on the interaction of the skin and the mind. Up to a third of patients diagnosed with skin disorders are associated with psychosocial and psychiatric morbidity.<sup>1</sup>

There is no universal consensus on the categories of psychodermatologic conditions. Psychodermatology disorders can be broadly classified into three categories. Psychophysiological dermatoses which include diseases that can be exacerbated by psychological stress such as psoriasis, atopic dermatitis, or acne. Primary psychiatric skin disorders includes disorders for which there is an underlying psychiatric component resulting in self-inflicted skin lesions (e.g., obsessive-compulsive disorder and factitious disorders). Some dermatoses lead to secondary psychiatric disorders. These include disfiguring skin conditions such as psoriasis or alopecia areata that exacerbate psychiatric disorders such as anxiety and depression.<sup>2</sup>

Psychodermatology patients are often challenging to manage because they often lack insight and are not amenable to psychiatric treatment or referral.<sup>1</sup> Therefore, it is important that dermatologists become aware of the psychosocial impact of cutaneous disease and be knowledgeable in the fundamentals of psychodermatologic diagnosis and therapy. However, studies done in several countries report a general lack of perceived knowledge, awareness, and confidence in the management of psychodermatology disorders among dermatologists. Most of these existing studies on PD focus on describing the participants' perception of knowledge and confidence in prescribing psychotropic medications instead of conducting objective testing to gauge the level of knowledge.<sup>2-7</sup>

In the Philippines, there is one completed, unpublished study in 2010 by Jara et al. assessing the attitudes and practices of Filipino dermatologists towards psychocutaneous disorders using a self-administered questionnaire. Results revealed that less than half of survey participants believe they have received sufficient training in identifying dermatologic patients with anxiety or depression (37.6%) and sufficient training in identifying dermatology patients who need referral to a psychiatrist (45.5%). However, majority (96%) of the study participants think it is important to have psychocutaneous training during their residency training.<sup>8</sup> The study did not conduct an objective assessment of clinical knowledge on psychodermatology among dermatologists. Additionally, there is still paucity on data on psychotropic medication prescribing patterns, current source of knowledge/training on psychodermatology, and preferred sources of information and training modality. Similar to most residency training programs, psychodermatology is not part of the curriculum in the Philippines. Furthermore, psychodermatology services and resources are limited, further compromising the quality of care received by patients with these conditions.

## METHODS

### Study Design and Setting

A descriptive cross-sectional study among dermatologists under the Philippine Dermatological Society (PDS) was conducted in January to February 2023 to investigate their knowledge, attitudes, and practices concerning psychodermatology using a self-administered questionnaire. Participants in the study include dermatology residents, fellows, and consultants under the PDS practicing in the Philippines. Respondents who were unable to complete the survey, those who have not practiced in the last five years and who did not give consent were excluded. Participants were permitted to withdraw from the study at any time.

### Population and Sampling Technique

Participants were recruited using convenience sampling method. A link to the survey questionnaire was passed on to the PDS secretariat and was disseminated to the residents, fellows, and consultants.

Of the estimated 1281 practicing dermatologists under the PDS in the country, there was a total of 153 respondents.

### Study Instrument

The self-administered questionnaire was based on a review of published articles on psychodermatology knowledge, attitudes, and practices.<sup>5,7,9</sup> Some modifications to this assessment tool was done to fit the Philippine setting. The questions were written in English. The questionnaire is divided into the following sections: 1) participant's demographic profile, 2) frequency of psychodermatology conditions encountered in practice, 3) practice patterns, 4) perception of knowledge on psychodermatology, 5) past and desired training and education, and 6) recommendations for research and improvement in quality of care. Answer formats included yes/no, 3-point and 5-point Likert-scales, multiple choice, and free text.

Knowledge was evaluated through a "knowledge score", computed by assigning one point for each correct answer to the 10 multiple choice items of knowledge concerning psychodermatology divided into two questions on the categorization of PD conditions, four questions on diagnosis, and four on management. A score of at least 70% will be considered adequate knowledge, and inadequate knowledge with less than 70% of knowledge scores. Participants were asked to rate their confidence and level of comfort in diagnosing and treating psychodermatology patients in a Likert scale. This aims to determine the level of self-perceived knowledge on psychodermatology. Attitude was evaluated using a Likert scale on: 1) willingness to attend training and 2) the importance of psychodermatology in dermatologic practice. Likert scales were used to evaluate the following practice patterns: 1) frequency of prescribing psychotropic medications, 2) frequency of patients declining psychotropic medications, 3) frequency of offering psychiatric referral,

and 4) frequency of patients declining psychiatric referral. A preliminary pilot test was conducted on 30 respondents from the Philippine General Hospital Department of Dermatology. Suggestions for improvement of the questionnaire was collected.

