

Effectiveness of Skincare Toward Teenage Mental Health

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Abstract:

Navigating the era of intense rivalry and “educational scrimmage”, the psychological well-being of teenagers has there to be seen entombed in great negligence. With the escalating awareness towards the existing tensions, the study mainly identifies the developmental and psychological changes experienced by teenagers through the stage of adolescence, the scientific definition of “Psychodermatology”, how the innovative trending fashion of skincare affects teenagers, as well as the identifiable correlation between these two variables. The study is primarily composed of literature reviews, identifying the correlation between teenagers’ psychological status and the frequency of skincare from a multifaced perspective. The results from various literature have shown that building the habit of skincare does provide a positive impact on teenager’s mental health, creating both physical and psychological benefits. The recognition of the importance of self-care and the maintenance of the habit of skincare provides long-term benefits in establishing teenage self-esteem, self-recognition, and the ability to discharge educational and social stress.

Keywords: Skincare, Psychodermatology, Skincare and Mental Health, Teenage Psychological Wellbeing, Psychiatry, Dermatology

1. Definition of “Psychodermatology”

With the further progression and acknowledgment of the linkage between psychological performance and body functioning, a relatively ancient medical term was reintroduced to the public in recent decades— “Psychodermatology”. Psychodermatology can be defined as the interaction and combination of two fields: psychiatry and dermatology [1].

It explains how the mind and the skin cooperate to provide daily functioning. Psychiatry emphasizes the internalized psychological process within an individual, while the term dermatology reveals the performance of an individual externally [1]. Psychodermatology effectively combines and expresses how the internalized process of an individual can be expressed externally through the performance of skin and other physical properties, crafting an underestimated relationship between the cooperation of the internalized mind and the externalized body.

Tracing back to the early history of psychology in 460 BC, ancient philosophers have discovered traces of explanation towards the subtle relationship existing between how body functioning corresponds to stress levels. According to what Aristotle (384-322BC) proposed through his discoveries, the relationship between psychiatry and dermatology was complementary and thus indispensable [2]. The correlation and similarities shared between these

two distinctive traits were explained through the biological model, whereas the embryogenic of the nervous system and the skin share similar originality [2]. In simpler words, the development of the nervous system and the epidermis is initiated from the same germ layer, resulting in shared characteristics and interaction between them. In terms of interaction and performance, the skin cooperates with the nervous system to perform daily sensory-perception processes in response to external stimuli, and the internalization of stress can be expressed as acne, psoriasis, and eczema from the skin [2]. These expressions and signs ensure both safeness and effectiveness during daily functioning.

As previously mentioned, the dysfunction and imbalance between the skin and mind may lead to undesired symptoms such as Acne, Alopecia areata, Atopic dermatitis, and Psoriasis [1,2]. As a source of stress is sensed by the body, an adaptive reaction is required in return for the stress emitted [3]. Specific stress temporarily triggers and changes the performance of the partial response system, such as increased heart rate, elevated blood pressure, and altered memory functioning [3]. These are the most common body signs the human body performs when perceiving external stress. The immune system is also activated in certain conditions, altering and affecting the stress receptors scattered in the skin, creating undesired symptoms

in the skin [3]. The classification of Dermatological disorders further explains how the two factors interact and the importance of recognizing the relationship between these two variables.

2. Methodology

The study is primarily composed of information combined from literature reviews, peer-reviewed sources are mainly from Fort Hays State University library and Google Scholar. The explanation of the definition and application of “Psychodermatology” is originated from the article Psychodermatology. The impact of dermatological symptoms among teenagers is supported by the articles Adolescence and mental health and Acne vulgaris in teenagers. The effectiveness and the importance of skincare towards mental health well-being are conducted through The Impact of Routine Skin Care on the Quality of Life, Perceptual and sensory-functional consequences of Skin Care Products, and Psychological Effects of Skin Care from the Perspectives of Somatosensory Function, Emotional Response, and Skin Care Condition.

3. Data & Results

3.1 Impact of Dermatological Symptoms among Teenagers

Adolescence, the developmental stage that surpasses all physical, psychological, and societal progression plays a dominant role in the formation of self-identity, self-efficacy, and self-esteem [4]. Besides bearing academic and peer pressure, teenagers in modern society have encountered high academic expectations from parents, socialization issues with peers, assimilation of social norms as preparation for young adults, communication difficulties with parents, as well as uncertainties toward future direction. With the embarrassment, shame, and stigma attached to mental issues, the internalization of societal and academic pressure may further link to the externalized expression of stress: “the formulation and progression of Dermatological symptoms and disorders” [4].

According to a cross-sectional survey collected over 600 high school students, over 83% of teenagers have claimed to be plagued by the issue of acne, whereas the severity and the acuteness of its psychological impact are not widely recognized [5]. From diminished self-esteem to the quality of daily functioning, skin disorders particularly acne affect teenagers from a multifaced perspective and could further lead to permanent undesired results. Subjectively, a positive correlation was presented between the symptoms of psychological disorders and the severity of the skin condition, whereas both the feelings of loneliness and anxiousness among teenagers suffering from acne

have surpassed the rate of 55% [5]. Results show that within all the participants with acne and without acne, 14% of participants suffering from acne have shown a higher frequency and symptoms of depression and anxiety, and worsened depressive symptoms were presented after the deterioration of the acne issue, though the correlation was not statistically significant [5].

