

Exploring the Connection Between Facial Skin Cleansing Habits and Acne Vulgaris: A Comprehensive Review

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ABSTRACT: Acne Vulgaris (AV) is a chronic inflammatory condition affecting the pilosebaceous follicles, characterized by multifactorial causative factors and clinical manifestations such as cysts, pustules, comedones, nodules, and papules. While AV is not life-threatening, it can significantly impact an individual's well-being by reducing self-esteem, increasing anxiety, and affecting their economic and social life. This paper conducts a comprehensive analysis of existing literature, synthesizing information from multiple reputable sources. The main objective of this review is to explore the implementation of treatments related to the relationship between skin cleansing habits and Acne Vulgaris. The connection between facial skin hygiene and the occurrence of Acne Vulgaris is of significant interest. One key aspect is the potential reduction in Acne Vulgaris when individuals maintain good facial skin hygiene practices. When facial skin is cleaned appropriately, it hinders the accumulation of excess sebum, one of the contributing factors to the development of Acne Vulgaris. It is essential to acknowledge the variability in research outcomes. While certain studies propose that excessive facial cleansing may worsen Acne Vulgaris due to potential skin irritation and glandular complications, others recommend a minimum of twice-daily facial cleansing with a gentle cleanser to maintain skin well-being. The optimal cleansing frequency may depend on individual skin conditions and the presence of comedonal lesions.

Keywords: Acne Vulgaris, Skin Cleansing, Facial Hygiene



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INTRODUCTION

One of the skin diseases that can resolve spontaneously is Acne Vulgaris (AV). AV is described as chronic inflammation of pilosebaceous follicles with multifactorial etiology and clinical manifestations including cysts, pustules, comedones, nodules, and papules (Tabri, 2018). This skin condition is not fatal or life-threatening, but it can be quite distressing, causing a lack of self-confidence and anxiety in affected individuals, impacting their economic and social lives. Research conducted showed that out of 42 student AV patients sampled, 62% had a mild category, 19.0% had a moderate category, and 19.0% had a severe category (Skadins et al., 2021). Maintaining

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hygiene behavior is crucial in assessing the health status of individuals. Hygiene behavior maintenance, especially concerning facial skin, is exemplified through the awareness and initiative of individuals in maintaining cleanliness, health, and preventing the onset of diseases.(Alshammrie et al., 2020; Juhl et al., 2018)

Various aspects of personal hygiene and cleanliness include hair, ears, eyes, nails, skin, and clothing. The concept of hygiene behavior regarding skin cleanliness, particularly facial skin hygiene and care, is of paramount importance because the skin, being the body's superficial defense, is the first line of protection against pathogenic microorganisms that can cause diseases, such as Acne Vulgaris(Omran & Mansori, 2018). Therefore, the concept of hygiene behavior, especially regarding facial skin, is vital for every individual to maintain skin cleanliness. There are various factors, aside from age and gender, that can contribute to Acne Vulgaris, including genetics, hormonal factors, psychological stress, cosmetics, medications, diet, and environmental conditions such as temperature and humidity.(George & Sridharan, 2018; Rathi, 2011)

In addition to all these factors, facial skin cleanliness is important because it can contribute to the development of Acne Vulgaris. This is because the skin can serve as an entry point for microorganisms that may trigger Acne Vulgaris(Yolanda et al., 2021). The relationship between personal hygiene and Acne Vulgaris suggests that regular facial cleansing can help reduce excess oil and dirt on the face, potentially lowering the occurrence of Acne Vulgaris(Cabral et al., 2018; Chen et al., 2021). However, research indicates that the frequency and type of facial cleansing used by individuals may not significantly impact the occurrence of Acne Vulgaris.(Del Rosso, 2013; George & Sridharan, 2018) Given this background, the researcher is interested in conducting a literature review titled "Exploring the Connection Between Facial Skin Cleansing Habits and Acne Vulgaris."

METHOD

This academic paper offers a comprehensive analysis of the current body of literature, consolidating information from multiple reputable sources. The primary objective of this review is to investigate the utilization of treatments related to the relationship between skin cleansing habits and Acne Vulgaris(Hawkins et al., 2021; Santosa et al., 2023). The data for this evaluation was systematically collected through an extensive search of electronic databases, which included research publications and review papers. Crucial insights were meticulously gathered and synthesized from each selected source, with a strong emphasis on their relevance to the central topic(Davies, 2020). This collaborative approach allows for the formulation of conclusions concerning the essential importance of managing skin cleansing habits, addressing Acne Vulgaris, and employing therapeutic strategies, along with their resulting medical implications.

