

ORIGINAL ARTICLE

Mental distress in dermatologists during COVID-19 pandemic: Assessment and risk factors in a global, cross-sectional study

Shashank Bhargava¹  | Rashmi Sarkar² | George Kroumpouzos^{3,4,5} 

¹Department of Dermatology, R.D. Gardi Medical College, Ujjain, India

²Department of Dermatology, Lady Hardinge Medical College, New Delhi, India

³Department of Dermatology, Alpert Medical School of Brown University, Providence, Rhode Island

⁴Department of Dermatology, Medical School of Jundiaí, São Paulo, Brazil

⁵GK Dermatology PC, Weymouth, Massachusetts

Correspondence

George Kroumpouzos, Department of Dermatology, Rhode Island Hospital, APC 10, 593 Eddy St, Providence, Rhode Island, 02903, USA.

Email: gk@gkderm.com

Abstract

There is a sparsity of data regarding the mental health status of dermatologists during COVID-19 pandemic. Evaluate the effects of pandemic on mental health of dermatologists on a large scale and identify risk factors for mental distress. 733 dermatologists were included in this cross-sectional, web-based survey. Mental distress was reported by 77.2% of responders. Considerable percentages of participants experienced stress (73.9%), irritation (33.7%), insomnia (30%), or depression (27.6%), and 78.6% were overwhelmed with the amount of pandemic information they were receiving. Mental distress was significantly associated with practice years, volume of patients seen per week before pandemic, personal protective equipment availability at hospital ($P = .001$ for each), practice location (continent; $P < .001$), and participant's assessment that the healthcare system was not equipped for the pandemic ($P = .003$). Stress was associated with hospital service ($P = .003$), and depression with being overwhelmed with the amount of pandemic information received ($P = .004$). In a logistic model, teledermatology use was the most powerful predictor of mental distress (OR, 1.57 [95% CI, 1.07-2.32]). Mental distress was common among dermatologists during this pandemic. Teledermatology use was the most powerful predictor of mental distress. Preventative strategies and psychosocial interventions should be implemented.

KEYWORDS

COVID-19, depression, dermatologist, distress, personal protective equipment, stress, teledermatology

1 | INTRODUCTION

The Coronavirus disease 2019 (COVID-19) has caused a widespread emotional distress and increased risk for psychiatric disease.¹⁻⁴ Healthcare providers (HCPs) are undergoing enormous psychological stress due to its highly contiguous nature, considerable morbidity and mortality, lack of effective treatment, and uncertain prognosis.^{5,6} The fear of bringing the virus home to family members, and the reality of losing colleagues to the disease increases the toll to HCPs. The emphasis on social distancing enhances the risk of loneliness, isolation, and anxiety.⁷ The rapid pace of the disease has created challenges for healthcare systems and forced HCPs to grapple with

additional stressors, including shortages of personal protective equipment (PPE), ventilators and intensive care unit beds.⁸⁻¹⁰

Recent studies have shown that HCPs are at an increased risk of experiencing high levels of stress, anxiety, depression, burnout, addiction, and post-traumatic stress disorder, which could have long-term consequences for their mental health.^{11,12} The pandemic appears to have created a secondary crisis of psychological distress and mental health system spillover.¹³ While there have been several studies addressing mental health in HCPs during this pandemic, there is a sparsity of data regarding dermatologists. Dermatology is considered a non-emergency specialty and, hence, mental health concerns often remain under-addressed.¹⁴ Two studies on mental health of Indian

dermatologists were published recently but included only frontline dermatologists in quarantined environments.^{15,16}

Our study addresses several mental health conditions in COVID-19 dermatologists on a large scale, taking into account demographic data, that is, location (continent), practice setting and population density, and practice years. We performed comparative analyses to identify clinically meaningful associations of mental distress in dermatologists during the pandemic. Finally, a logistic regression model was built to identify risk factors for mental distress.

2 | METHODS

2.1 | Survey instrument and administration

The questionnaire was prepared after a thorough literature review, then formatted in Google forms and pilot tested to ensure proper flow, salience, and acceptability of the questions. The survey instrument was distributed electronically from April 1 to 20, 2020 to the principal investigators' contacts on social media sites, specifically Board-certified dermatologists. Participants could access the survey via a link that was provided. Reminder emails were sent to increase participation. This was an anonymous survey, there was no process of data linkage, and recording or dissemination did not generate identifiable information. An exemption was obtained from R. D. Gardi Institutional Review Board.