Scientific studies have also reflected how acne has affected teenager’s societal performance. Results have shown that acne can create a perpetual effect on one’s personality and future responsive behavior. Acne has created an immediate and severe impact on the depiction of self-image, with the long-term internalization of feeling embarrassed, shame, disgust, loneliness, fear, anger, and isolation, acne can be linked as one of the causing factors of social phobia and avoidance personality disorder [5]. Additionally, acne has also shown a relationship with the social sensitivity of an individual, in which individuals with higher social sensitivity usually lead to lower enjoyment and life quality [5]. Acne was found to be placing teenagers in a long-term position of shame and embarrassment, whereas the severity and importance of this “mind and body” crisis is yet not being emphasized by the professions in the psychological field or the public.

3.2 The Effectiveness of Skincare towards the Maintenance of Psychological Well-being

The effectiveness of skincare can be primarily differentiated into two major types: physical and psychological benefits. Understanding skincare from the physical aspect and formulating the habit of skincare can physically improve and alleviate the issue of acne among teenagers [6]. With the removal of excessive sebum and the colonization of bacteria, the signs of recovery or improvement of skin conditions may match with their short to long-term expectations in appearance [6]. However, to resolve the acne issue with its accommodating negative psychological effects, the importance of the psychological benefits of skincare should also be considered as one of the anesis factors. The psychological benefit of skincare can be quantitatively measured by the Farage Quality of Life Instrument (FQoL). The Farage quality of life instrument can be further sorted into three parts: the quality of life and two supporting domains [7]. While the quality of life provides a broad and vivid image of how an individual rates and perceives their current quality of life, the two domains of well-being and energy and vitality can each be further divided into six detailed sub-domains: emotion, self-image, self-competence, personal pleasure, physical state, and routine arousal [7]. The Farage quality of life instrument provides a meticulous 1-5 ranking structure based on the experience of participants, quantitating the psychological

experience of participants into data that can be analyzed and compared using the calculated p-value [7]. The study has mainly focused on three age groups, each representing 89 new mothers, 91 women national representatives, and 40 younger cosmetics users [7]. Results have shown that each representative group has displayed varying results and ranking towards different sub-domains due to the variations in skin condition based on age, experience, fluctuation in emotion, self-confidence, physical appearance, and other domains [7]. What differentiates the young cosmetics users from the new mothers to the national representatives is the significant enhancement of the mean rate of the overall quality of life after 4 weeks of product testing and 5 days of product deprivation (33 days in total) [7]. The overall quality of life has reached a p-value of 0.005, reflecting the result of the study is statistically significant, rejecting the null hypothesis at the same time [7]. In the Well-Being Domain, the sub-domain reflecting self-image had also shown a significant improvement, with a p-value of 0.004 at the end of the testing period, and a p-value of 0.08 at the end of the product deprivation period [7]. However, the specified effects of skin care may include certain degrees of variations with the effects of cosmetics due to their different qualities in changing one's appearance, but these two variables have both been shown to create positive impacts on a teenager's self-image.

The psychological benefits can be further understood through the sensory, perceptual, and emotional attributions [8]. What was found unique about skincare compared to other tactile stimuli or strategies is that skincare provides additional alteration to the sensory function of the skin, bringing physical and perceptual benefits at the same time [8]. According to Guest et al's research study, the method of "Tactile Perception Task" (TPT) is generally defined as "a set of attributions designed to enable ratings of all of the important tactile perceptual attributions, but with some important differences" [8]. The TPT can be applied in various settings to measure the effectiveness and functioning of products, but also the emotional impact of skincare. After the conduction of the McGill Pain Questionnaire, the research group concluded that the tactile perception task can be sorted into two groups: sensory and emotional attributions [8]. Sensory attributions are solely the texture sensed after the tactile stimuli of skincare (ex: fluid, polished, smooth) [8]. On the other side, emotional attributions can be generally defined as the mood or the emotion when being touched during skincare (ex: relaxation, calm) [8]. An example of emotion attribution would be switching from a state of exhaustion to relaxed or calm after skin care [8]. These two characteristics can be combined to describe the effectiveness of the process and the functioning of the product [8]. In another study conducted by Japanese

