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MORALITY BEFORE KNOWLEDGE

The contemporary issues related to conventional treatment of acne and the way forward

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ABSTRACT

Background: People perceive acne as a minority disorder (not a major health concern), but it has a significant impact and burden on the victims. Although conventional drugs are available for its treatment, which are applied directly to the affected skin, such as azelaic acid, benzoyl peroxide, and salicylic acid etc. or formulationAcne vulgaris is a common skin condition that can have a significant impact on individuals, yet conventional treatments often come with various contemporary issues. This paper discusses the contemporary issues related to the conventional treatment of acne and explores a way forward. Acne vulgaris is a chronic inflammatory disorder of the pilosebaceous unit, with a high prevalence globally and in Nigeria. Although conventional drugs are available for treatment, there are several contemporary issues related to their usage that need to be addressed. **Method:** Relevant literature, including stakeholder reports and studies conducted globally and locally, were searched and reviewed to identify the contemporary issues related to conventional acne treatment. The key contemporary issues identified include economic, environmental, emotional, social, and spiritual concerns. **Findings:** The economic burden of costly conventional medications makes them inaccessible for many. Environmental issues arise from the use of potentially harmful chemicals that can pollute water sources and contribute to climate change. Acne can also lead to emotional distress, social stigma, and spiritual conflicts, especially due to the side effects of conventional treatments. Given the limitations of conventional treatments, the article recommends the use of scientifically-proven herbal remedies as a promising alternative strategy. Herbs such as tea tree oil, green tea, chasteberry, black seed, and spikeweed have demonstrated antibacterial, anti-inflammatory, and anti-androgenic properties that can effectively manage acne without the adverse effects of conventional drugs. **Conclusion:** The use of evidence-based herbal medicines offers a way forward in the treatment of acne, addressing the contemporary issues associated with conventional approaches. Further clinical research and regulatory approval are necessary to integrate these herbal remedies into conventional acne management and ensure their widespread and safe use. **Novelty/Originality of this article:** This study proposes an integrated acne treatment framework that combines conventional therapies with evidence-based herbal medicine. This approach addresses contemporary issues in acne treatment by considering economic, environmental, and socio-cultural aspects.

KEYWORDS: acne; contemporary; conventional; treatment.

1. Introduction

Acne vulgaris is a widespread dermatological condition that affects a significant portion of the global population, with particular prevalence during adolescence. This skin disorder is characterized by the development of inflammatory lesions, including comedones, papules, and pustules on the skin's surface (Amita et al., 2023). The etiology of acne vulgaris is multifaceted, involving a complex interplay of factors such as hormonal imbalances,

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increased sebum production, and the presence of Cute Bacterium acnes, a commensal skin bacteria (Amita et al., 2023; Anaba & Oaku, 2021).

The pathophysiology of acne involves several key processes. Firstly, there is an increase in sebum production, stimulated by androgens during puberty. This excess sebum can clog hair follicles, creating an environment conducive to bacterial growth. Secondly, the proliferation of Cutibacterium acnes within these clogged follicles leads to inflammation and the formation of acne lesions. Lastly, hyperkeratinization of the follicular epithelium contributes to the formation of comedones, which can further exacerbate the condition (Amita et al., 2023). Epidemiological data from the Global Burden of Disease Study positions acne vulgaris as the eighth most prevalent skin disease worldwide, with an estimated global prevalence of 9.38% across all age cohorts (Vasam et al., 2023). However, this prevalence exhibits significant variability among different countries and age groups. Estimates suggest that between 35% to nearly 100% of adolescents experience acne at some point during their development (Vasam et al., 2023). This wide range reflects the complex interplay of genetic, environmental, and lifestyle factors that influence acne development.

In Nigeria, for instance, adolescents demonstrate a particularly high prevalence of acne vulgaris. This prevalence shows an age-dependent increase, correlating with the elevated androgen and sebum production characteristic of late adolescence (Vasam et al., 2023). This trend is not unique to Nigeria and is observed in many countries worldwide, highlighting the universal nature of acne as a common adolescent experience. Despite its frequent mischaracterization as a minor or purely cosmetic disorder, acne vulgaris imposes a substantial burden on affected individuals. The condition's psychological and social ramifications can be profound and long-lasting. Many individuals with acne experience diminished self-esteem, social anxiety, and depression. The visible nature of acne lesions can lead to social stigmatization and discrimination, particularly in societies that place a high value on physical appearance (Layton et al., 2019).

