CHAPTER 3

‘They May Strike Back at Society in a Vengeful Manner’: Preventing the Psychological Scars of Acne in Post-war America

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Introduction

In 2013, San Diego-based physician Dr. Richard M. Timms published a study entitled: ‘Moderate acne as a potential barrier to social relationships: Myth or reality’. Timms divided his 143 participants into two groups: one set were shown pictures of clear skinned models, while the other was shown photographs of models with facial acne. Asked to guess the age of the models and rate them on a scale of sixteen personality items, the volunteers shown the clear skinned models believed them to be both older and more mature than the models suffering from acne. Moreover, the participants claimed they were more likely to be friends with and attracted to those with clear skin. Timms concluded that ‘moderate acne vulgaris could be a potential barrier to social relationships for

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D. Kritsotaki et al. (eds.), *Preventing Mental Illness*,
Mental Health in Historical Perspective,
https://doi.org/10.1007/978-3-319-98699-9_3

young people not simply because of their social anxiety but because they may well be meeting with prejudice'.[1]

Concern about the psychological effects of acne first emerged in earnest after World War II. Although earlier physicians acknowledged that acne caused a great deal of anxiety and misery for sufferers, especially girls and women, post-war studies raised concerns over the potentially serious psychological, social and economic implications for teenage acne sufferers. As a distinct and influential youth culture developed after World War II, the medical establishment was faced with the challenge of meeting their complex medical and social needs. James Roswell Gallagher, the founder of adolescent medicine in the United States, encouraged both health professionals and parents to be more respectful of adolescents' wishes and refrain from treating them like children. When his teenage patients were unable to conform to the idealised white, healthy and blemish-free body, Gallagher argued that emotional disturbance could result. Treating acne effectively not only prevented facial scarring, but it also prevented the marring of the psyche. In both journal articles and health columns, post-war physicians urged adolescent sufferers and their parents to seek medical attention for their problematic skin before it was too late. For millions of American teens, the prevention of psychological distress was only skin deep.

The history of acne, though largely unwritten,[2] provides an excellent lens through which to understand both the development of adolescent medicine and rising concerns about youth mental health following the World War II. According to Heather Munro Prescott, adolescent medicine grew out of profound changes in theories about adolescence that emerged during the 1930s and 1940s. The first facility dedicated exclusively to the well-being of adolescents was the Boston Children's Hospital, founded by Roswell Gallagher in 1952. Prescott claims that Gallagher encouraged a radically different clinical approach to dealing with adolescents, which emphasised listening carefully to the complaints

[1] Richard M. Timms, "Moderate Acne as a Potential Barrier to Social Relationships: Myth or Reality?," *Psychology, Health & Medicine* 18, no. 3 (July 2013): 5, https://doi.org/10.1080/13548506.2012.726363.

[2] Robert Grant, "The History of Acne," *Proceedings of the Royal Society of Medicine* 44, no. 8 (August 1951): 647–52.

of young patients—no matter how trivial.[3] In the post-war period, the increasing number of lecturers devoted to highlighting the problems posed by acne proved that important groups like the American School Health Association were beginning to take notice. In 1957, for instance, San Francisco-based physician Herbert Lawrence presented a paper on the topic that served to suggest acne could be both caused by emotional turmoil and exacerbated by it, therefore resulting in a vicious cycle.[4]

As Mark Jackson has demonstrated, emotional tension or stress became a source of great concern for medical specialists during the post-war period. Specifically, 'post-war communities struggled to come to terms with the consequences of economic depression, the rise of totalitarianism, and the human cost of concentration camps, mass starvation, and atomic warfare'.[5] In this climate of fear, medical professionals feared that rising levels of poor mental health would lead to an increase in psychosomatic disorders, and viewed skin disorders such as acne as a form of psychosomatic illness, exacerbated by psychological factors. In the United States, for example, the Health Examination Survey between the years of 1966 and 1970 published a special report detailing the range of skin conditions prevalent amongst 12 to 17 year olds. Aside from investigating how many adolescents suffered from the condition, they devoted a segment of the report to discussing the link between stress, nervousness and the onset of acne thus implying that there was also a psychosomatic element to the condition.[6]

This chapter begins by arguing that increased medical concern about acne was a consequence of the development of adolescent medicine and worries about the mental health of young Americans. It investigates medical conceptualisations of the psychological causes and effects of acne during the post-war period, demonstrating how the condition became

[3]Heather Munro Prescott, *A Doctor of Their Own: The History of Adolescent Medicine* (Boston: Harvard University Press, 1998), 177.

[4]Herbert Lawrence, "Acne, The Complexion Problem of Young Adults," Thirty-First Annual Meeting of the American School Health Association (November 11–15, 1957), *Journal of School Health* 27, no. 6 (June 1957): 164–70, https://doi.org/10.1111/j.1746-1561.1957.tb00860.x.

[5]Mark Jackson, *The Age of Stress: Science and the Search for Stability* (Oxford: Oxford University Press, 2013), 141.

[6]Jean Roberts and Jacqueline P. Ludford, "Data from the National Health Survey, Skin Conditions of Youths 12–17 Years, United States," U.S. Department of Health, Education, and Welfare, 157, no. 11 (August 1976), 1.

linked to mental health problems in adolescents amid broader concerns about youth mental health, juvenile delinquency, sexual promiscuity and racial unrest. Finally, it considers the range of different treatments offered to adolescent acne sufferers that promised to lessen both the aesthetic and psychological impact of the condition.

Acne and the Birth of Adolescent Medicine

In 1956, an article entitled 'Their Speciality is Teen-agers' appeared in the magazine *Parents and Family Home Guide*. Its author, editor Vivian Cadden described how staff at the Adolescent Unit of The Children's Hospital in Boston were wrestling with the 'exasperating, illogical and senseless' nature of teenage patient health. She explained how teenage girls suffering from a heavy cold would spend a day at the beach and not 'give a hoot' whether they came down with pneumonia. These same girls, however, would feign illness and 'mope around' to convince their parents to let them stay at home 'all because she has developed a pimple on her nose'.[7]

Founded by paediatrician James Roswell Gallagher in 1951, the Adolescent Unit was the 'first comprehensive medical section caring for patients 12 to 21 years of age'.[8] According to Gallagher, family physicians, paediatricians, parents and teachers were all required to treat 'young people as adolescents, not as little children, not as adults; they are not little boys or little girls any more, and they are not adults yet: they are young people who are beginning to be adults'.[9] Until this simple fact was understood, Gallagher believed the adolescent would thus continue to be viewed as something of an 'enigma'.[10]

[7]Vivian Cadden, "Their Specialty Is Teen-Agers: This Account of What Is Being Found Out and Done for Teen-Agers at the Adolescent Unit of the Children's Hospital in Boston is Full of Helpful Ideas for Parents Everywhere," *Parents' Magazine & Family Home Guide* 31 (July 1956): 83–86.