researchers, the process of skincare can be understood biologically through the mechanoreceptors in the skin layer, in which the action of applying moisturizer or face cream onto the skin creates a stimulus to the nervous system [9]. The stimulus is then transferred to the somatosensory cortex of the cerebrum through different nerves interpreting the smoothness or the warmth that this action brings [8,9]. Other than what was perceived by the somatosensory cortex of the cerebrum through divergent nerve cells, the hypothalamus also creates an arousal in the autonomic nervous system creating a sense of relaxation and refreshment [8,9]. A quantitative method of measuring the change in saliva concentration was conducted to measure the effectiveness of skincare towards psychological impact in four tests. Two variables were presented and measured in the study, comparing the change in saliva cortisol concentration and the saliva secretory immunoglobulin A concentration using different massaging skin care methods [9]. Saliva cortisol is capable and responsible for detecting stress factors, where the increase in saliva cortisol corresponds with high-stress levels. Saliva secretory immunoglobulin A can indicate the level of immunity, presenting a positive correlation with immunity [9]. The first three tests were conducted by skincare professionals, while the last one was tested by an individual without professional skincare acknowledgment [9]. Ignoring the independent variables of the professionalism of the applicator (the functioning and quality of the product, and the fragrance of the product), all four tests have shown a decrease in the saliva cortisol concentration and an increase in the saliva secretory immunoglobulin A concentration [9]. Differences in the decreased and increased levels were indicated due to the differences in professionalism, massaging techniques, scent of the product applied, and the functioning of the product. The result of the study reflected the effectiveness of skincare regardless of the functioning, fragrance, texture, or methods applied [9]. With the educational pressure that current high school students are bearing, skincare is effective due to its flexibility towards the applied product's function, fragrance, and method.

4. Further Applications and Improvements

With the increased psychological support among teenagers, dermatological symptoms have been considered as an indicating factor towards depression, anxiety, social anxiety, and other psychological dysfunctions among individuals experiencing adolescence [5]. While the importance of skincare among teenagers is not widely recognized, actions such as establishing Teenage and Young Adult (TAT) dermatology clinics can be applied to support both

the physical and psychological needs of teenagers [10]. The targeting objective of establishing Teenage and Young Adult dermatology clinics is to bring up the recognition and awareness of how dermatology symptoms have lowered teenage self-esteem, reduced engagement in social activities, as well as triggered anxious symptoms [10]. With further recognition and awareness of existing issues, teenager's mental health can be improved by addressing those hidden issues. As shown in a past study, cases of TAT clinics were established early in 2013, providing teenagers and patients in the stage of early adulthood with in-depth information on online websites and detailed life quality questionnaires investigating their performance [10]. Different from regular psychological or dermatological-related clinics, TAT clinics specifically provide services for patients in specific age groups, resulting in more specified and pertinent treatment [10]. Through the 51% of surveys returned, 100% of the patients have reported the clinic to be satisfying or very satisfying, reflecting the effectiveness of this application at the same time [10]. With the high effectiveness and willingness of the participants, the TAT clinic program can be applied in modern society to bring up awareness of the existing dermatology issues and meet teenagers' psychological needs.

5. Limitations

The investigation surrounding the effectiveness and impact of skincare on teenage mental health is limited, so the research result of the study may include certain degrees of uncertainties and deviations. In the section "Effectiveness of Skincare Towards the Maintenance of Psychological Wellbeing", the information is conducted through the study investigating how the use of cosmetics among young adults affects their psychological well-being, which slightly deviates from the research goal of the current study. Deviations and uncertainties may include between the effectiveness of the use of cosmetics and skincare due to cosmetics providing instant improvements and changes in appearance, while skincare requires long-term maintenance to provide slight change. The average age of participants in different studies investigating the effectiveness of skincare may also vary, creating inaccuracies in the result of the study because different age groups may develop different skincare experiences due to experience, changes in cognition, thoughts, and understanding. The study could also improve by providing more accurate and in-depth information on how skincare provides benefits to teenage mental health from a biological perspective. More specified and accurate data could be obtained from a questionnaire investigating and collecting more updated information and thoughts from teenagers.

6. Conclusion

With the existing stigmas and unacceptance of psychological issues among teenagers, related interventions and actions taken to bring up the awareness of the importance of self-esteem among adolescents are inefficient. The study correlates the existing dermatological issue of acne among teenagers with an applicable intervention method of skincare, aiming to bring up the awareness of self-esteem among teenagers and possible actions to apply to resolve the existing societal issue. Results of the literature reviews have shown that the application of cosmetics and skincare provides both physical and psychological benefits to teenagers after a long period of persistence and practice. On the surface, skincare provides physical benefits through the application of functional skincare products, providing the functions of healing and diminishing the severity of the acne issue. Diving into the psychological purpose, statistical comparison and data have revealed that both the process and result of skincare after a month of persistence have shown a positive impact on an individual's self-esteem, estimation of quality of life, functioning of the immune system, as well as diminished stress levels. These results are supported by the diminished concentration level in saliva cortisol and increased concentration in saliva secretory immunoglobulin A, as well as the increased ratings towards quality of life and self-esteem. Establishing teenage and young adult clinics specifically focusing on the psychological and physical brought by acne can effectively resolve acne issues as well as bring up the awareness of skincare, self-esteem, and self-efficacy during the period of adolescence at the same time. However, with the limited resources related to the correlation between skincare and psychological well-being among teenagers, the correlation between these two variables is not fully supported. Supplementary materials like biological and psychological-based research studies, large sample size questionnaires, and pertinence studies should be applied to improve the reliability and representativity of the study. The study is important to bring up the recognition and awareness of the effectiveness of skincare towards teenage mental health, providing a possible mindset and action to take to improve teenage mental health.

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