2.2 | Statistical analysis

A group of 733 participants that responded to mental health questions of the survey was used for statistical analysis. Frequencies and percentages of respondents that experienced mental distress (defined as stress, irritability, insomnia, or depression), and felt overwhelmed with pandemic information are provided. Assessments of associations between pairs of categorical variables were performed with χ^2 test. We tried to identify statistically significant associations with other variables in the survey, such as demographic data, patient volumes, hospital service, teledermatology (TD) use, and PPE availability at hospital. Threshold of significance, that is, respective *P* value, was adjusted for multiple comparisons by using False Discovery Rate.¹⁷

Finally, we created a logistic regression model for mental distress. Independent factors included variables that could be associated with changes in mental distress during this pandemic, such as demographic factors (continent, population density of practice, practice setting), patient volume, TD use, and PPE availability at hospital. The estimated odds ratio (OR) for each predictor is the factor by which the base rate OR would be multiplied if that predictor = "yes" in order to obtain the OR of the dependent variable being endorsed "yes." Precision estimates (95% Confidence Intervals), *z* values (OR: SE), and *P* values for estimated ORs are provided. Statistical analysis was performed using Stata 15.1, Statacorp, TX.

3 | RESULTS

3.1 | Demographic data

The demographic data of responders are depicted in Table 1. A total of 733 valid responses were received from qualified dermatologists from all continents. The largest group was Asia (47.6%). Almost half (45%) of responders were within 10 years of practice while 27% had more than 20 practice years. Almost half of participants (47.2%) were involved exclusively in private practice, and three quarters (78.6%) practiced in an urban area.

3.2 | Descriptive data

More than three quarters (77.2%) of responders indicated that the pandemic had caused mental distress (Table 2). Substantial percentages of responders experienced stress (73.9%), irritation (33.7%), insomnia (30%), or depression (27.6%). The majority of responders (78.6%) were overwhelmed with the amount of information they were receiving about the pandemic.

3.3 | Comparative statistics

Mental distress was significantly associated with practice years, volume of patients seen per week before the pandemic, availability of PPE at hospital

TABLE 1 Practice demographics

Characteristic	Survey distribution ^a
Years in practice	
≤10	330 (45.0)
11-20	205 (28.0)
>20	198 (27.0)
Continent	
Asia	349 (47.6)
North America ^b	137 (18.7)
Central/South America	131 (17.9)
Europe	102 (13.9)
Other	14 (1.9)
Population density of practice	
Urban	576 (78.6)
Suburban	137 (18.7)
Rural	20 (2.7)
Practice setting	
Private	346 (47.2)
Private and hospital	249 (34.0)
Tertiary hospital	91 (12.4)
General hospital	47 (6.4)

^aData are reported as number (percentage) of respondents. Percentages are rounded to the decimal place.

^bIncludes predominantly US participants.

($P = .001$ for each) and location (continent; $P < .001$; Table 3). There was more distress among dermatologists practicing in North America (83.9%) and Asia (81.4%) than in Central/South America (CSA; 68.7%) and Europe (65.3%; North America vs CSA, $P = .003$ and Asia vs CSA, $P = .002$). There were no statistically significant differences in Asia vs North America, and CSA vs Europe comparisons. Mental distress was also associated to participant's assessment that their healthcare system was not equipped for the pandemic ($P = .003$). Stress was associated with hospital service ($P = .003$), and depression with being overwhelmed by the amount of pandemic information received ($P = .004$).

3.4 | Logistic regression model

In a logistic model, the factor with the largest increase in OR for mental distress was TD use during the pandemic (OR, 1.57 [95% CI,

TABLE 2 Mental health status during pandemic

Characteristic	Survey distribution ^a
Did you experience any of the following? (n = 733)	
Yes	566 (77.2)
Stress (n = 594)	439 (73.9)
Irritability (n = 594)	200 (33.7)
Insomnia (n = 594)	182 (30)
Depression (n = 594)	164 (27.6)
Overwhelmed with amount of information receiving about the pandemic? (n = 733)	
Yes	576 (78.6)

^aData are reported as number (percentage) of respondents. Percentages are rounded to the decimal place.