[8]Wolfgang Saxon, "James Roswell Gallagher, 92, Leader in Adolescent Medicine," *The New York Times*, November 15, 1995, https://www.nytimes.com/1995/11/15/us/james-roswell-gallagher-92-leader-in-adolescent-medicine.html.

[9]Ibid.

[10]James Roswell Gallagher, "Various Aspects of Adolescence," *The Journal of Paediatrics* 39, no. 5 (November 1951): 532.

Gallagher's patients were part of the baby boom generation who helped create a distinct youth culture in the United States during the 1950s. Representing a whole new consumer market for the pharmaceutical, music, film and fashion industries (amongst others) to exploit, baby boomers also had divergent physical, social and psychological needs. In Gallagher's studies evaluating the emotional problems facing American teens, anxieties about various forms of abnormality were pronounced:

> The adolescent who is not maturing as rapidly as his or her companions, the boy who is shorter or the girl who is taller or more obese than usual, not only dislikes being different, but may become emotionally disturbed, fearing that she will keep on getting taller or that he or she will never mature.[11]

From a young age, teenage patients would have been shown charts relating to the desired standard height and weight measurements which 'were compatible with normality'. Gallagher argued that adolescents were concerned about being classified as abnormal and visibly different. He warned that, as adults 'seem to prefer that others conform to the average', there was a general belief that being too fat or thin was undesirable—a belief that frequently rubbed off on adolescents.[12]

Gallagher's positive, empathetic approach to adolescent health soon filtered down to health professionals charged with treating acne. In 1931, Swiss dermatologist Bruno Bloch studied over two thousand girls and boys aged between 6 and 19 years for signs of acne. Finding comedones and seborrhoea (considered the early stage of the condition) in over 70% of the 4000 patients he examined, Bloch argued that the 'appearance and development of the lesions of acne paralleled the development of the signs of puberty, i.e., the growth of axillary and pubic hair, the appearance of the secondary sexual characteristics and the beginning of the menses in girls'.[13] Widely respected as a dermatologist

[11] James Roswell Gallagher and Constance D. Gallagher, "Some Comments on Growth and Development in Adolescents," *Yale Journal of Biology and Medicine* 25, no. 5 (April 1953): 335.

[12] Ibid., 348.

[13] Bruno Bloch, "Metabolism, Endocrine Glands and Skin Diseases with Special Reference to Acne Vulgaris and Xanthoma," *The British Journal of Dermatology and Syphilis* 43, no. 2 (February 1931): 51–87.

and meticulous in his research, Bloch's study was thus said to have proven, once and for all, that acne was indeed nothing more than a normal reaction to the physiological changes taking place during puberty.[14] Although acne had been seen as merely a 'physiological manifestation of puberty' prior to the war, Gallagher's influence helped to change such dispassionate, resigned attitudes.[15] An article published in the *American Journal of Nursing* in 1950 signified the apparent shift in perception. In it, Margaret Reilly, based at the Massachusetts General Hospital of Nursing, expressed frustration at the lack of interest nurses and doctors expressed towards acne. In her experience, 'many adolescents had been dismayed by a causal "Oh it's your age; buck up and you will outgrow it!"', when consulting their general practitioner. Such sweeping statements were dangerous because they offered teenagers and their families false hope. Having had their fears allayed, acne sufferers would fail to seek medical expertise and irreversible skin damage would often ensue, characterised by deep pit marks and facial scarring. Reilly argued that acne undermined adolescents' desire to be socially accepted, with the result that many people exhibited 'an unreasonable fear of "catching" skin infections'.[16] Gallagher and his colleagues felt it necessary to 're-emphasise' some key points concerning how best to approach the skin ailment in 1956. The problem of acne was significant not only due to its ubiquity but also because of its potential impact on the sufferer's personality. As such acne management required an in-depth 'knowledge of the patient's personality' as well as the relevant medical literature. Physicians should also maintain a genuine interest in the patient's extracurricular

[14] Ibid.

[15] Lester Hollander, "The Role of Endocrine Glands in the Etiology and Treatment of Acne," *Archives of Dermatology and Syphilology* 3, no. 5 (March 1921): 593, https://doi.org/10.1001/archderm.1921.02350180017002. Although pre-war studies examined the role the endocrine glands, dietary influences and bacteria played in causing acne, an increasing number of studies in the post-war period investigated whether acne could be caused by emotional turmoil and/or exacerbated by it, therefore resulting in a vicious cycle. In 1951, for example, consultant psychiatrist with the Skin Department at St Bartholomew's Hospital, London, Dr. Eric Wittkower, enrolled sixty-four patients with acne in a psychosomatic study in order to find if there was a correlation between emotional disturbances and the onset of acne. Eric Wittkower, *British Journal of Dermatology* 63, no. 6 (June 1951): 214–33, https://doi.org/10.1111/j.1365-2133.1951.tb13715.

[16] Margaret Reilly, "Juvenile Acne," *American Journal of Nursing* 50, no. 5 (May 1951): 269.

activities in order to establish a trusting relationship. Establishing this relationship was vital for enabling the patient to discuss not only his/her skin problems, but also his/her concerns for the future and, in due course, accepting and following the physicians' treatment. Physicians were advised to see the patient on their own, away from their parents—who hindered their ability to understand the 'whole personality of the patient'.[17]

Shortly after the publication of this paper, the problem of acne amongst students gained the attention of members from the American School Health Association. In 1957, San Francisco-based physician Herbert Lawrence presented a paper entitled 'Acne, The Complexion Problem of Young Adults' at the Thirty-First Annual Meeting of the American School Health Association.[18] Held in the luxury Hotel Hollenden, Cleveland, Ohio, the meeting was borne out of the American Progressive Health Reform Movement's desire to improve the health of American children. Although Lawrence outlined the current scientific understandings regarding the cause of acne, he personally felt that the pursuit of finding one singular source of adolescent acne was fruitless. Given the numerous changes to their bodies, their behaviour patterns and the onset of emotional conflicts regarding 'dependency, independency and sexuality', Lawrence proposed looking at the whole adolescent acne patient, rather than any specific factor. This indicated that physicians were beginning to consider alternative theories relating to how to understand and treat adolescent acne sufferers. Lawrence reminded his audience that the teenage years were 'an exceedingly active time for these young people'; all his patients had hectic lifestyles. Aside from the demands that came with having a demanding school schedule, teenagers were also involved in extracurricular activities, and some had part-time jobs to pay for their newfound social life.