Internal consistency of the questionnaire was measured using Cronbach's alpha. A value of at least 0.70 is sufficient to indicate adequate internal consistency.

The following are the results of the reliability analysis of the questionnaire:

- Frequency of Psychodermatology Conditions Encountered in Practice (19 items): Cronbach's Alpha .924
- Practice Patterns in Psychodermatology (10 items): Cronbach's Alpha .796
- Perception of Knowledge on Psychodermatology (3 items): Cronbach's Alpha .795

Internal consistency of the questionnaire was adequate. Item discrimination and item difficulty analysis was also conducted on the Knowledge on Psychodermatology section which served as a guide in the revision of the questionnaire. Face validation was done to assess dependability of the survey questions. Both the psychodermatologist and psychometrician deemed the questionnaire satisfactory.

### Data Collection

The principal investigators and a research assistant from the PGH Expanded Hospital Research Office collected the data. Data was collected using a self-administered questionnaire prepared by one of the authors and was administered through a Google survey link. It was sent through e-mail to all dermatologists under the Philippine Dermatological Society. The data collectors were trained in the use of the data collection tools in order to ensure that the privacy and confidentiality of the participants are maintained.

### Statistical Analysis

Data underwent an editing process using both manual and electronic data editing. Edited data was encoded using spreadsheets. The data encoding structure included data consistency checks including range checks and acceptable codes. After cleaning typographical errors, repeated entries, and partial survey responses, all data were imported into the Statistical Package for the Social Sciences version 26.0 (IBM SPSS Statistics for Windows, version 26.0; IBM Corp., Armonk, NY, USA) for further analysis.

Categorical data were presented as frequency and proportions. Chi-square test was used for categorical data, to assess the association between the knowledge score and variables of interest. A p-value of <0.05 is considered significant.

## RESULTS

### Response Rate

Of the estimated 1281 practicing dermatologists under the Philippine Dermatological Society in the country, there was a total of 153 respondents with an estimated return rate of 11.94%.

### Participants' Demographic Profile

The demographics of the Filipino dermatologists and dermatology residents who participated in the study are listed in Table 1. Among 153 survey participants, almost

**Table 1.** Sociodemographic Characteristics of the Survey Population

	n	%
<b>Age</b>		
<30 years	38	24.84
30-40 years	71	46.41
41-50 years	16	10.46
51-60 years	17	11.11
>60 years	11	7.19
<b>Status</b>		
Resident	65	42.48
Fellow	55	35.95
Diplomate	33	21.57
<b>Duration of practice (including residency)</b>		
<5 years	79	51.63
5-10 years	26	16.99
>10 years	48	31.37
<b>Type of Practice</b>		
Private (Solo)	59	38.56
Private (Group)	9	5.88
Community Health Center	1	0.65
Hospital-based	74	48.37
University-based	0	
Multispecialty practice	10	6.54
<b>Area of Practice</b>		
NCR	98	64.05
CAR	2	1.31
Region I	1	0.65
Region II	3	1.96
Region III	7	4.58
Region IV	17	11.11
Region V	1	0.65
Region VI	3	1.96
Region VII	2	1.31
Region VIII	2	1.31
Region IX	1	0.65
Region X	2	1.31
Region XI	10	6.54
Region XII	1	0.65
Region XIII	2	1.31
BARM	1	0.65

half, 71 (46%) were 30-40 years old, and 38 (25%) were less than 30 years old. There were 65 (42%) residents, 55 (36%) fellows, and 33 (22%) diplomates of the PDS who completed the survey. Half (52%) of respondents have been practicing for less than 5 years. Seventy-four (48%) participants had a predominantly hospital-based practice while 59 (39%) participants were private solo practitioners. Majority (64%) of the survey participants practiced in the National Capital Region. Fifty-five participants (35%) practiced in the other provinces. (Table 1)

**Table 2.** Frequency of PD Conditions

	n	%
<b>Overall percentage of PD patients in responders' practice</b>		
Never	15	9.80
<10%	108	70.59
10-25%	26	16.99
26-50%	3	1.96
>50%	1	0.65
<b>Frequency of primary PD conditions</b>		
Never	35	22.88
Rarely (1 patient/ 6 months)	100	65.36
Occasionally (1 patient/ 1 month)	15	9.80
Frequently (1 patient/ week)	3	1.96
Very frequently (1 patient/ day)	0	
<b>Frequency of secondary PD conditions</b>		
Never	9	5.88
Rarely (1 patient/ 6 months)	54	35.29
Occasionally (1 patient/ 1 month)	63	41.18
Frequently (1 patient/ week)	23	15.03
Very frequently (1 patient/ day)	4	2.61