The psychological impact of acne extends beyond adolescence and can persist into adulthood. Studies have shown that adults with acne report higher levels of anxiety, depression, and social isolation compared to their peers without acne. This psychological distress can interfere with various aspects of life, including academic performance, career advancement, and personal relationships (Layton et al., 2019). Furthermore, the economic impact associated with acne treatment, encompassing both direct and indirect costs, can be considerable. Direct costs include expenses related to medical consultations, prescription medications, over-the-counter treatments, and skincare products. Indirect costs may involve lost productivity due to medical appointments or psychological distress. In severe cases, acne scarring may necessitate costly cosmetic procedures, further adding to the economic burden (Layton et al., 2019).

Conventional therapeutic approaches for acne vulgaris encompass a range of topical and systemic treatments. Topical agents include benzoyl peroxide, retinoids, and antibiotics. These medications work through various mechanisms, such as reducing inflammation, killing bacteria, and normalizing skin cell turnover. Systemic treatments, typically reserved for more severe cases, include oral antibiotics and isotretinoin (Beers, 2006). While these interventions demonstrate efficacy in managing acne, they are not without limitations and adverse effects. Topical treatments can cause skin irritation, dryness, and photosensitivity. Oral antibiotics may lead to gastrointestinal disturbances and contribute to antibiotic resistance. Isotretinoin, while highly effective, is associated with potentially severe side effects, including teratogenicity, requiring careful monitoring and strict contraceptive measures in females of childbearing age (Beers, 2006).

Contemporary issues related to cost, accessibility, environmental impact, emotional distress, and social stigma have become increasingly apparent in the context of conventional acne treatments. The economic burden associated with acne treatment presents a significant challenge, as many conventional medications are prohibitively expensive. This high cost renders effective treatments inaccessible to individuals with limited financial resources, potentially exacerbating health disparities (Layton et al., 2019). Moreover, the widespread use of antibiotics in acne management has contributed to the

emergence of antibiotic-resistant strains of Cutibacterium acnes. This growing resistance poses a significant challenge to long-term acne management strategies and highlights the need for alternative approaches that do not rely heavily on antibiotic use (Vasam et al., 2023).

Environmental concerns surrounding conventional acne treatments have gained increasing attention in recent years. Many chemical-based medications used in acne management pose potential environmental hazards, particularly when washed off the skin and introduced into aquatic ecosystems. These chemicals can disrupt aquatic life and contribute to water pollution. Additionally, the manufacturing processes associated with these medications contribute to greenhouse gas emissions and other forms of industrial pollution, raising questions about the long-term sustainability of these treatment approaches (Layton et al., 2019).

The emotional and psychological impact of acne vulgaris is substantial, particularly among adolescents and young adults who often exhibit heightened self-consciousness regarding their appearance. The visible nature of acne lesions can lead to feelings of embarrassment, social anxiety, and reduced self-confidence. Frustration and hopelessness experienced by individuals with treatment-resistant acne or those experiencing severe side effects from conventional treatments can precipitate feelings of low self-esteem, anxiety, and depression (Layton et al., 2019).

Social stigmatization and discrimination faced by individuals with acne further exacerbate the psychological and emotional burden of the condition. The use of derogatory terminology and negative perceptions towards affected individuals can profoundly impact their social interactions and overall well-being. This stigma can lead to social isolation, reduced participation in activities, and negatively affect academic or professional opportunities (Layton et al., 2019). In response to these contemporary challenges associated with conventional acne treatments, there is a growing impetus to explore alternative and more sustainable approaches to managing this skin condition. One promising strategy involves the utilization of evidence-based herbal medicines, which possess a rich historical legacy in traditional cultures and are garnering increasing attention within the scientific community (Nasri et al., 2015; Yarnell & Abascal, 2016).