Moreover, Lawrence proposed a theory connecting emotional turmoil and acne. As overactivity of the oil glands was thought to contribute to patients' outbreaks, Lawrence referenced unnamed studies in which

[17] James Roswell Gallagher, Robert Masland, Felix Pierpont Heald, and William Robert Hill, "Some Comments on Acne Vulgaris in Adolescents," *The Journal of Pediatrics* 49, no. 6 (December 1956): 680.

[18] Herbert Lawrence, "Acne, The Complexion Problem of Young Adults," Thirty-First Annual Meeting of the American School Health Association (November 11–15, 1957), *Journal of School Health* 27, no. 6 (June 1957): 164–70.

adolescents were placed under enormous stress by psychiatrists and psychologists who determined the levels of oil secreted before and after the test. Findings from the tests showed that adolescent patients secreted 'an abnormal amount of oil under stress'. In one study, a group of teenage patients were recruited to carry a journal for three months, noting 'the number of acne lesions that they had each day and note episodes of emotional tranquillity or lack of it throughout this period'. Lawrence considered the physiological basis for this phenomenon:

> There is a theory that during stress the oil gland secretion is accelerated. During periods of quiescence the oil is stagnant in the follicle, hardens and forms a plug. When another period of stress comes along, the plug prevents the secretion from reaching the surface of the skin and produces an irritating impaction or foreign body in the follicle or its opening. This in turn sets up the whole inflammatory process which results in the clinical lesions of acne.[19]

Lawrence's concerns about the negative consequences of acne were echoed by the American National Centre for Health Statistics. In the United States, the National Centre for Health Statistics sponsored the Health Examination Survey between the years of 1966 and 1970 in order to 'determine the health status of the population'.[20] As the survey during this period explicitly focussed on the range of health conditions affecting adolescents between the ages of 12 and 17, a special report detailing the range of skin conditions prevalent within this group was produced from the resulting data. While the data were 'based on direct examination findings from the Health Examination Survey of 1966–1970 among a national probability sample representative of the 22.7 million youths' residing in America during this period, the data from sources such as patient questionnaires, medical histories and physical examination found acne to have a seriously detrimental impact on adolescents during a critical period in their development. Using the probability sample of youth in the Health Examination Survey of 1966–1970, it was found that only 27.7% of youths between the ages of 12 and 17 could be characterised as having normal skin and no signs

[19] Ibid., 168.

[20] Roberts and Ludford, "Data from the National Health Survey, Skin Conditions of Youths 12–17 Years," 1.

of acne or facial scarring. Moreover, it was claimed that 15.5 million youths suffered from facial acne—68% proportion of the population. As facial acne was identified as the 'most frequently occurring of the skin conditions' amongst 12- to 17-year olds, acne was said to be 'slightly more prevalent amongst girls (69.8 per 100) as opposed to teenage boys (66.4 per 100)'.[21] Nearly 85% of youths who suffered from acne admitted to their condition bothering them. Arguably telling of the medical professions' increasing belief of the role played by stress to the onset of acne, the report dedicated a segment to discussing the relation of stress and other health habits to the severity of the condition. Within the survey, the authors argued that there was a definite association between the 'degree of nervousness (youth's rating) and the prevalence of acne' amongst white youths. For the youths who attested to being 'never' or 'rarely' nervous (62.6 per 100) the rates of acne were 'statistically significant' when compared with those who identified with being 'often' or 'very' nervous (77.0 per 100). Moreover, acne was said to be 'slightly higher' amongst youths who were said to be 'seriously maladjusted in school'—the findings thus implying that the condition was more pronounced in adolescents found to be emotionally disturbed.[22]

While the increasing concern about acne paralleled the rise of adolescent medicine and the anxieties over the mental health of young Americans, the findings that the condition could be both caused and exacerbated by emotional turmoil requires one to investigate the reasons why the prospect of suffering from acne caused doctors to believe that acne caused teenagers such high levels of anxiety. During the post-war period, doctors, dermatologists, criminologists and sociologists ultimately served to construct acne as being a threat to not only one's social standing but also, equally, the social order of the United States.

The Social Repercussions of Acne

Medical concerns about the psychological scars of acne were magnified by the media. Stanley Cohen's seminal publication *Folk Devils and Moral Panics* (1972) helped to establish the media's role in creating moral

[21] Ibid., 2.

[22] Ibid., 13. For more on the psychosomatic aspects of acne in the post-war period, see Eric Wittkower, "Acne Vulgaris: A Psychosomatic Study," *British Journal of Dermatology* 63, no. 6 (June 1951): 214–23, https://doi.org/10.1111/j.1365-2133.1951.tb13715.x.

panics. According to Cohen, periodically 'a condition, episode, person or a group of persons emerges to become defined as a threat to societal values and interests; its nature being presented in a stylised and stereotypical fashion by the mass media'.[23] Considering the mass media's influence in spreading fear and panic amongst the public with regards to the outbreak of the AIDS virus sociologist Kenneth Thompson has argued that 'an important consideration is the way in which a succession of illnesses are given a moralistic meaning that stigmatizes the victim as a pariah or social deviant. This moralizing process is increasingly accomplished through representations in the mass media'.[24] Although on a much smaller scale to the moral panics created about AIDS, acne, too, was constructed as a real threat to the social order. In 1958, for example, during one of his syndicated 'Worry Clinic' columns, psychologist and physician George W. Crane warned how high-school student acne sufferers:

> may strike back at society in a vengeful manner, figuring they got a raw deal. In the latter case, many juvenile delinquents are violating laws and causing trouble for our faithful policemen, just because those kids have pimply complexions. For a lot of crime is based on an attempt by scarred patients to compensate psychologically for their imagined ostracism by society.[25]

So, why were teens seen as a threat to the American moral fabric? According to journalist Ann Anderson, 'newspapers exaggerated the threat of juvenile delinquency [teenage crime rates in the 1950s were actually fairly low] and cops treated first time offenders like hardened felons because they were everything adults feared about the new teenage culture'.[26] The link between acne and anti-social behaviour mirrored earlier infamous connections between physiognomy and criminality, not least the

[23] Stanley Cohen, *Folk Devils and Moral Panics* (London: Routledge, 1972), 9. For more on how society has historically feared and reacted to those who with visible signs of illness and disability, see: Sander Gilman, *Disease and Representation: Images of Illness from Madness to AIDS* (New York, Cornell University Press, 1988).