### Frequency of Psychodermatology Conditions Encountered in Practice

The largest proportion of participants (70.59%) reported that psychodermatologic conditions consist of less than 10% of their practice. Of the 153 participants, almost a quarter (22.88%) have never treated primary psychodermatology cases and 5.88% have never encountered secondary psychodermatology cases. Primary psychodermatology conditions are encountered rarely (1 patient/6 months) by the majority of respondents (65.36%). On the other hand, secondary psychodermatology conditions are seen occasionally by 63 (41.18%) participants and only rarely by 54 (35.2%). There are higher frequencies of secondary than primary psychodermatology conditions in their practice. Primary psychiatric disorders are less frequently encountered by participants of the study. (Tables 2 - 6)

### Practice Patterns

Majority (81.7%) have never prescribed any psychotropic medication. Sixty four participants (41.83%) have offered psychiatric consultation to a few of their cases. Only 18 respondents have never referred primary (11.76%) or secondary (11.76%) psychodermatology conditions to a psychiatrist for further assessment. Primary psychodermatologic conditions are more frequently referred to a psychiatrist for further assessment (Table 6). Most common psychophysiological disorders referred to a psychiatrist are psoriasis, acne vulgaris, and atopic dermatitis. For primary psychiatric disorders, trichotillomania, delusions of parasitosis, and excoriation disorder are most frequently reported. The secondary psychiatric disorders most commonly referred to a psychiatrist

**Table 3.** Frequency of Dermatologic Disorders with a Psychiatric Component

	n (%) Never	n (%) <5/month	n (%) 6-10/month	n (%) 10-20/month	n (%) >20/month
<i>Acne</i>	8 (5.23)	64 (41.83)	31 (20.26)	30 (19.61)	20 (13.07)
<i>Alopecia areata</i>	25 (16.34)	85 (55.56)	33 (21.57)	10 (6.54)	0
<i>Atopic dermatitis</i>	14 (9.15)	71 (46.41)	39 (25.49)	23 (15.03)	6 (3.92)
<i>Hyperhidrosis</i>	38 (24.84)	97 (63.4)	15 (9.8)	2 (1.31)	1 (0.65)
<i>Psoriasis</i>	11 (7.19)	55 (35.95)	50 (32.68)	28 (18.3)	9 (5.88)
<i>Lichen simplex chronicus</i>	24 (15.69)	70 (45.75)	39 (25.49)	15 (9.8)	5 (3.27)
<i>Seborrheic dermatitis</i>	20 (13.07)	62 (40.52)	36 (23.53)	26 (16.99)	9 (5.88)

**Table 4.** Frequency of Primary Psychiatric Disorders

	n (%) Never	n (%) <5/month	n (%) 6-10/month	n (%) 10-20/month	n (%) >20/month
<i>Delusions of parasitosis</i>	87 (56.86)	66 (43.14)	0	0	0
<i>Morgellons disease</i>	125 (81.7)	28 (18.3)	0	0	0
<i>Body dysmorphic disorder</i>	75 (49.02)	69 (45.1)	7 (4.58)	1 (0.65)	1 (0.65)
<i>Trichotillomania</i>	62 (40.52)	86 (56.21)	5 (3.27)	0	0
<i>Excoriation disorder</i>	45 (29.41)	76 (49.67)	24 (15.69)	7 (4.58)	1 (0.65)
<i>Dermatitis artefacta</i>	90 (58.82)	57 (37.25)	5 (3.27)	1 (0.65)	0

**Table 5.** Frequency of Secondary Psychiatric Disorders

	n (%) Never	n (%) <5/month	n (%) 6-10/month	n (%) 10-20/month	n (%) >20/month
<i>Anxiety</i>	15 (9.8)	71 (46.41)	52 (33.99)	12 (7.84)	3 (1.96)
<i>Depression</i>	14 (9.15)	83 (54.25)	44 (28.76)	10 (6.54)	2 (1.31)
<i>Social phobia</i>	36 (23.53)	78 (50.98)	29 (18.95)	9 (5.88)	1 (0.65)

