Dermatology and Mental Wellbeing in the Era of COVID-19 Pandemic

Hanaa Elsherbiny

Department of Dermatology, Mubarak hospital, MOH, Kuwait
Sulaibkhat - Jamal Abdel Nasser Street, 13001, Kuwait.


ABSTRACT
The appearance of COVID 19 pandemic has revealed the ‘centuries-old’ relation between Dermatology and Mental wellbeing. It appears that, in addition to the multiple efforts attempted at different levels to combat the spread of the disease, special attention should be made to the mental health issues of patients with skin diseases during this tough period, concerning the inseparable bond between psychological status of dermatology patients and the existing pandemic. Since the outbreak of the COVID-19 pandemic, a thoughtful re-structuring for the dermatologic practices is needed.

Keywords
Mental health, COVID-19 pandemic, Chronic skin disease, Depression, Psychodermatology, Teledermatology.

Introduction
The link between mental health and the burden of physical conditions is stressed by the World Health Organization “there is no health without mental health” [1]. Emotional factors influence many skin diseases and the correlation between stressful life events and disease flares is well-recognized in dermatology [2]. The current COVID-19 pandemic has clearly revealed the close connection between mental health and skin diseases. Therefore, it is essential that dermatology patients should be aware of the potential mental health impact of the pandemic and have clear knowledge about how to practice a balanced mental health and seek for assistance in case of distress [3].

Skin diseases and mental wellbeing
The skin and the psyche are linked from embryologic, biological, psychological and cultural perspectives. Both the skin and the brain are developed from the same ectodermic germ layer. New evidence in psychoneuroimmunology suggest that both the skin and the psyche are affected by immunologic vulnerabilities and endocrine reactions. Emotional stress may exacerbate many chronic dermatoses and can initiate a vicious cycle referred to as the ‘itch–scratch cycle’; therefore, treatment of such cases may be difficult without addressing stress [4].

Effect of skin diseases on psychological status (Dermatologic disorders with psychiatric symptoms)
Patients with skin conditions such as psoriasis, eczema, and skin cancer frequently face psychological challenges which, in turn, impact their social functioning and the kind of life that they lead [5]. Acne vulgaris has been associated with psychiatric disorders varying from clinical depression, social phobia, and certain anxiety disorders. The patients suffering from acne have reported greater levels of anxiety and depression than other medical populations [6,7].

Effect of psychological status on skin diseases (Psychophysiological disorders)
Acute stress may trigger several disease manifestations, such as allergic reactions (e.g., eczema, urticaria and asthma) and angioKinetic phenomena. The pathogenesis of stress-induced disorders can be due to increased secretion of the major stress mediators and their effect in the context of a vulnerable background [8].

Psychiatric disorders with dermatologic symptoms
These are primarily psychiatric conditions with symptoms involving the skin, such as delusions of parasitosis, trichotillomania,
dermatitis artefacta, neurotic excoriations, psychogenic pruritus and dysmorphophobia [9].

**COVID 19 pandemic and its psychological effect on general population**
The coronavirus disease 2019 (COVID-19) outbreak was declared a public health emergency of international concern by the World Health Organization (WHO) on 30 January 2020 when all 34 regions of China had cases of infection [10]. As of 22 February, more than a month into this epidemic, 77,816 people worldwide have been infected, of which 21,147 have recovered from the illness and 2,360 have died [11].

Previous research has revealed a profound and broad spectrum of psychological impact that outbreaks can inflict on people [12]. Significant psychiatric morbidities have been found to vary from depression, anxiety, panic attacks, somatic symptoms, and posttraumatic stress disorder symptoms, to delirium, psychosis and even suicidality [13,14].

The proliferation of fear resulting in erratic behaviour among people amidst infectious outbreaks is an understandably not-uncommon phenomenon since anyone of any gender, and sociodemographic status can be infected. This is especially true for COVID-19 when there is much speculation surrounding the mode and rate of transmission, with the disease spreading at such an unparalleled magnitude, and there is currently still no definitive treatment.
A survey was conducted in China during the initial outbreak of COVID-19. This study found that 53.8% of respondents rated the psychological impact of the outbreak as moderate or severe; 16.5% reported moderate to severe depressive symptoms; 28.8% reported moderate to severe anxiety symptoms, and 8.1% reported moderate to severe stress levels [15].

**COVID 19 pandemic has affected dermatology practice through different conducts: directly and through psychological impact on vulnerable patients with skin diseases**

A. **COVID 19 pandemic and skin disorders (dermatological manifestations of COVID 19 pandemic)**
Interestingly, there have been many COVID-19 cases reporting cutaneous manifestations. Majority of the studies reported no correlation between COVID-19 severity and skin lesions [16].

The dermatology clinical findings on COVID-19 patients were cutaneous manifestations as contact dermatitis-like itch, urticarial lesions, chicken-pox lesions, exacerbation of pre-existing skin diseases, including seborrheic dermatitis and acne, and vasculitic skin lesions [17].