[24] Kenneth Thompson, *Moral Panics* (London: Routledge, 1998), 70.

[25] George W. Crane, "The Worry Clinic: Help Is Sought By Girl with Acne," *Lakeland Ledger* (March 26, 1958): 3.

[26] Ann Anderson, *High School Prom: Marketing, Morals and the American Teen* (London: McFarland & Co, 2012), 38.

work of Italian physician Cesare Lombroso.[27] Lombroso theorised that criminals were recognisable by certain physical traits and defects which distinguished them from normal, law abiding citizens. Influenced by Charles Darwin's theory of evolution, Lombroso believed that criminals 'exhibited numerous anomalies in the face, skeleton, and various psychic and sensitive functions, that they strongly resembled primitive races'.[28]

Sociological and criminological studies backed up the media's interest in the physical characteristics of the archetypal juvenile criminal. In one study investigating physical disfigurement and juvenile delinquency, criminal psychopathologist Ralph S. Banay claimed the present type of juvenile criminal was a 'shy youngster with a slight physical defect: a nose that's too big, eyes of two different colours, crossed eyes, acne, a disfiguring birthmark, or a club foot'. Such physical deformities had the potential to lead to criminal acts such as burglary, fraud or even murder. Specifically, in 1943, Banay highlighted the murder of a well-known executive. The murderer was a 15-year-old boy severely disfigured by acne. As a result of his disfigurement, he refused to see anyone preferring to sleep during the day and walk the streets at night, his deformities hidden under the cover of darkness. Friendless and lacking employment, he supported himself financially by engaging in a series of armed robberies one of which turned deadly. Upon threatening his victim with a gun, the boy was surprised to come up against stern resistance. In a state of panic, the boy shot the victim dead. He was soon caught and executed for his crime. In another case, Banay discussed 'an eighteen-year-old boy with a pock-marked face'—who descended into a life of crime. When the boy was 15, he suffered from an attack of chicken pox, resulting in permanent scarring. Mistaking the outbreak for a flare up of acne that would eventually clear up, he moved to New York to enrol in the Coast Guard only to be turned down and told by the head of city employment services that 'no employer would hire a man whose face would only repulse customers and co-workers'—a revelation which lead to him committing armed robberies on several grocery stores.[29]

[27] Gina Lombroso and Cesare Lombroso, *Criminal Man: According to the Classification of Cesare Lombroso* (New York: Putnum, 1911), 3.

[28] Imogene Moyer, *Criminological Theories: Traditional and Non-traditional Voices and Themes* (London: Sage, 2001), 32.

[29] Ralph S. Banay, "Physical Disfigurement as a Factor in Delinquency and Crime," *Federal Probation Journal* 7, no. 1 (June 1943): 21.

The efforts of sociologist Frances Cooke Macgregor also highlighted the social and psychological ramifications of facial deformities after the World War II. In recent years, Macgregor has been credited 'as the first scholar to document the major social and psychological stresses of patients who suffer facial disfigurement through birth, accident, disease or war'.[30] In 1951 Macgregor published a paper describing some of the psychosocial problems experienced by people with facial deformities. Macgregor claimed that people with diseased or scarred faces often faced the stereotype that they had led an immoral life. Frequently ridiculed and avoided, they risked becoming social outcasts. 'Physical handicaps', such as acne, a twisted nose or facial scarring essentially acted as barriers to the privileges and opportunities enjoyed by the unscarred.[31]

The problem of acne continued to be a source of anxiety for health professionals in the 1960s. Dr. Lilis F. Altschuler of the University of Cincinnati College of Medicine echoed many of George W. Crane's earlier findings when he claimed that antisocial behaviour could indeed be traced to acne. In Altschuler's experience working with offenders at the Cincinnati Juvenile Court, it was found that acne contributed to truancy, antisocial behaviour and sexual delinquency. Altschuler explained how dealing with juvenile offenders who suffered from physical defects, including acne, required 'a team approach involving other agencies of the court'. Discussing the case of a 15-year-old boy referred to the court for shoplifting and truancy, the team concluded that his failure to attend school regularly was likely due to his severe acne. In another case, the inappropriate sexual behaviour of a 15-year-old girl was blamed on her anxiety and feelings of inferiority regarding her poor skin condition. After successful treatment, both adolescents' poor behaviour markedly improved. Altschuler happily reported that the young man attended school more regularly and the girl graduated, later holding down a responsible job. In describing the girl's delinquent behaviour, it is noteworthy that Altschuler proposed a causal link between her promiscuous behaviour and the onset of her acne.[32] During this period, many teenage

[30] Myrna Oliver, "Frances Macgregor, 95; Social Scientist," *Los Angeles Times*, February 8, 2002, http://articles.latimes.com/2002/feb/08/local/me-frances8.

[31] Frances Cooke Macgregor, "Some Psycho-social Problems Associated with Facial Deformities," *American Sociological Review* 16, no. 5 (October 1951): 629–38.

[32] Lilis F. Altschuler, "Antisocial Behaviour Traced To Acne," *Bastrop Advertiser and Bastrop County News* (October 24, 1968): 12.

boys and girls were said to have 'rejected traditional standards of sexual morality that forbade sex outside of marriage, and embraced the "sexual revolution"—the popular movement that equated sexual freedom with personal liberation'.[33] Despite there being a notable shift in youth attitudes towards sex in the late 1960s, Altschuler's fears about acne promiscuity echoed post-war anxieties about youth culture and sex.[34]

The opening of several American acne clinics also signified that the medical establishment took the condition seriously. Although the majority of acne clinics set up offered treatment to white, American adolescents, there were exceptions. In the 1950s, cosmetic surgeon Harold E. Pierce set up the 'West Park Clinic in West Philadelphia, a dermatological practice that focused on African Americans'.[35] Pierce spoke of the dermatologist's practice as being a 'luxury', with the majority of the 3500 dermatologists in the United States located in highly developed and largely white urbanised areas. Pierce lamented the ease with which white teenagers, suffering from acne or other dermatological complaints, could locate a dermatologist and be seen straight away, compared to the plight of African-American youth:

> The white teen-ager, armed with his parents' check book, by scouting around, can generally locate a dermatologist who will arrange an appointment for this patient right after school. Within a short time, his or her teen-age acne is controlled to the point of social acceptance and everyone is happy.[36]

Acknowledging the socio-economic disparities between the two groups, Pierce argued that there was a 'dermatological gap which penalised black youth'. Setting up a bi-weekly Teenage Acne Clinic at the West Park Clinic, Pierce and his staff focussed on helping black youth combat their complexion problems. By doing so, they hoped the scheme would thus help reduce

[33] Carolyn Bronstein, *Battling Pornography: The American Feminist Anti-pornography Movement, 1976–1986* (Cambridge: Cambridge University Press, 2011), 25.