RESULT AND DISCUSSION

Acne Vulgaris (AV) is a complex skin condition affecting the face. Facial skin hygiene behaviors involve actions to maintain facial skin cleanliness and health(Ogé et al., 2019). These behaviors encompass routines for face cleansing, the frequency of face washing, the use of moisturizers, and the application of facial cleansers(Rhee et al., 2018). A literature review has examined various hygiene behaviors, including face washing habits, washing frequency, facial cleanser usage, and moisturizer application as part of facial skin hygiene practices. The relationship between these hygiene behaviors and Acne Vulgaris, particularly face washing habits, has been discussed in several articles. Research has indicated that regular face cleaning and the use of cleansers to reduce facial oil are associated with the occurrence of Acne Vulgaris. This is supported by a 2020 study, which revealed that individuals with good facial hygiene habits, including routine face cleaning and facial cleanser usage, did not experience Acne Vulgaris. These findings align with another 2020 study, which showed that students who did not regularly cleanse their faces were more likely to experience Acne Vulgaris.(Altun & Topaloglu Demir, 2022; Rathi, 2011)

Treatment and cleansing for individuals with Acne Vulgaris can be more successful by maintaining skin cleanliness(Toama et al., 2021). Face washing is a crucial hygiene behavior in reducing the occurrence of Acne Vulgaris. The recommended frequency for face washing is 2-3 times a day, but excessive washing, scrubbing, or drying should be avoided to prevent prolonging the acne cycle. Excessive washing can strip the skin of its natural oils, leading to irritation and stimulating excessive oil production. Enhanced facial skin cleanliness can reduce excess oil production on the face.(George & Sridharan, 2018; Mancini et al., 2011) Additionally, maintaining skin hygiene can prevent bacteria from entering pilosebaceous follicles, thus averting inflammation and, subsequently, the onset of Acne Vulgaris. Several articles in the literature have identified indicators of improvement in Acne Vulgaris. A study from 2017 found that regular face washing can reduce the occurrence of Acne Vulgaris. The significance of face washing as an indicator of Acne Vulgaris improvement is further supported by an article from 2018, which demonstrates a significant relationship between facial skin cleanliness and the occurrence of Acne Vulgaris in the study's respondents.(Juhl et al., 2018; Tunçer Vural, 2022)

The connection between facial skin hygiene and the occurrence of Acne Vulgaris is a topic of significance. A key aspect is the potential reduction in Acne Vulgaris when individuals maintain good facial skin hygiene practices. The underlying mechanism for this reduction is the moderation of excess oil production on the skin. Improved facial cleansing habits play a pivotal role in achieving this balance.(Del Rosso, 2013; Thiboutot & Del Rosso, 2013) When facial skin is cleaned appropriately, it hinders the accumulation of excess sebum, one of the contributing factors to the development of Acne Vulgaris. The reduction in oiliness on the skin can have a direct impact on the frequency and severity of Acne Vulgaris outbreaks. Moreover, adhering to a consistent skin cleansing routine can deter harmful bacteria from infiltrating the pilosebaceous follicles. This, in turn, mitigates the inflammatory processes responsible for the formation of Acne Vulgaris lesions. Consequently, achieving clearer, healthier skin becomes an achievable goal through proper skin cleansing practices.(Daye et al., 2020; Tunçer Vural, 2022)

However, it's important to acknowledge a varying perspective on this matter. Research conducted by Alfalogy and colleagues brought forth findings that raised questions regarding the relationship between facial skin hygiene and Acne Vulgaris. Their study suggested that individuals who excessively washed their faces were more likely to experience Acne Vulgaris. This counterintuitive connection was attributed to the potential harm caused by overzealous cleansing.(Draelos et al., 2006; Rath, 2011) Excessive washing, accompanied by vigorous scrubbing, may lead to skin irritation and worsen the condition of the sebaceous glands. Such exacerbation can, paradoxically, contribute to the development of Acne Vulgaris. In light of these differing findings, it is evident that the relationship between skin cleansing habits and Acne Vulgaris is multifaceted and not universally straightforward. Recognizing the importance of balance, Hastuti and her research team have made recommendations based on their study. They suggest that individuals aim to cleanse their faces at least twice a day, but not exceeding three times a day, and to use a gentle, mild cleanser in the process. However, they further emphasize that the optimal frequency may be contingent on an individual's specific skin condition and the presence of comedonal lesions. The relationship between facial skin hygiene and Acne Vulgaris is intricate. Although practicing good facial skin hygiene is typically advantageous in reducing the occurrence of Acne Vulgaris, it is essential to strike a balance. Excessive washing and aggressive cleansing may worsen the condition. Hence, individuals are advised to seek an appropriate middle ground that aligns with their specific skin type and condition. This approach encourages regular, yet not excessive, cleansing to foster healthier skin and minimize the risk of developing Acne Vulgaris.(Alshammrie et al., 2020; Juhl et al., 2018).