TABLE 3 Statistically significant associations^{*}

Mental distress during pandemic		P value ^a	Group analyses ^b
Mental distress ^c (n = 733)	Practice years	.001	<10 (79.7); 11–20 (81.9); >20 (68.2)
	Continent	<.001	Y/GT ^d : NA (83.9); A (81.4); CSA (68.7); E (65.3) A vs CSA ($P = .002$)
	Patients/wk before pandemic	.001	<10 (72.3); 11–20 (77.1); >20 (87.6) 10–20 vs >20 ($P = .007$)
Telehealth during pandemic		.010	
PPE availability at hospital?		.001	"No" (78.4); "Yes" (70.1); "Do not know" (85.1) "No" vs "Yes" ($P = .031$)
Healthcare system equipped for the pandemic?		.003	"No" (86.2); "Yes" (73.4) "Not sure" (83.9) "No" vs "Yes" ($P = .001$)
Stress	Hospital service (n = 433)	.003	
Depression	Overwhelmed by amount of pandemic information? (n = 490)	.004	"No" (23.5); "Yes" (37.2)

Abbreviations: A, Asia; CSA, Central and South America; E, Europe; NA, North America; PPE, personal protective equipment; wk, week; Y/GT, yes; group's total.

^aOnly statistically significant P values are shown on Table. All P values have been adjusted for multiple comparisons.

^bRefers to groups of variable in second column.

^cDefined as presence of stress, irritability, insomnia, or depression.

^dY:GT is given as percentage (number rounded to decimal place) in a parenthesis, and percentages in a group are listed in descending order.

*Chi-square test performed unless otherwise noted.

1.07–2.32]), followed by having seen >100 patients per week before the pandemic (OR, 1.47 [95% CI, 1.03–2.10]; Table 4). Negative predictors of mental health disease were urban practice (OR, 0.57 [95% CI, 0.35–0.93]), and >20 practice years (OR, 0.53 [95% CI, 1.07–2.32]).

4 | DISCUSSION

HCPs are at an increased risk for high levels of stress, anxiety, poor sleep quality, and depression, burnout, and post-traumatic stress disorder during the pandemic.^{11,18} A multi-centric survey in China found considerable percentages of depression (50.7%), anxiety (44.7%), insomnia (36.1%), and stress (73.4%) in COVID-19 HCPs.¹⁹ However, there are very limited data on dermatologists' mental health. Two studies were performed recently in India but are limited by a small sample size (40 and 133 participants)^{15,16} or focusing solely on stress.¹⁶ The study by Sil et al included only eight dermatologists (the remaining 33 were residents and trainees) and did not provide comparative statistics and logistic regression.¹⁵ Our study reports on larger scale which helps minimize recall and other biases. Also, these studies involved only frontline dermatologists in quarantined milieu.^{15,16} Here, we present the data of a global, cross-sectional survey that included a large number of participants and explored clinically meaningful associations of mental distress and risk factors.

Our study indicates that a remarkable percentage (77.2%) of participants experienced distress during the pandemic. Stress (59.9%) was the most common (59.9%) followed by irritability (27.3%), insomnia (24.8%), and depression (22.4%). Overall, these were associated with practice location (most strongly for North America and Asia; Table 3). This may be related to the unpreparedness of healthcare systems, as indicated by a significant association between mental distress

TABLE 4 Logistic regression model of mental distress

Dependent variable	Independent variables	LR χ^2	P value	OR	SE	z ^a	P value	95% Confidence interval
Mental distress (stress, irritability, insomnia or depression) during pandemic		29.40	<.0001					
	Telehealth during pandemic			1.57	0.31	2.30	.021	1.07-2.32
	>100 Patients/wk before pandemic			1.47	0.26	2.14	.033	1.03-2.10
	Urban practice			0.57	0.14	-2.21	.026	0.35-0.93
	>20 Years in practice			0.53	0.10	-3.26	.001	0.37-0.78
	_cons ^b			2.36	1.84	1.96	.049	1.08-5.58

Note: Numbers are rounded to two decimal places in all but P value (three decimal places) columns.

Abbreviations: LR, likelihood ratio; OR, odds ratio; PPE, personal protective equipment; wk, week.

^az, defined as OR:SE.