**Table 6.** Practice Patterns in Psychodermatology (PD)

	n	%
<b>PD – management by self</b>		
<i>Have you ever prescribed a psychotropic medication?</i>		
<i>If yes, how frequently?</i>		
Not at all	125	81.7
Rarely, only severe cases	17	11.11
Occasionally, few cases	8	5.23
Frequently, most cases	3	1.96
Very frequently, all cases	0	
<b>PD – management by referral</b>		
<i>Have you ever offered a patient a psychiatric consultation?</i>		
Not at all	33	21.57
Rarely, only severe cases	45	29.41
Occasionally, few cases	64	41.83
Frequently, most cases	8	5.23
Very frequently, all cases	3	1.96
<i>How often do you refer patients with primary psychodermatological conditions to psychiatrist for further assessment?</i>		
Never, I self-manage cases	18	11.76
Rarely, I only refer severe cases	44	28.76
Occasionally	31	20.26
Frequently – most cases	29	18.95
Very frequently, all cases	31	20.26
<i>How often do you refer patients with secondary psychodermatological conditions to psychiatrist for further assessment?</i>		
Never, I self-manage cases	18	11.76
Rarely, I only refer severe cases	52	33.99
Occasionally	48	31.37
Frequently – most cases	19	12.42
Very frequently, all cases	16	10.46

are depression, anxiety, and social phobia (Table 7). The most commonly prescribed medications are anti-histamines. Other psychotropic medications are rarely or never prescribed by the participants. (Table 8)

**Knowledge**

Only 58 (37.91%) participants were able to demonstrate adequate knowledge on psychodermatology based on the 10-point quiz (Table 9). Majority of the participants were confident that they have a clear understanding of psychodermatology (56.2%) and are comfortable in approaching patients with these conditions (67.98%) but they are not confident (57.52%) in prescribing psychotropic medications (Table 10).

Half of respondents have never attended psychodermatology conferences (50.33%), workshops (88.89%), seminars (62.09%), modules during training (57.52%), or lecture during medical school (50.33%) but 127 (62.1%) have attended at least one CME on psychodermatology. More respondents think that the knowledge (54.24%) and practices (58.17%) learned during residency in managing psychodermatology patients are adequate (Table 11).

**Continuing Medical Education and Recommendations**

All participants (81.7%, very important and 18.3%, important) agree that psychodermatology is important in the practice of dermatology and 114 (74.51%) expressed willingness to attend CME training in psychodermatology (Table 11). Tables 12 and 13 list the subjects of interest for continuing medical education (CME) on psychodermatology. The respondents’ preferred source of information on psychodermatology are journal articles (79.74%), followed by symposia (64.05%), and guidebook or manual (54.25%)

**Table 7.** Frequency of Prescribing Psychotropic Medications

	n (%) Never	n (%) Rarely (<10%)	n (%) Occasionally (10%-25%)	n (%) Frequently (26%-50%)	n (%) Very frequently (>50%)
<i>Antipsychotics</i>	146 (95.42)	5 (3.27)	1 (0.65)	1 (0.65)	0
<i>Antidepressants</i>	138 (90.2)	13 (8.5)	1 (0.65)	1 (0.65)	0
<i>Benzodiazepines/anxiolytics</i>	135 (88.24)	15 (9.8)	2 (1.31)	1 (0.65)	0
<i>Antihistamines</i>	11 (7.19)	18 (11.76)	29 (18.95)	39 (25.49)	56 (36.6)
<i>Mood stabilizers</i>	145 (94.77)	5 (3.27)	2 (1.31)	1 (0.65)	0
<i>N-acetylcysteine</i>	113 (73.86)	32 (20.92)	5 (3.27)	2 (1.31)	1 (0.65)

**Table 8.** Common Psychodermatologic Disorders Referred to a Psychiatrist

	n	%
<i>Alopecia areata</i>	13	8.50
<i>Psoriasis</i>	38	24.84
<i>Atopic dermatitis</i>	19	12.42
<i>Acne vulgaris</i>	25	16.34
<i>Seborrheic dermatitis</i>	2	1.31
<i>Hyperhidrosis</i>	4	2.61
<i>Lichen simplex chronicus</i>	8	5.23
<i>Delusions of parasitosis</i>	29	18.95
<i>Morgellons disease</i>	6	3.92
<i>Body dysmorphic disorder</i>	15	9.80
<i>Trichotillomania</i>	32	20.92
<i>Excoriation disorder</i>	18	11.76
<i>Dermatitis artefacta</i>	9	5.88
<i>Anxiety</i>	47	30.72
<i>Depression</i>	54	35.29
<i>Social phobia</i>	6	3.92
<i>Other</i>	4	2.61