CONCLUSION

The prevalence of Acne Vulgaris can be diminished by adopting effective facial skin hygiene practices, thereby mitigating excessive sebum production and inhibiting bacterial infiltration into the skin's follicles(Melnik, 2018). However, it is important to acknowledge the variability in research outcomes. While certain studies propose that excessive facial cleansing may worsen Acne Vulgaris due to potential skin irritation and glandular complications, others advocate a minimum of twice-daily facial cleansing with a gentle cleanser for maintaining skin well-being. The optimal cleansing frequency may depend on individual skin conditions and the presence of comedonal lesions(Balighi et al., 2020).

REFERENCE

- Alshammrie, F. F., Alshammari, R., Alshammari, R., Khan, F. H., & Khan, F. H. (2020). Epidemiology of Acne Vulgaris and Its Association With Lifestyle Among Adolescents and Young Adults in Hail, Kingdom of Saudi Arabia: A Community-Based Study. *Cureus*. <https://doi.org/10.7759/cureus.9277>

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- Altun, E., & Topaloglu Demir, F. (2022). Occupational facial dermatoses related to mask use in healthcare professionals. *Journal of Cosmetic Dermatology*, 21(6), 2535–2541. <https://doi.org/10.1111/jocd.14415>
- Balighi, K., Abedini, R., Ghanadan, A., Peymanfar, A. A., Akhdar, M., & Etesami, I. (2020). Self-limited acne agminate-like granulomatous reaction to facial laser rejuvenation in a patient with comedonal acne vulgaris. *Journal of Cosmetic and Laser Therapy*, 22(6–8), 241–243. <https://doi.org/10.1080/14764172.2021.1921810>
- Cabral, Y. M., Pesqueira, A. A., Moreno, A., Goiato, M. C., & Haddad, M. F. (2018). Effect of different methods of hygiene on the color stability of extrinsically pigmented facial silicone. *Brazilian Journal of Oral Sciences*, 17. <https://doi.org/10.20396/BJOS.V17I0.8652637>
- Chen, X., Munoz, B., Wolle, M. A., Woods, G., Odonkor, M., Naufal, F., Mkocha, H., & West, S. K. (2021). Environmental factors and hygiene behaviors associated with facial cleanliness and trachoma in Kongwa, Tanzania. *PLoS Neglected Tropical Diseases*, 15(10). <https://doi.org/10.1371/journal.pntd.0009902>
- Davies, M. A. (2020). Cleansing-induced changes in skin measured by in vivo confocal raman spectroscopy. *Skin Research and Technology*, 26(1), 30–38. <https://doi.org/10.1111/srt.12760>
- Daye, M., Cihan, F. G., & Durduran, Y. (2020). Evaluation of skin problems and dermatology life quality index in health care workers who use personal protection measures during <scp>COVID</scp>-19 pandemic. *Dermatologic Therapy*, 33(6). <https://doi.org/10.1111/dth.14346>
- Del Rosso, J. Q. (2013). The role of skin care as an integral component in the management of acne vulgaris: part 1: the importance of cleanser and moisturizer ingredients, design, and product selection. *The Journal of Clinical and Aesthetic Dermatology*, 6(12), 19–27. <https://doi.org/24765221>
- Draelos, Z. D., Ertel, K. D., & Berge, C. A. (2006). Facilitating facial retinization through barrier improvement. *Cutis*, 78(4), 275–281. <https://doi.org/17121065> Cite
- George, R., & Sridharan, R. (2018). Factors aggravating or precipitating acne in Indian adults: A hospital-based study of 110 cases. *Indian Journal of Dermatology*, 63(4), 328. https://doi.org/10.4103/ijd.IJD_565_17
- Hawkins, S., Dasgupta, B. R., & Ananthapadmanabhan, K. P. (2021). Role of pH in skin cleansing. *International Journal of Cosmetic Science*, 43(4), 474–483. <https://doi.org/10.1111/ics.12721>
- Juhl, C., Bergholdt, H., Miller, I., Jemec, G., Kanters, J., & Ellervik, C. (2018). Dairy Intake and Acne Vulgaris: A Systematic Review and Meta-Analysis of 78,529 Children, Adolescents, and Young Adults. *Nutrients*, 10(8), 1049. <https://doi.org/10.3390/nu10081049>
- Mancini, A. J., Baldwin, H. E., Eichenfield, L. F., Friedlander, S. F., & Yan, A. C. (2011). Acne Life Cycle: The Spectrum of Pediatric Disease. *Seminars in Cutaneous Medicine and Surgery*, 30(3), S2–S5. <https://doi.org/10.1016/j.sder.2011.07.003>
- Melnik, B. C. (2018). Acne vulgaris: The metabolic syndrome of the pilosebaceous follicle. *Clinics in Dermatology*, 36(1), 29–40. <https://doi.org/10.1016/j.clindermatol.2017.09.006>