[34] Patrick Jamieson and Daniel Romer, *The Changing Portrayal of Adolescents in the Media Since 1950* (Oxford: Oxford University Press, 2008), 43.

[35] Gayle Sims Ronan, "Harold E. Pierce Jr., 84, Dermatologist, Surgeon," Philly.com (November 4, 2006), http://articles.philly.com/2006-11-04/news/25406168_1_dermatology-medical-degree-surgeon, accessed 10 September 2016.

[36] Harold E. Pierce, "Dermatologic Involvement with Black Youth," *Journal of the National Medical Association* 63, no. 1 (January 1971): 58.

their hostility to the largely white medical profession by showing the youngsters that someone from outside their family circle cared about them and their dermatological problems. Pierce claimed that the Acne Clinic was determined to 'reinforce the idea that indeed, "Black is Beautiful"'.[37] Black youths attending the clinic were assigned individual appointments, where they were examined and treated according to their personal requirements. Not only were they given detailed educational material to help them understand the 'intricacies of teenage acne', but they also received the chance to compare notes with other acne sufferers and discuss their progress in a relaxed environment. Pierce ensured that the West Park Clinic offered their services (including both consultations, and treatments and medications) free of charge to their 1500 black patients. The dermatologist argued that if more resources were assigned to treating black teenagers' dermatological complaints, then a 'morale-uplifting capability value would be the result'. If dermatologists were equally willing to treat acne in black teens, it would help to reduce black drop-out rates, juvenile delinquency and hostility. Pierce believed that showing black teenagers that the medical profession cared could even contribute to reducing the number of black gang deaths in Philadelphia. Such claims underlined how well established the link between acne and both individual and societal turmoil was by the 1960s. As the final section of the chapter demonstrates, the pharmaceutical industry was quick to take advantage of these concerns.

Treating the Tormented

A plethora of treatments were available by the 1950s which offered the hope of both clear skin and psychic succour to the acne sufferer. While advertisements for anti-acne creams like Clearasil hinted at the moral connotations of having an acne-free complexion, physicians also offered tranquilisers, anti-depressants and, in some instances, hypnotherapy to treat depressed acne sufferers. Dermatologists went as far as to offer surgical procedures such as dermabrasion therapy and dangerous chemical peels to minimise the facial scarring often blamed for causing such mental anguish amongst the adolescent population.

In the decades following the World War II, the pharmaceutical industry invested heavily in drug development for a host of conditions. These drugs included anti-inflammatories such as corticosteroids,

[37] Ibid., 59.

cardiovascular drugs, psychoactive drugs, chemotherapy for cancer and new antibiotics.[38] In dermatology, numerous drug therapies such as antibiotics, topical corticosteroids and the highly toxic methotrexate (usually used to treat psoriasis) were used to treat acne.[39] Introduced by American inventor Ivan Combe in 1951, the acne cream Clearasil frequently represented the condition as a threat to teens' popularity and their chances of finding a romantic partner. In their 'Clearasil Personality of the Month' advertising campaign, for instance, the advertisements featured both male and female teenage acne sufferers who had adopted Clearasil as their treatment of choice and were only too happy to tell the world about its miraculous benefits for their physical and emotional health as well as their social lives. For instance, the 1957 November edition of *Boy's Life* featured 'popular' John O'Ryan who explained how Clearasil had taken care of his 'complexion problems':

> For years I had trouble with pimples. I tried many other medications but nothing really worked until I hit on Clearasil. In just a short while with Clearasil my face started clearing. Now I'm no longer embarrassed by complexion problems.[40]

For dermatologists, psychological factors could also play a role in the onset and subsequent exacerbations of skin. During a discussion concerning the relationship between 'psychiatry and the skin' in 1950, for example, dermatologist Robert W. Mackenna described the 'two diametrically opposed beliefs concerning the relationship of the mind and the body in the etiology of skin diseases'. As the following extract demonstrates, the rhetoric employed by Mackenna also reinforced the gendered norms and ideals of the era where acne was portrayed as both having the potential to ruin girls' self-confidence and as a threat to a girl's femininity:

> Whilst the unsightliness of acne vulgaris – or of the scars left by the lesions – may greatly interfere with a girl's self-confidence and gravely affect her

[38] George C. Andrews, Anthony C. Domonkos, and Charles F. Post, "Treatment of Acne Vulgaris," *Journal of the American Medical Association* 146, no. 12 (July 1951): 1107–13, https://doi.org/10.1001/jama.1951.03670120017005.

[39] Gordon Mitchell-Heggs, "Drugs in the Treatment of Acne Vulgaris," *British Medical Journal* 2, no. 5162 (December 1959): 1320–22.

[40] "Clearasil Personality of the Month" advert, *Boys' Life* (November 15, 1957): 77.

> attitude to the social problems of her life so that she may become a recluse, or – thinking that acne is a visible sign of masculinity – may become as aggressive and as masculine as she can make herself, prolonging a state of unstable psychological equilibrium which may eventually lead to a breakdown.[41]

Excoriated acne, whereby sufferers picked compulsively at their blemishes, exacerbating scarring, had been researched by dermatologists William Allen Pusey and Francis E. Senear during the early twentieth century, but little attention had been paid to the issue since 1920.[42] In 1954, Canadian physician Norman M. Wrong used the *Archives of Dermatology and Syphilology* to express his displeasure concerning the lack of attention paid to the problem of excoriated acne in young women during the post-war period.[43] Despite the availability of information about excoriated acne in British and American dermatology textbooks, Wrong argued 'that excoriated acne of females is more common than is usually supposed, that its lack of recognition often results in inadequate treatment, and that such inadequate treatment causes needless mental upset to the patient and persistence of the eruption for years'.[44] Wrong found that the problem was not reserved to one specific age group but was rather similar between females aged between 16 (16 being the youngest recorded case) and 40 (being the oldest) years of age. Therefore, Wrong urged that his colleagues refrain from thinking of excoriated acne as being solely a problem of young girls and consider it more as an issue that affected women in general. Adding his own contribution to previous observers' thoughts on the defining characteristics of females who suffered from excoriated acne, Wrong divided patients into the following three groups: (a) slightly masculine type, (b) vain type of girl who thinks of nothing but her appearance and spends hours each day in front of her mirror, and (c) good-looking type of girl who does not

[41] Robert MacKenna, "Discussion: Psychiatry and the Skin," *Proceedings of the Royal Society of Medicine* 43, no. 797 (April 1950): 797–803.