**Table 9.** Knowledge on PD

	n	%
<i>Inadequate &lt;70%</i>	95	62.09
<i>Adequate &gt;70%</i>	58	37.91

**Table 10.** Perception of Knowledge on PD

	n	%
<b>Do you feel confident that you have a clear understanding of psychodermatology?</b>		
1 - not at all confident	13	8.5
2	54	35.29
3	65	42.48
4	18	11.76
5 - completely confident	3	1.96
<b>How comfortable are you while approaching patients with these conditions?</b>		
1 - not at all comfortable	16	10.46
2	33	21.57
3	66	43.14
4	30	19.61
5 - very comfortable	8	5.23
<b>How would you rate your confidence in prescribing psychotropic medications?</b>		
1 - not at all confident	88	57.52
2	45	29.41
3	18	11.76
4	1	0.65
5 - completely confident	1	0.65

**Table 11.** Training in Psychodermatology (PD)

	n	%
<b>Participation in a PD training (Lecture during medical school)</b>		
Never	77	50.33
Once	56	36.6
Several times	20	13.07
<b>Participation in a PD training (Module during residency/fellowship)</b>		
Never	88	57.52
Once	48	31.37
Several times	17	11.11
<b>Participation in a PD training (CME)</b>		
Never	58	37.91
Once	63	41.18
Several times	32	20.92
<b>Participation in a PD training (Seminar)</b>		
Never	95	62.09
Once	42	27.45
Several times	16	10.46
<b>Participation in a PD training (Workshop)</b>		
Never	136	88.89
Once	12	7.84
Several times	5	3.27
<b>Participation in a PD training (Conference)</b>		
Never	77	50.33
Once	47	30.72
Several times	29	18.95
<b>Interest in and willingness to attend a CME training in PD</b>		
No	0	
Maybe	39	25.49
Definitely	114	74.51
<b>Adequacy of knowledge learned during residency for managing psychodermatology patients</b>		
Inadequate	70	45.75
Adequate	65	42.48
More than adequate	18	11.76
<b>Adequacy of practices learned during residency for managing psychodermatology patients</b>		
Inadequate	64	41.83
Adequate	73	47.71
More than adequate	16	10.46
<b>Importance of psychodermatology in the practice of dermatology</b>		
Not at all important	0	
Important	28	18.3
Very important	125	81.7

(Table 14). A majority (88.24%) prefer CME as the training modality but more than half also favor the integration of psychodermatology in residency and fellowship (60.13%) and conference proceedings (55.56%) (Table 15).

One hundred nine (71.24%) participants think that the best practice approach is a multidisciplinary approach to psychodermatology (Table 16). The top recommendations for better healthcare delivery in psychodermatology were better access to mental health specialists (86.27%), more training opportunities and better training during residency (75.16%), and increased collaboration with psychiatrists

**Table 12.** Dermatologists Subject of CME Interest – Condition Specific

	n (%)
<i>Trichotillomania</i>	101 (66.01)
<i>Body dysmorphic disorder</i>	108 (70.59)
<i>Delusion of parasitosis</i>	78 (50.98)
<i>Self-injurious skin lesions</i>	85 (55.56)
<i>Anxiety secondary to skin disease</i>	133 (86.93)
<i>Depression/Adjustment disorder</i>	110 (71.9)
<i>Other</i>	1 (0.65)

**Table 13.** Dermatologists Subject of CME Interest – Medication Specific

	n (%)
<i>Antipsychotics</i>	115 (75.16)
<i>Antidepressants</i>	127 (83.01)
<i>Benzodiazepines/anxiolytics</i>	116 (75.82)
<i>Antihistamines</i>	98 (64.05)
<i>Mood stabilizers</i>	109 (71.24)
<i>N-acetylcysteine</i>	83 (54.25)
<i>Other</i>	0

**Table 14.** Preferred Source of Information on PD

	n (%)
<i>Journal articles</i>	122 (79.74)
<i>Symposia and conference proceedings</i>	98 (64.05)
<i>Guidebook or manual</i>	83 (54.25)
<i>Textbook</i>	73 (47.71)
<i>Internet source</i>	47 (30.72)
<i>Social media</i>	16 (10.46)
<i>Other</i>	1 (0.65)

(71.9%) (Table 17). When asked about the recommendations for future research in psychodermatology, 137 (89.54%) participants suggested to do research on clinical approach to psychodermatology (Table 18).

**Tests of Association**

Chi-square test has been used to test association between variables of interest.