^b_cons estimates baseline odds.

and the participant's response that healthcare system was not adequately equipped for this pandemic (Table 3). Also, it may be related to financial uncertainties, for example, in most developing Asian countries HCPs are dependent on their own savings if they become ill. Mental distress was also associated with the number of patients seen per week before the pandemic. This might be related to the fact that caring for higher numbers of patients before the pandemic would incur additional responsibility to provide continuity of care and might be associated with substantially higher economic losses.

The prevalence of stress in our study was high (73.9%) but lower than that of Indian dermatologists (85.9% with moderate/severe stress).¹⁶ This is possibly due to the latter's inclusion of exclusively frontline dermatologists in quarantined milieu. Interestingly, hospital service by dermatologists was also associated with stress (Table 3). Sources of emotional distress may include rapidly evolving practice environments (eg, non-hospital-based dermatologists serving in ICUs), witnessing large volumes of infections and deaths, experiencing burn-out, and lack of PPE availability at hospital.²⁰⁻²² Without adequate PPE protection, the paramount fear expressed by HCPs is that they will not only become sick, but also spread the virus to their patients and families.²³ Our study revealed a significant association between lack of PPE and mental distress (Table 3). This confirms the finding of Podder et al that lack of PPE and consequent risk of self-infection was the second most common risk factor for stress.¹⁶

Our finding of substantial percentages of dermatologists experiencing irritability and insomnia has not been reported. Depression was noted in 27.6% of participants overall compared to 26.8% of frontline Indian dermatologists.¹⁵ Depression may result from a feeling that one has failed to help patients that died of the disease, even if death was inevitable. That effect might be most pronounced among frontline HCPs, especially those at hospitals that have been hit by surges of patients. Cases of suicide among frontline HCPs have been reported by US media.²⁴ The loneliness of quarantine for dermatologists who stopped working and a lack of leisure activities may also contribute to depression. Finally, feeling overwhelmed by the amount

of pandemic information received was also associated with depression (Table 3). Daily reminders of patient losses and lack of effective treatment as so often reported in the media might also contribute to depression.

In our logistic model, TD use during the pandemic was the most powerful factor increasing the OR for mental distress in the participant. This could be due to the fact that establishing TD during pandemic might have been stressful in itself. Barriers to establishing TD including a lack of reimbursement in many countries and suboptimal readiness of healthcare systems may add to the stress.²⁵ Urban practice and >20 practice years were negative predictors of mental distress. Inadequate government support for suburban and rural practices in many geographic areas may affect the dermatologist mentally. Also, younger practitioners may experience higher stress levels because they may not be as well established as their older colleagues.

Strategies for ameliorating distress would include occupational mental health resources, support for illness and family leave, ensuring adequate staffing, and a safe practice environment with adequate PPE.²⁶ Team support, stress monitoring, taking breaks regularly, and connecting with others would also enhance resilience.²⁷ Along with training on mental help and crisis management, these would enhance the well-being of dermatologists in the face of the pandemic.^{11,27} A Chinese study suggested that psychological and social interventions might improve the well-being of HCPs during the COVID-19 outbreak.²¹

4.1 | Limitations

This study provides only a "snapshot" of distress during the pandemic that could materially change given the dynamically evolving situation. Recall biases cannot be excluded but the large sample size and representative distribution possibly diminished them.

Questions regarding stress prior to pandemic were not included; however, distress among dermatologists before the pandemic has

never been reported at such high frequency as in our study (77.2%). Stress before the pandemic has been more prevalent in emergency and surgical specialties than dermatology (a non-emergency outpatient specialty), and was associated with burnout. In a recent study of female dermatologists with major family responsibilities including children care, 57.6% were "stressed or very stressed."²⁸ There are no reports of high prevalence of "feeling down" or insomnia among dermatologists before the pandemic (27.6% and 30%, respectively, in our study). As per 2019 Medscape National Physician Burnout, Depression and Suicide Report, the average physician burnout rate was 44% but only 38% among dermatologists, and the average depression rate among physicians was 15% (11% colloquial and 4% clinical depression).²⁹

5 | CONCLUSIONS

To our knowledge, this is the first large-scale, global study of mental distress in dermatologists during the COVID-19 pandemic. Considerable percentages of dermatologists in this study reported distress, with TD being the most powerful factor increasing the OR. The results shed some light as well on several other risk factors for COVID-19 dermatologists. Preventive strategies should incorporate measures to reduce dermatologists' levels of stress and increase their resilience.