[42] William Allen Pusey and Francis E. Senear, "Neurotic Excoriations with Report of Cases," *Archives of Dermatology and Syphilology* 1, no. 3 (March 1920): 270–78, https://doi.org/10.1001/archderm.1920.02350030038003.

[43] Norman M. Wrong, "Excoriated Acne in Young Females," *Archives of Dermatology and Syphilology* 70, no. 5 (November 1954): 576–82, https://doi.org/10.1001/archderm.1954.01540230026003.

[44] Ibid., 576.

have as much attention from the opposite sex as she feels is her due and who blames the real or imaginary blemishes on her face for this lack of attention. During his consultations with sufferers, Wrong claimed he saw many patients with brownish stains and superficial scars 'which suggested to him that the patient was picking the lesions on her face'. If confronted by the physician, Wrong suggested that, often, they would freely admit to doing so and communicate the reason behind their destructive actions. While the reasons varied, the most frequent reasons cited tended to be anxiety relating to school exams, exhaustion, difficulties at home or in the workplace and ongoing problems with their partners.

Although the root causes of excoriated acne were often psychological, physicians often turned to pharmacological solutions to control it.[45] San Antonio physician Dr. James Lewis Pipkin claimed that treating 'pickers' with the sedative phenobarbital often helped break the vicious cycle of picking and scratching their faces.[46] In other skin conditions, where there was an 'uncontrollable urge to scratch or in whom a tension factor contributed to the cutaneous disorder', dermatologists embraced the new tranquilliser drugs which had been developed in the aftermath of the war. Drugs such as Ethchlorvynol (marketed as Placidyl), Meprobamate (Miltown) and Perphenazine (Trilafon) were used to treat the emotional disturbances linked with skin disorders like atopic dermatitis, contact dermatitis and lichen planus (amongst many others).[47] While some of these treatments

[45] Ibid., 576–82.

[46] James Lewis Pipkin, "Treatment of Acne Vulgaris," *Medical Clinics of North America* 49, no. 4 (July 1965): 1–18.

[47] In the majority of studies, the authors claimed that both dermatologists and psychiatrists prescribed tranquilliser drugs: 'because certain dermatological syndromes have so frequently appeared closely bound up with emotional factors, the use of sedatives as an adjunct therapy has become widespread in these conditions'. Oscar Sokoloff, "Meprobamate (Miltown) as Adjunct in Treatment of Anogenital Pruritus," *American Medical Association Archives of Dermatology* 74, no. 4 (October 1956): 393, https://doi.org/10.1001/archderm.1956.01550100061012. For other examples of tranquillisers being used to treat skin disorders, see: Charles R. Rein and Raul Fleischmajer, "The Tranquilizing Efficacy of Ethchlorvynol (Placidyl) in Dermatological Therapy," *American Medical Association Archives of Dermatology* 75, no. 3 (March 1957): 438, https://doi.org/10.1001/archderm.1957.01550150126019; Jay Shanon, "A Dermatologic and Psychiatric Study of Perphenazine (Trilafon) in Dermatology," *American Medical Association Archives of Dermatology* 77, no. 1 (January 1958): 119, https://doi.org/10.1001/archderm.1958.01560010121024; James G. MacLean, "Treatment of Acne with Prothipendyl," *Canadian Medical Association Journal* 84, no. 8 (February 1961): 427–30.

calmed patients, side effects of the sedatives included 'dopiness', 'dullness of perception' and palpations (amongst others).[48]

Other physicians sought drug-free alternatives. In medicine, hypnosis has long been used to alleviate dermatological problems.[49] In 1958, for instance, Johns Hopkins University dermatologist Mark B. Hollander presented a paper describing the use of post-hypnotic suggestion to control the excoriated acne. The paper, presented at the First Annual Meeting of The American Society of Clinical Hypnosis, described acne as being a 'profoundly traumatic experience to its victims, especially in adolescence when the developing individual first becomes aware of the opposite sex'.[50] Hollander explained that some patients 'retaliated by attacking the acne directly, trying to press out and thus get rid of the offending blackheads and pimples'. With their actions often resulting in a worsening of their skin, Hollander noted that well-meaning parents would constantly badger their offspring to refrain from picking their faces. Along with having to deal with overbearing parents, some patients would also be targeted by bullies. Hollander explained that pressure from parents and worrying about bullies only served to increase patient anxieties. Patients would become incapacitated by feelings of guilt and, what initially began as an effort to rid their face of pimples quickly became a device for punishing oneself compulsively. Hollander acknowledged that coping with such patients was challenging and noted that, 'at this point, he has his hands full'. Treating the initial outbreak of acne was impractical as the patients had to firstly be persuaded to stop picking their skin—something which they were often reluctant or incapable of doing. When the initial outbreak of acne was successfully treated, pitted scars and blood crusts, from picking, marred the complexion of patients. Hollander explained how, after 5 weeks of intensive treatment, the pimples of a 19-year-old college student had disappeared. During a follow-up appointment, however, he noted blood-crusted excoriations on her face caused by picking. He then employed post-hypnotic suggestion:

[48] Sokoloff, "Meprobamate," 393.

[49] Philip D. Shenefelt, "Hypnosis in Dermatology," *American Medical Association Archives of Dermatology* 136, no. 3 (March 2000): 393–99.

[50] Mark B. Hollander, "Excoriated Acne Controlled by Post-hypnotic Suggestion," *American Journal of Clinical Hypnosis* 1, no. 3 (July 1959): 122.

