

Does acne equal #dirtylaundry? Social media versus evidence-based medicine

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To the Editor:

We very much appreciate that medical organizations and physicians are seeking to engage the public and provide sound advice from a reputable source regarding skin care. This information has been helpful and reasonable. However, we found one post by the American Academy of Dermatology (AAD) Instagram account linking cleanliness and acne on April 19, 2021, stating: "Change your sheets and pillowcases weekly to prevent acne [1]." If we are recommending actions as medical advice requiring time and energy on the part of the public these actions should be based upon evidence. This advice was also recommended to the public on the AAD online webpage [2]. Is there scientific evidence to support this statement? We performed a search of PubMed, Embase, and Cochrane using the terms "acne" and "bedding and linens" and we could not find any supporting evidence for this recommendation.

As of May 2022, the Instagram account had over 83,000 followers. Physicians and patients may turn to social media for medical information. In a study surveying over 100 acne patients, 45% reported looking to social media for acne treatments. Only 7% had significant improvement of acne using advice from social media postings [3].

When surveyed about acne, patients tended to believe in myths that acne is associated with poor skin hygiene and dirt and that hygienic practices provide patients with a sense of control [4]. Washing

bedding in hopes of reducing acne may provide some sense of control. However, encouraging patients (or their parents) to launder their sheets once per week (and pillowcases more often than that) could lead to increased time, money, and stress which might otherwise be spent pursuing proven treatments. Although usually one purpose of the laundering process is the removal and inactivation of microorganisms on the fabric as well as the cleaning of laundry items, it has been shown that the washing machine, ironically, can be considered a source of re-contamination of textiles [5].

We were unable to find any reference to acne prevention in these discussions. Nor did we find evidence of *Cutibacterium acnes* (formerly *Propionibacterium acnes*) specifically. Is the thought that washing bedding affects the anaerobic organism *C. acnes*? Or is it theorized that less dirt and skin debris will improve the inflammation associated with acne? The organization's website read, "Dead skin cells, bacteria, and dirt will build up on these surfaces [*pillowcases*], which can clog your pores [1]." Early in the pandemic, "hygiene theater," or the practice of sanitizing surfaces excessively to make others feel safe, led many people to spend time viewing fomites as a source of COVID-19. This might have served to make us feel safer or give us a sense of control, yet it lacked robust evidence that the actions were indeed effective [6]. In fact, the Centers for Disease Control and Prevention updated their guidelines in 2021 to state that contaminated

surfaces do not “contribute substantially to new infections [7].” This was supported by evidence that simply “cleaning”, rather than aggressive “disinfecting,” is enough to reduce transmission of the virus [8].

We reached out to the AAD regarding this post. We were informed that the Public Education Committee reviewed the information and decided to remove this from social media. We were encouraged by this action and their receptiveness to feedback. However, on April 12, 2022, the Instagram account posted another statement linking cleanliness to acne stating, “Wash clothes after every workout to help prevent acne breakouts [9].” Because people depend so much on organizations such as the AAD as a voice

of reason in providing frequent, relevant, and accurate information, we suggest that as member dermatologists and health care professionals, we should all be diligent in monitoring information provided to the public for its accuracy. As with many laudable goals, it truly does take a village. With social media on the rise, organizations are expected to provide more and more content, which is a daunting task. As with the “news” it takes constant vigilance to make sure that advice is based upon the best available evidence at the time.

Potential conflicts of interest

The authors declare no conflicts of interest.

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