ACKNOWLEDGMENT

The authors are thankful to Mohamad Goldust, MD for his assistance in data collection.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

AUTHOR CONTRIBUTIONS

All persons designated as authors contributed substantially to this study to take public responsibility for appropriate portions of the content. Furthermore, each author certifies that this material or similar material has not been and will not be submitted to or published in any other publication before its appearance in *Dermatologic Therapy*. Drs Bhargava and Kroumpouzou had full access to all data in the study and take responsibility for the integrity of data and accuracy of data analysis. Statistical analysis was performed by Dr. Kroumpouzou. All authors have contributed to the concept/design, acquisition of data, and drafting of the manuscript. All authors have read and approved the final version to be published. The list of authors on the manuscript has been approved by Drs. Bhargava, Sarkar, and Kroumpouzou.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ORCID

Shashank Bhargava  <https://orcid.org/0000-0003-4141-5520>

George Kroumpouzou  <https://orcid.org/0000-0002-5915-4640>

REFERENCES

- World Health Organization. Mental health and psychosocial considerations during the COVID-19 outbreak, March 18, 2020. World Health Organization; 2020. Accessed on June 29, 2020.
- Pfefferbaum B, North CS. Mental health and the Covid-19 pandemic. *N Engl J Med*. 2020;383:510–512. <https://doi.org/10.1056/NEJMp2008017>.
- Brooks SK, Webster RK, Smith LE, et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet*. 2020;395:912–920. [https://doi.org/10.1016/S0140-6736\(20\)30460-8](https://doi.org/10.1016/S0140-6736(20)30460-8).
- Wang S, Meeker JW, Perkins AJ, et al. Psychiatric symptoms and their association with sleep disturbances in intensive care unit survivors. *Int J Gen Med*. 2019;12:125–130. <https://doi.org/10.2147/IJGM.S193084>.
- Urooj U, Ansari A, Siraj A, Khan S, Tariq H. Expectations, fears and perceptions of doctors during Covid-19 pandemic. *Pak J Med Sci*. 2020;36:S37–S42. <https://doi.org/10.12669/pjms.36.COVID19-S4.2643>.
- Bhargava S, Rokde R, Rathod D, Kroumpouzou G. Employing dermatologists on the frontline against COVID-19: all hands on deck. *Dermatol Ther*. 2020;e13420. <https://doi.org/10.1111/dth.13420>.
- Haider II, Tiwana F, Tahir SM. Impact of the COVID-19 pandemic on adult mental health. *Pak J Med Sci*. 2020;36:S90–S94. <https://doi.org/10.12669/pjms.36.COVID19-S4.2756>.
- Hall H. The effect of the COVID-19 pandemic on healthcare workers' mental health. *J Am Acad Phys Assist*. 2020;33:45–48. <https://doi.org/10.1097/01.JAA.0000669772.78848.8c>.
- Chopra V, Toner E, Waldhorn R, Washer L. How should U.S. hospitals prepare for coronavirus disease 2019 (COVID-19)? *Ann Intern Med*. 2020;172:621–622. <https://doi.org/10.7326/M20-0907>.
- Bhargava S, Gupta M, Kroumpouzou G. Protection comes at a cost: doctor's life inside personal protection equipment. *Dermatol Ther*. 2020;e13758. <https://doi.org/10.1111/dth.13758>.
- El-Hage W, Hingray C, Lemogne C, et al. Health professionals facing the coronavirus disease 2019 (COVID-19) pandemic: what are the mental health risks? *Encephale*. 2020;46(3S):S73–S80. <https://doi.org/10.1016/j.encep.2020.04.008>.
- Nelson SM, Lee-Winn AE. The mental turmoil of hospital nurses in the COVID-19 pandemic. *Psychol Trauma*. 2020;12(S1):S126–S127. <https://doi.org/10.1037/tra0000810>.
- Choi KR, Heilemann MV, Fauer A, Mead M. A second pandemic: mental health spillover from the novel coronavirus (COVID-19). *J Am Psychiatr Nurses Assoc*. 2020;26(4):340–343. <https://doi.org/10.1177/1078390320919803>.
- Goldust M, Agarwal K, Kroumpouzou G, Jafferany M, Lotti T, Podder I. Mental health status of dermatologists during the COVID-19 pandemic: a technology-based therapy. *Dermatol Ther*. 2020;e13723. <https://doi.org/10.1111/dth.13723>.
- Sil A, Das A, Jaiswal S, et al. Mental health assessment of frontline COVID-19 dermatologists: a pan-Indian multicentric cross sectional study. *Dermatol Ther*. 2020;e13884. <https://doi.org/10.1111/dth.13884>.
- Podder I, Agarwal K, Datta S. Comparative analysis of perceived stress in dermatologists and other physicians during home-quarantine and COVID-19 pandemic with exploration of possible risk factors: a web-based cross-sectional study from eastern India. *Dermatol Ther*. 2020;e13788. <https://doi.org/10.1111/dth.13788>.
- Chen SY, Feng Z, Yi X. A general introduction to adjustment for multiple comparisons. *J Thorac Dis*. 2017;9:1725–1729.
- Liu N, Zhang F, Wei C, et al. Prevalence and predictors of PTSS during COVID-19 outbreak in China hardest-hit areas: gender differences matter. *Psychiatry Res*. 2020;287:112921. <https://doi.org/10.1016/j.psychres.2020.112921>.