B. **COVID 19 pandemic and its psychological impact on vulnerable patients with skin diseases**
Although specific skin changes due to COVID-19 infection have not been described, and one could expect iatrogenic secondary involvement of the skin [18]. The British Association of Dermatologists has previously suggested that 85% of patients with skin disease have reported that the psychosocial impacts of their disease are a major component of illness, which is a concerning statistic [19].

The present COVID-19 pandemic has enlightened the inseparable bond between mental health and chronic skin disease. Immediate stressors during the COVID-19 pandemic such as statutory shielding and social distancing are likely to have a direct effect on patients’ mental health. There is evidence that the pandemic may also constitute a traumatic or stigmatizing event, with long-lasting consequences such as post-traumatic stress disorder (PTSD). The further likely severe socio-economic impact is likely to contribute to the psychological burden of the population, including suicidality. Given that people with chronic skin disease are at higher risk for mental health disease and many (especially those on immunosuppressant medications) have been advised to shield and self-isolate, the psychological impact of the pandemic on these patients is particularly important. We expect these patients to experience higher rates of health anxiety and social isolation and probably low mood during the shielding and social distancing period, as well as reduced physical attendance at medical services. Some patients may experience changes in their immunosuppression therapy subject to infection risk, leading to acute flares and creating a vicious cycle with further worsening of their mental health. The psychosocial stress of the pandemic may itself present a trigger for inflammatory skin conditions. Notably, individuals who develop stress-related disorders such as PTSD after traumatic or other stressful events are at increased risk of subsequently developing autoimmune diseases, including psoriasis [3,20,21].

**Attaining responsibility of dermatologists along with other health care providers to promote an environmentally sustainable health care system for the patients**
It is clear that the COVID-19 pandemic has led to a vigorous and multifaceted response from psychiatrists and allied professionals, and that mental health is clearly being taken into consideration at multiple levels in the general population, among healthcare workers, and in vulnerable populations [22].

In a recent study aimed to assess the Chinese mental health burden during the COVID-19 pandemic, a major mental health burden of the Chinese public during the COVID-19 pandemic was identified, younger people and healthcare workers were at a high risk of displaying psychological problem. They recommended an ongoing surveillance of the psychological consequences for pandemic-potential, life-threatening diseases, establishing early targeted psychological interventions and should become the routine as part of preparedness efforts in China [23].

Presented programs for the screening of psychiatric disorders including anxiety and depression among patients and even caregivers and treatment and management of cases by employing psychiatrists, psychologists and other relevant medical groups, especially in quarantine cases, due to the severity of the vulnerability and the availability of sufficient information for other groups of society, in order to know the status quo and create a
sense of trust, seem necessary [24].

It is known that the situations which involve the skin together with the nervous system and the mind, is associated with a diversity of psychopathological problems, which affect the patient's family and social life. Dermatologists should become familiar with basic psychopharmacology and simple non-pharmacological interventions. They also need to have good access to the patient, which depends on considering the situation from the perspective of those who experience the disease. In treatment, they should include pharmacological and non-pharmacological resources and always use stress reduction techniques. It is convenient, given the current level of knowledge about the mind-skin connection, that dermatology services have psychiatrists and psychologists for inter-consultation acting jointly with dermatologists [25].

In a period where lockdown is among essential keys for COVID-19 control, teledermatology can be efficient for managing non-COVID and COVID-related skin conditions and reassuring patients [26].

However, through appropriate discussion and interaction with the patients, the dermatologist can play an important role in helping to reduce the psychological impact, potentially improving the patient’s overall quality of life. Helping patients to come to terms with their condition, and helping them to build the skills required to reduce the psychosocial impact of their condition, may mean that they are more equipped to go out into the world afterwards and pursue a more meaningful life [27].

Respective authorities must identify the high-risk groups for psychological morbidity during COVID-19 through proper screening, in-time referral, and promote early interventions in a targeted manner [28].

Specific attention needs to be paid for more vulnerable groups, such as quarantined people, health care practitioners, children, older adults, marginalized communities (include daily wagers, migrant workers, slum dwellers, prisoners, and homeless population) and patients with previous psychiatric morbidities [29]. Awareness of psychological impact of COVID-19 outbreak on toddlers and adolescent is probably very crucial, but apparently overlooked issue [30,31].

Targeted interventions are needed to enhance psychological wellbeing of health care workers and strengthen the healthcare systems’ capacity during pandemic. A key focus of healthcare institutions should be in ensuring sufficient support, providing tailored education, and training and ensuring adequate resources. In addition, psychosocial need should be monitored, and psychosocial services could be delivered by telemedicine, for instance. In literature, social support has increased health care workers self-efficacy and reduced the levels of anxiety and stress [32].

Communication with patients, their families, and cares, and support their mental health and wellbeing is crucial to help alleviate any anxiety and fear they may have about COVID-19. Signpost to sources of online information (such as the British Association of Dermatologists' patient hub), support groups and government guidance on the mental health and wellbeing aspects of COVID-19 [33].

Conclusion
After All, to be particularly beneficial to the patients, controlling the disease requires proper and comprehensive management and attention to their mental health care. Adhering to all the roles mentioned, along with cohesion and relying on social capital, seems to be a feasible way to overcome the existing situation [34].

References
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