> She went into a somnambulistic trance readily, and was told that when she wanted to pick her face she was to remember the word 'scar'. This word was to symbolise the effects of picking on her face and her appearance. Since she did not want to spoil her appearance, she would be able to refrain from picking merely by saying 'scar'. One week later there has been no picking, and the face was smooth. The suggestion was reinforced on three occasions in late March and late April. In mid-May, there has been occasional picking, but no excoriations or crusts could be seen and the patients felt that she was under good control. This remained true in September.[51]

While hypnosis worked for some people, acne sufferers who had been left scarred by the condition also sought surgical procedures to reduce both their dermatological damage and their emotional suffering. Included amongst the possible solutions was cosmetic surgery. Although being left scarred by acne posed little threat to patients' physical health, it was the detrimental impact the disfigurement would have on their emotional well-being that helped dermatologists to justify such procedures. Scholars have claimed that 'cosmetic surgery acted as a kind of psychotherapy that made an intervention into the body for the purposes of dealing with psychic trauma or distress'.[52] In the early twentieth century, German dermatologist Ernst Kromayer introduced an abrasion technique to reduce the scars left behind by a host of skin diseases and defects. Using dental burrs fixed to a motor-driven powered dental drill, Kromayer's new innovation proved valuable in treating and removing skin imperfections such as freckles, pitted scars and keloids.[53] Taking inspiration from Kroymayer's work, subsequent dermatologists introduced their own abrasion methods for treating acne scars and other skin deficiencies in the late 1940s and early 1950s. In 1947, American plastic surgeon Preston C. Iverson presented a paper to the Philadelphia Academy of Surgery detailing the use of sandpaper in minimising the scars often left behind by both acne and traumatic tattoos. Marked by 'its seemingly brutal treatment of skin

[51] Ibid.

[52] Sheila L. Cavanagh, Angela Failler, and Rachel Alpha Johnston Hurst, *Skin, Culture and Psychoanalysis* (London: Palgrave Macmillan, 2013), 129.

[53] Frederick Reiss, "Kromayer Method of Corrective Surgical Planning of Skin," *Archives of Dermatology and Syphilology* 69, no. 6 (June 1954): 744–46, https://doi.org/10.1001/archderm.1954.01540180094016.

tissues', Iverson nevertheless believed his method was worthwhile. Not only would using sandpaper reduce the severity of facial scars left behind by acne and traumatic tattoos, but it was believed the technique would help reduce the embarrassment felt by sufferers.[54]

Some dermatologists, however, expressed concern that those inexperienced with the technique might go too far and produce what amounted to a third-degree burn and irreversible facial scars.[55] In order to unearth safer and more enhanced surgical means for reducing acne scars, New York-based dermatologist Abner Kurtin designed his own technique which became known as dermabrasion therapy.[56] Not only did Kurtin's procedure revolutionise dermatological surgery, but it also lead to skin specialists being able to perform skin-corrective surgeries in an office-based setting.[57] Some skin specialists believed it was necessary to evaluate acne sufferers' emotional state before offering them dermabrasion therapy. Adolph Brown, a Beverly Hills-based dermatologist, for instance, reminded his colleagues to consider their patients' motivations. In Brown's view, acne sufferers could be separated into three classes of people: 'Well-adjusted persons, persons with inadequate personalities, and psychotic or pre-psychotic persons'. Brown felt the reasoning of the well-adjusted for dermabrasion was straightforward; they wanted it for 'purely cosmetic purposes' and hoped it would provide them with the social and economic advantages that were associated with having a clear complexion. It was believed such 'well-adjusted' patients were ideal candidates for the procedure as they had a 'clear insight into their problems and were obviously robust and emotionally healthy'. For the people considered to have 'inadequate personalities', Brown claimed that these patients retreated 'behind their facial handicap and blamed

[54]Preston C. Iverson, "Surgical Removal of Traumatic Tattoos of the Face," *Plastic and Reconstructive Surgery* 2, no. 5 (September 1947): 427–32.

[55]William G. McEvit, "Treatment of Acne Pits by Abrasion with Sandpaper," *Journal of the American Medical Association* 142, no. 9 (March 1950): 647–48, https://doi.org/10.1001/jama.1950.72910270001008.

[56]Abner Kurtin, "Corrective Surgical Planning of Skin: New Technique for Treatment of Acne Scars and Other Skin Defects," *Archives of Dermatology and Syphilology* 68, no. 4 (April 1953): 389–97, https://doi.org/10.1001/archderm.1953.01540100029005.

[57]Noel Robbins, "Dr. Abner Kurtin, Father of Ambulatory Dermabrasion," *The Journal of Dermatologic Surgery and Oncology* 14, no. 4 (April 1988): 351–458, https://doi.org/10.1111/j.1524-4725.1988.tb03376.x.

all their inadequacies and dissatisfactions on it'. If the treating physician expressed concern for some of these patients and they improved aesthetically after treatment, however, Brown believed that their emotional well-being would improve as a result. Brown argued that the pre-psychotic or psychotic sufferers used their 'acne scars as rationalisation for all their personality, social and economic difficulties, giving the scars an importance completely out of proportion to the disfigurement'. Although Brown doubted such patients could ever be cured of their psychological problems (due to these type of people frequently finding another ailment to blame their perceived inadequacies on), he did concede that, if 'great care' was used when treating a selection of these patients then emotional improvement was not impossible.[58]

American dermatologists offered alternative procedures for minimising the facial scars left by acne. Procedures such as cryotherapy and phenol-based chemical peels were thought to be cost-effective, to reduce scarring and to improve mental well-being. However, as with many of the other surgical procedures offered to acne sufferers, those who administered the treatments were often untrained 'laymen' ignorant of the risks such solutions posed to patients' health.[59] The 1973 case of 21-year-old Canadian nurse Antoinette Cere was particularly harrowing. Cere had visited the Yolandre Peau de Soie Skin Clinic in Montreal looking for help in overcoming her stubborn case of acne. Paying the clinic $800, she was treated with a chemical peeling solution which contained resorcinol, lactic acid and salicylic acid. Once the chemical peel had been applied, Cere's face was covered with adhesive tape for 48 hours. Shortly after the treatment, Cere complained of feeling unwell, collapsed and died as a result of breathing failure. She was found to have suffered second-degree burns to her face and neck. During the coroner's inquest, it was found that the skin clinic did not have a license to carry out chemical peels and was only permitted to sell cosmetic

[58]Adolph Brown, "Dermabrasive Ablation of Acne Scars," *California Medical Journal* 89, no. 2 (August 1958): 123–26.