19. Liu S, Yang L, Zhang C, et al. Online mental health services in China during the COVID-19 outbreak. *Lancet Psychiatry*. 2020;7:e17-e18. [https://doi.org/10.1016/S2215-0366\(20\)30077-8](https://doi.org/10.1016/S2215-0366(20)30077-8).
20. Lai J, Ma S, Wang Y, et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Netw Open*. 2020;3(3):e203976. <https://doi.org/10.1001/jamanetworkopen.2020.3976>.
21. Chen Q, Liang M, Li Y, et al. Mental health care for medical staff in China during the COVID-19 outbreak. *Lancet Psychiatry*. 2020;7:e15-e16. [https://doi.org/10.1016/S2215-0366\(20\)30078-X](https://doi.org/10.1016/S2215-0366(20)30078-X).
22. Shanafelt T, Ripp J, Trockel M. Understanding and addressing sources of anxiety among health care professionals during the COVID-19 pandemic. *JAMA*. 2020. <https://doi.org/10.1001/jama.2020.5893>. [Epub ahead of print].
23. Rangachari P, L Woods J. Preserving organizational resilience, patient safety, and staff retention during COVID-19 requires a holistic consideration of the psychological safety of healthcare workers. *Int J Environ Res Public Health*. 2020;17(12): E4267. doi:<https://doi.org/10.3390/ijerph17124267>
24. Healthcare workers are vulnerable to suicide. COVID-19 could make it worse. <https://www.healthline.com/health/mental-health/healthcare-workers-suicide-covid-19#1>. Accessed June 30, 2020.
25. Smith AC, Thomas E, Snoswell CL, et al. Telehealth for global emergencies: implications for coronavirus disease 2019 (COVID-19). *J Telemed Telecare*. 2020;26:309-313. <https://doi.org/10.1177/1357633X20916567>.
26. American Psychiatric Association. (2020). Coronavirus and mental health: taking care of ourselves during infectious disease outbreaks. <https://www.psychiatry.org/news-room/apa-blogs/apa-blog/2020/02/coronavirus-and-mental-health-taking-care-of-ourselves-during-infectious-disease-outbreaks>
27. Vinkers CH, van Amelsvoort T, Bisson JI, et al. Stress resilience during the coronavirus pandemic. *Eur Neuropsychopharmacol*. 2020;35:12-16. <https://doi.org/10.1016/j.euroneuro.2020.05.003>.
28. Raffi J, Trivedi MK, White L, Murase JE. Work-life balance among female dermatologists. *Int J Womens Dermatol*. 2019;6:13-19.
29. Medscape Physician Burnout, Depression & Suicide Report 2019. <https://www.medscape.com/slideshow/2019-lifestyle-burnout-depression-6011056#1>. Accessed July 17, 2020.

How to cite this article: Bhargava S, Sarkar R, Kroumpouzou G. Mental distress in dermatologists during COVID-19 pandemic: Assessment and risk factors in a global, cross-sectional study. *Dermatologic Therapy*. 2020;33:e14161. <https://doi.org/10.1111/dth.14161>