Duration of dermatology practice and adequacy of knowledge (Pass/Fail) were tested for association. At 0.05 level of significance, the p-value of the chi-square test is 0.0007. The p-value is below 0.05, which means that duration of dermatology practice and adequacy of knowledge (Pass/Fail) are associated (Figure 1).

Self-reported adequacy of the knowledge learned during training in managing psychodermatology patients and adequacy of knowledge (Pass/Fail) were tested to check if the two variables are associated. At 0.05 level of significance, the p-value of the chi-square test is 0.4845. The p-value is greater

**Table 15.** Preferred Training Modality

	n (%)
<i>Integration of psychodermatology in residency and fellowship</i>	92 (60.13)
<i>Continuing Medical Education (CME)</i>	135 (88.24)
<i>Workshops</i>	60 (39.22)
<i>Seminars</i>	73 (47.71)
<i>Conferences</i>	85 (55.56)
<i>Other</i>	0

**Table 16.** Ideal Best Practice Approach to PD

	n (%)
<i>Which of the following describes the best approach to PD in your region?</i>	
Dermatologists should manage these cases with psychiatry referral if necessary	15 (9.8)
Psychiatrists should manage these cases with dermatology referral if necessary	13 (8.5)
A multidisciplinary approach	109 (71.24)
Manage in a case-specific manner	16 (10.46)
Further research is needed to know	0
Other	0

**Table 17.** Recommendations for Improving the Quality of Care in Psychodermatology

	n (%)
<i>Better accessibility to mental health specialists including psychiatrists and psychologists</i>	132 (86.27)
<i>Establishing multidisciplinary PD clinics</i>	103 (67.32)
<i>More training opportunities and better training during residency</i>	115 (75.16)
<i>Increase collaboration with psychiatrists including those interested in PD</i>	110 (71.9)
<i>Focusing training on initiating psychoactive medications</i>	71 (46.41)
<i>Circulating practical manuals for approaching PD patients</i>	90 (58.82)
<i>Better information to and inclusion of the patients and their families</i>	88 (57.52)
<i>Dedicate more time to PD patients and increase the duration of the consult</i>	58 (37.91)
<i>Other</i>	2 (1.31)

**Table 18.** Summary of Participants' Recommendations for Future Research in Psychodermatology (PD)

	n (%)
<i>Etiology of PD conditions</i>	67 (43.79)
<i>Clinical approach to PD</i>	137 (89.54)
<i>Condition-specific</i>	82 (53.59)
<i>Miscellaneous</i>	2 (1.31)

than 0.05, which means that adequacy of the knowledge learned during training in managing psychodermatology patients and adequacy of knowledge (Pass/Fail) are not associated (Figure 2).

CME attendance and adequacy of knowledge (Pass/Fail) was tested if the two variables are associated. At 0.05 level of significance, the p-value of the chi-square test is 0.0138. The p-value is below 0.05, which means that CME and adequacy of knowledge (Pass/Fail) are associated (Figure 3).

Frequency of seeing patients with PD condition and adequacy of knowledge (Pass/Fail) cannot be tested as the assumptions were not satisfied. 40 % of the cell counts between the two variables have counts less than 5 so chi-square is not a valid test.

Statistics for Table of Q2 by Pass\_Fail

Statistic	DF	Value	Prob
Chi-Square	2	14.6172	0.0007
Likelihood Ratio Chi-Square	2	15.2387	0.0005
Mantel-Haenszel Chi-Square	1	3.2100	0.0732
Phi Coefficient		0.3091	
Contingency Coefficient		0.2953	
Cramer's V		0.3091	

Figure 1. Test of association between duration of dermatology practice and adequacy of knowledge.

Statistics for Table of Q25 by Pass\_Fail

Statistic	DF	Value	Prob
Chi-Square	2	1.4494	0.4845
Likelihood Ratio Chi-Square	2	1.4541	0.4833
Mantel-Haenszel Chi-Square	1	1.3328	0.2483
Phi Coefficient		0.0973	
Contingency Coefficient		0.0969	
Cramer's V		0.0973	

Figure 2. Test of association between self-perceived adequacy of the knowledge learned during training in managing psychodermatology patients and adequacy of knowledge.

Statistics for Table of Q20 by Pass\_Fail

Statistic	DF	Value	Prob
Chi-Square	2	8.5591	0.0138
Likelihood Ratio Chi-Square	2	9.4732	0.0088
Mantel-Haenszel Chi-Square	1	5.0746	0.0243
Phi Coefficient		0.2365	
Contingency Coefficient		0.2302	
Cramer's V		0.2365	

Figure 3. Test of association between continuing medical education attendance and adequacy of knowledge.