[59]While it is beyond the scope of this paper to detail specific examples where acne sufferers have been seriously injured pursuing said mentioned treatments, for specific example case studies, see: Adolph Brown, Leo M. Kaplan, and Marthe E. Brown, "Phenol-Induced Histological Skin Changes: Hazards, Technique, and Uses," *British Journal of Plastic Surgery* 13, no. 3 (May 1960): 158–69, https://doi.org/10.1016/S0007-1226(60)80032-X; and Frank Mackey, "Death Linked to Skin Treatment," *The Montreal Gazette* (June 6, 1974): 8.

products.[60] As the permit to sell beauty products was only temporary, the clinic's co-owners, Yolande and Andre Marois, were accused of running 'an illegal operation'. Moreover, in his testimony, Andre Marois admitted that 12 of the 15 diploma certificates that hung on the clinic walls were fake; Marois admitted to having had them made due to his wife feeling 'ill at ease with having only three diplomas while others had many more'. In the aftermath of Cere's death, the pathologist who carried out the autopsy, Dr. Wesner Thesee, was quoted as saying:

> I am 100 per cent certain that if Miss Cere had not taken this treatment she would be alive today. The drugs were probably a very important factor in causing respiratory difficulties. I'm not talking about intoxication. I'm talking about complications as a result of the drugs. There was a high content of morphine in her system, it wasn't at the poison level, but morphine is a depressant and in large doses affects the breathing of a person.[61]

Despite the risks of many of the drug therapies and surgical procedures offered to acne sufferers in the post-war period, however, many adolescent acne sufferers, their parents and their physicians clearly felt that the potential for eradicating both pimples and the scars they often left behind was ultimately worth the risk.

Conclusion

In the post-war period, acne was constructed as a threat to both the emotional well-being of teenage Americans and, ultimately, American social order. Physicians, journalists, sociologists and criminologists all warned of the significant impact acne could have on the psyche of the baby-boom generation. Paralleling the development of adolescent medicine and the worries about the mental health of Americans, acne was portrayed as an ailment which had to be overcome at all costs. Furthermore, in a broader sense, the concerns about acne were also linked to wider cultural anxieties about youth mental health, juvenile delinquency, sexual promiscuity and racial unrest. Are such apprehensions still as prevalent in modern-day culture? The simple answer is yes. Anti-acne drug manufacturers have been recently found

[60] Mackey, "Death Linked to Skin Treatment."

[61] Steve Kowich, "Acne Clinic Had Cosmetic Permit Only," *The Montreal Gazette* (September 13, 1973): 1.

guilty of claiming that teenage consumers who fail to use their product will become victims of bullying. In September 2017, the advertising watchdog banned the makers of Proactiv+ from showing their anti-acne advertisements during children's TV shows commercial slots. The adverts featured Hollyoaks actress Jorgie Porter tearfully describing the bullying she received at school as a result of her acne, and explaining her 'happiness' after discovering Proactiv+. The advertising watchdog, however, concluded that the adverts essentially implied that 'teenagers who have bad skin but don't use Proactiv+ are more likely to be bullied'.[62] In recent years, dermatologists, in particular, have warned of the threat visible skin conditions like acne pose to the mental well-being of adolescent children with many claiming that 'it is important to identify and treat such teenagers early to reduce the future socio-economic burden of their acne'.[63] While acknowledging that being teased as a result of suffering from acne often leads to 'adverse psychological sequelae including stigmatization', some dermatologists have gone further and argued that the condition is linked with increased suicidal ideation in adolescents.[64] Despite being linked with causing depression in adolescent patients, some have claimed that the powerful acne drug, Isotretinoin, (Accutane) actually reduces the severity of mental health problems in this cohort on account of its unrivalled ability to treat even the most stubborn forms of acne.[65] Although the debate over whether or not suffering from acne does lead to an increased chance of developing a serious mental illness continues, groups such as physicians, dermatologists, mental

[62] Anon, "Anti-Acne Advert Featuring Actress Jorgie Porter Banned from Children's TV," *BBC Newsbeat* (September 27, 2017), http://www.bbc.co.uk/newsbeat/article/41410677/anti-acne-advert-featuring-actress-jorgie-porter-banned-from-childrens-tv.

[63] Nigel Walker and Lewis Jones, "Quality of Life and Acne in Scottish Adolescent Schoolchildren: Use of the Children's Dermatology Life Quality Index© (CDLQI) and the Cardiff Acne Disability Index© (CADI)," *Journal of the European Academy of Dermatology and Venereology* 20, no. 1 (January 2006): 45–50.

[64] Parker Magin, Jon Adams, Gaynor Heading, Dimity Pond, and Wayne Smith, "Experiences of Appearance-Related Teasing and Bullying in Skin Diseases and Their Psychological Sequelae: Results of a Qualitative Study," *Scandinavian Journal of Caring Sciences* 22, no. 3 (September 2008): 430–36, https://doi.org/10.1111/j.1471-6712.2007.00547.

[65] Gary L. Peck, David R. Rubinow, Kathleen M. Squillace, and Gail G. Gantt, "Reduced Anxiety and Depression in Cystic Acne Patients after Successful Treatment with Oral Isotretinoin," *Journal of the American Medical Association* 17, no. 1 (July 1987): 26–31, https://doi.org/10.1016/S0190-9622(87)70166-2.

health professionals, teachers and parents must continue to ensure adolescent patients receive the appropriate treatment. Whether or not such treatment should include dangerous drugs such as Isotretinoin, however, is very much open to debate. Finally, while the presence of acne is believed to have a negative effect on adolescents' 'quality of life, self-esteem and mood', it is ultimately not possible to prevent mental illness by solely eradicating the bothersome skin condition. For example, in recent years, studies have shown that, as well as the problem of acne, sufferers may have ongoing problems within their family and social lives which can also negatively affect their mental well-being.[66] With acne normally affecting sufferers during their adolescent years, the condition is but one of a whole host of changes the body undergoes during puberty. In actual fact, it has been shown that, due to a range of factors, adolescents are at a high risk of suffering from depression.[67] Therefore, while preventing acne may help alleviate some sufferers' accompanying depression, the problem of mental illness remains a much more multifaceted problem.

[66] Lauren K. Dunn, Jenna L. O'Neill, and Steven R. Feldman, "Acne in Adolescents: Quality of Life, Self-Esteem, Mood and Psychological Disorders," *Dermatology Online Journal* 17 no. 1 (August, 2011): 1, https://escholarship.org/uc/item/4hp8n68p.

[67] Karen D. Rudolph and Martin M. Flynn, "Depression in Adolescents," in *Handbook of Depression*, ed. Ian H. Gotlib and Constance L. Hammen (New York: Guilford Press, 2014), 391–409.

Acknowledgements This research was generously supported by a Wellcome Trust Research Studentship entitled: A Face to Die For: Acne, Accutane and the Quest for Perfect Skin. 1950s–present (Grant Number 10858/Z/15/Z).