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- Ogé, L. K., Broussard, A., & Marshall, M. D. (2019). Acne vulgaris: Diagnosis and treatment. *American Family Physician*, 100(8), 475–484. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073416937&partnerID=40&md5=01a56739b9229d8130b99218e42989cf>
- Omran, A. N., & Mansori, A. G. (2018). Pathogenic yeasts recovered from acne vulgaris: Molecular characterization and antifungal susceptibility pattern. *Indian Journal of Dermatology*, 63(5), 386–390. https://doi.org/10.4103/ijd.IJD_351_17
- Rathi, S. (2011). Acne vulgaris treatment : The Current Scenario. *Indian Journal of Dermatology*, 56(1), 7. <https://doi.org/10.4103/0019-5154.77543>
- Rhee, Y., Palmer, L. J., Okamoto, K., Gemunden, S., Hammouda, K., Kemble, S. K., Lin, M. Y., Lolans, K., Fogg, L., Guanaga, D., Yokoe, D. S., Weinstein, R. A., Frendl, G., & Hayden, M. K. (2018). Differential Effects of Chlorhexidine Skin Cleansing Methods on Residual Chlorhexidine Skin Concentrations and Bacterial Recovery. *Infection Control and Hospital Epidemiology*, 39(4), 405–411. <https://doi.org/10.1017/ice.2017.312>
- Santosa, A., Choi, E., & Chandran, N. S. (2023). Impact of Hand Hygiene and Mask-Wearing Practices on Hand Eczema and Facial Acne Incidence in Healthcare Workers during COVID-19 Outbreak. *Annals of Dermatology*, 35(4), 313–331. <https://doi.org/10.5021/ad.20.189>
- Skadins, I., Zavorins, A., Kroica, J., Pavloviča, T., Bruzgule, D., & Averjanova, T. (2021). Antibacterial susceptibility testing of cutibacterium acnes in acne vulgaris patients. *Clinical, Cosmetic and Investigational Dermatology*, 14, 671–677. <https://doi.org/10.2147/CCID.S311624>
- Tabri, F. (2018). Analysis of the association between sebum levels and staphylococcus epidermidis infection identified by PCR in comedonal, papular, and nodular acne vulgaris. *Indian Journal of Public Health Research and Development*, 9(12), 1329–1333. <https://doi.org/10.5958/0976-5506.2018.02037.5>
- Thiboutot, D., & Del Rosso, J. Q. (2013). Acne Vulgaris and the Epidermal Barrier: Is Acne Vulgaris Associated with Inherent Epidermal Abnormalities that Cause Impairment of Barrier Functions? Do Any Topical Acne Therapies Alter the Structural and/or Functional Integrity of the Epidermal Barrier? *The Journal of Clinical and Aesthetic Dermatology*, 6(2), 18–24.
- Toama, M. A. E. Q., Samir, M. A., & Omar, H. H. (2021). Modalities in Acne Vulgaris Treatment: Review Article. *Egyptian Journal of Hospital Medicine*, 85(2), 4167–4172. <https://doi.org/10.21608/EJHM.2021.207814>
- Tunçer Vural, A. (2022). The development of acne vulgaris due to face masks during the pandemic, risk awareness and attitudes of a group of university students. *Journal of Cosmetic Dermatology*, 21(11), 5306–5313. <https://doi.org/10.1111/jocd.15120>
- Yolanda, M. O., Jusuf, N. K., & Putra, I. B. (2021). Lower facial skin hydration level increases acne vulgaris severity level. *Bali Medical Journal*, 10(3), 1081–1084. <https://doi.org/10.15562/bmj.v10i3.2195>