## DISCUSSION

The results of the study described the knowledge, attitudes, and practices of Filipino dermatologists, calling attention to the challenges to psychodermatologic care in the Philippines while highlighting positive indicators for improving the quality of services to our patients.

Our study reported psychodermatologic conditions represent <10% of dermatologic practice in contrast with other studies, which reported that psychodermatologic conditions are seen in 10-25% of patients.<sup>6,9</sup> This may be attributable to most respondents being residents and with less than five years of practice duration and likely less exposure to patients. The low number of cases could also be the result of the inability to recognize psychodermatologic conditions as reflected by poor knowledge scores. The result of a previous study in the Philippines further supports this claim wherein less than half of survey participants believe they have received sufficient training in identifying dermatologic patients with anxiety or depression.<sup>8</sup>

Majority have never prescribed psychotropic medications, and more than half are not confident in prescribing psychotropic medications. The most prescribed medications by dermatologists for psychodermatologic conditions are antihistamines. Other psychotropic medications are rarely or never prescribed by the participants. In the Philippines, one of the possible barriers to prescribing psychotropic medications is the need for a Dangerous Drug (S2) license. Not only is it difficult to apply for, the S2 license and required yellow prescription form are costly.<sup>10</sup> Although this highlights that the best practice approach is the multidisciplinary approach which the respondents agree with, it is still imperative that dermatologists become comfortable and knowledgeable in prescribing medications themselves should they encounter patients who refuse psychiatric evaluation.

Majority of the participants were confident that they have a clear understanding of psychodermatology (56.2%) and are comfortable in approaching patients with these conditions (57.52%) despite only 58 (37.91%) participants being able to demonstrate adequate knowledge on psychodermatology based on the 10-point quiz. Some never offered psychiatric consult or referred psychodermatologic cases to a psychiatrist for assessment. This is striking, in comparison with most studies demonstrating lack of knowledge and confidence in the management of such cases.<sup>8,11</sup> Of concern is the discrepancy between the perceived knowledge and objective knowledge scores of participants. This could result in misdiagnoses and inappropriate treatment with grave medicolegal consequences, emphasizing the importance of co-managing these cases with psychiatrists and underscoring the need to improve the quality of and access to psychodermatology courses and training for dermatologists.

To assess the possible factors that affect the adequacy of knowledge in managing these cases, a Chi-square test was performed. The knowledge score was found to be



associated with the duration of dermatology practice and attendance in CME proceedings but was not associated with the perceived adequacy of knowledge gained during training. Longer duration of practice may be associated with the knowledge score owing to the greater exposure to cases and more access to training opportunities. The non-association of knowledge scores and the perceived knowledge of dermatologists emphasize the importance of performing objective competency assessments to identify any deficiencies and address these areas of concern to ensure the quality of dermatologic care provided to our patients.

Recommendations for better healthcare delivery in psychodermatology include better access to mental health specialists, more training opportunities and better training during residency, and increased collaboration with psychiatrists. There are even more barriers to providing access to psychodermatologic care in the other provinces since majority of dermatologists practice in the National Capital Region (NCR) and the ratio of mental health workers per population in the Philippines is low, at 2–3 per 100,000 population.<sup>12</sup> Telemedicine may serve to bridge the gap in access. In addition, although all participants agree that psychodermatology is important in the practice of dermatology, the available training opportunities for psychodermatology is limited with half never having attended conferences, workshops, seminars, and modules. The most common source of training is CME. And while most prefer CME as the training modality, the integration of psychodermatology in residency and fellowship, and conference proceedings is also favored. Referral pathways for psychodermatologic cases are not available in the Philippine setting. This may be attributed to inexperience and to the scarcity of experts in psychodermatology in the country. Hence, the dermatologist who believes that a multidisciplinary approach is ideal may not know how to proceed. Therefore, partnerships with psychiatrists and/or psychologists through the establishment of liaison clinics or an in-hospital referral system may be pursued. This is especially important in the Philippines where psychodermatology is still a new and emerging subspecialty.

The study is the first to investigate psychotropic prescription rates of practicing dermatologists when treating psychodermatologic conditions in the Philippines as well as the first to compare the participants' perceived knowledge versus objective assessment of their knowledge using a knowledge score. This study also aimed to validate the survey tool for use in the Philippine setting. Although the online nature of the survey as well as the convenience sampling method of collecting participants limited the number of responses and affected generalizability of the data. In addition, the frequency of the cases in the study are based on the dermatologists' perception and practice patterns and are not based on a retrospective chart review. This study did not assess the referral patterns of dermatologists to other

members of the healthcare team such as clinical psychologists and social workers. The study described referral patterns to psychiatrists but did not report the amenability of patients to these services. While the study determined the psychotropic prescribing patterns, it did not identify the important barriers to using these medications, including the S2 license requirement. These are recommended areas for future studies.

## CONCLUSION

There are many challenges to providing psychodermatologic care in the Philippines but the positive attitude towards psychodermatology, coupled with increased access to education and training opportunities, and the multidisciplinary approach to these cases may improve the quality of dermatologic care that we provide.

## Statement of Authorship

All authors certified fulfillment of ICMJE authorship criteria.

## Author Disclosure

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## REFERENCES

- Gupta MA. Commentary: Psychodermatology. *Clin Dermatol.* 2013 Jan-Feb;31(1):1-2. <https://doi.org/10.1016/j.clindermatol.2011.11.018> PMID: 23245967.
- Muñoz LU, Calderón PH, Castro AL, Zemelman VD. Psychocutaneous disease: knowledge and clinical attitudes of Chilean dermatologists. *Int J Dermatol.* 2014 Apr;53(4):e266-7. <https://doi.org/10.1111/ijd.12175> PMID: 23464668.
- Markabayeva A, Ospanova S, Jafferany M. Psychodermatology: knowledge, awareness, and attitude of dermatologists in Kazakhstan. *Int J Dermatol.* 2020 Apr;59(4):e105-9. DOI: 10.1111/ijd.14608 PMID: 31364766
- Kutasevych YF, Jafferany M, Sviatenko TV. Psychodermatology in Ukraine: a modern look at the problem. *Dermatol Venereol.* 2018;82(4):8-12.
- Osman OT, Souid A-K, Al-Mugaddam F, Eapen BR, Jafferany M. Attentiveness of dermatologists in the Middle East to psychocutaneous medicine. *Prim Care Companion CNS Disord.* 2017 Apr 27;19(2).
- Ocek T, Kani AS, Baş A, Yalcin M, Turan S, Emul M, et al. Psychodermatology: knowledge, awareness, practicing patterns, and attitudes of dermatologists in Turkey. *Prim Care Companion CNS Disord.* 2015 Apr 30;17(2):10.4088/PCC.14m01628. PMID: 26445688 PMID: PMC4560187 DOI: 10.4088/PCC.14m01628
- Turk T, Fujiwara E, Abba-Aji A, Mathura P, Dytoc M. Psychodermatology in Canada: A national survey assessment of dermatologists' perception, practice patterns, and challenges. *J Cutan Med Surg.* 2021 May-Jun;25(3):249-56. PMID: 34039041 DOI: 10.1177/1203475420977473
- Jara M, Laconico L, Maano C. Attitudes and practices of Filipino dermatology residents and dermatologists towards psychocutaneous disorders. Department of Dermatology, University of the Philippines-Philippine General Hospital. 2010. Unpublished.

9. Jafferany M, Stoep AV, Dumitrescu A, Hornung RL. Psychocutaneous disorders: a survey study of psychiatrists' awareness and treatment patterns. *South Med J.* 2010 Dec;103(12):1199–203. PMID: 20978462 DOI: 10.1097/SMJ.0b013e3181fa73cf
10. Javier F, Calimag M. Opioid Use in the Philippines - 20 years after the introduction of the WHO analgesic ladder - Scientific Figure on ResearchGate [Internet]. [cited 2023 Feb 10]. Available from: [https://www.researchgate.net/figure/Reasons-for-not-availing-of-the-Dangerous-Drug-S2-license-N-84\\_tbl1\\_255703667](https://www.researchgate.net/figure/Reasons-for-not-availing-of-the-Dangerous-Drug-S2-license-N-84_tbl1_255703667).
11. Hafi B, Abdul Latheef EN, Uvais NA, Jafferany M, Razmi T, Tp A, et al. Awareness of psychodermatology in Indian dermatologists: a South Indian perspective. *Dermatol Ther.* 2020 Nov;33(6):e14024. PMID: 32677246 DOI: 10.1111/dth.14024
12. Lally J, Tully J, Samaniego R. Mental health services in the Philippines. *BJPsych Int.* 2019 Aug;16(3):62-4. doi: 10.1192/bji.2018.34. PMID: 31385955; PMCID: PMC6646843

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