Herbal medicines offer several potential advantages in acne management. Many herbs possess natural antibacterial, anti-inflammatory, and anti-androgenic properties that may prove beneficial in addressing the underlying causes of acne. For example, tea tree oil has demonstrated antibacterial activity against Cutibacterium acnes, while green tea extract has shown anti-inflammatory effects that may help reduce acne-related inflammation (Malhi et al., 2017; Saric et al., 2016). Other herbal remedies, such as chasteberry, have shown promise in managing hormonal acne by modulating androgen levels. Black seed and spikeweed have also demonstrated potential in acne management through their antimicrobial and anti-inflammatory properties (Aime et al., 2011). These natural remedies offer potential solutions to address the shortcomings of conventional treatments, presenting a more sustainable and holistic approach to acne management.

The use of herbal medicines in acne treatment aligns with the growing consumer demand for natural and sustainable healthcare options. Many individuals are seeking alternatives to synthetic medications, driven by concerns about side effects, environmental impact, and a desire for more holistic treatment approaches. Herbal medicines, when properly researched and applied, can offer a bridge between traditional wisdom and modern scientific understanding. However, it is important to note that the use of herbal medicines is not without challenges. The standardization and quality control of herbal products can be complex, and there is a need for more rigorous scientific studies to establish the efficacy and safety of these treatments. Additionally, potential interactions between herbal remedies and conventional medications must be carefully considered.

The present study aims to elucidate the contemporary issues associated with conventional acne treatments and propose a path forward, emphasizing the potential of evidence-based herbal medicines as a promising alternative strategy. By addressing the economic, environmental, emotional, social, and spiritual dimensions of acne management,

this research seeks to provide a comprehensive understanding of the challenges faced by individuals with acne and offer viable solutions to enhance their overall well-being and quality of life.

Future research in this field should focus on conducting large-scale clinical trials to evaluate the efficacy and safety of herbal medicines in acne management. There is also a need for studies exploring potential synergies between herbal remedies and conventional treatments, which could lead to more effective and well-tolerated treatment regimens. Additionally, investigations into the long-term sustainability and environmental impact of herbal medicine production and use would be valuable in assessing their potential as eco-friendly alternatives to conventional acne treatments.

In conclusion, acne vulgaris remains a significant global health concern with far-reaching impacts on individuals' physical, psychological, and social well-being. As we continue to grapple with the limitations and challenges of conventional acne treatments, the exploration of evidence-based herbal medicines offers a promising avenue for developing more sustainable, accessible, and holistic approaches to acne management. By integrating traditional knowledge with modern scientific methodologies, we can work towards more effective and patient-centered solutions for this common yet complex skin condition.

2. Methods

The study involved an extensive literature review, including reports from stakeholders as well as studies conducted both globally and locally. The aim was to explore contemporary issues related to conventional acne treatment by examining a range of sources to provide a comprehensive understanding of the current state of the art. Through this in-depth investigation, the study was able to identify key areas of concern in the current acne treatment landscape.

The contemporary issues identified are multifaceted, encompassing economic, environmental, emotional, social and spiritual dimensions. These concerns reflect the complexity of the challenges faced by individuals and communities in managing acne through conventional methods. Addressing these issues requires a broader perspective that focuses not only on the medical and scientific aspects, but also considers the social and psychological impacts that accompany traditional acne treatment approaches.

3. Result and Discussion

3.1 The contemporary issues

Table 1 shows the types of conventional drugs commonly used to treat acne. Meanwhile, The management of acne vulgaris through conventional approaches has been a long-standing practice, yet numerous contemporary challenges persist in its application. These challenges encompass a range of societal concerns and current problems that have been prevalent since the inception of human civilization. Despite the widespread use of conventional acne treatments, a significant proportion of affected individuals continue to grapple with finding a definitive and efficacious solution (Layton et al., 2015). The utilization of conventional pharmaceuticals in acne management is associated with multiple issues, including economic, environmental, emotional, social, and spiritual dimensions.

The economic ramifications of conventional acne therapies are primarily linked to their high costs, rendering them inaccessible to individuals with limited financial resources. This predicament disproportionately affects females, who often exhibit heightened beauty consciousness and tend to patronize various cosmetic pharmaceutical enterprises under the misconception that higher-priced medications yield superior efficacy. This behavior not only imposes substantial financial burdens on patients and their families but also contributes to overprescription, potentially resulting in more harm than benefit.

Table 1. Acne conventional drugs

S/N	Action	Drug	Adverse effects	Comment
1.	Topical antibacterial	Benzoyl peroxide 2.5%, 5% and 10% gel, lotion or wash.	Dries the skin; may bleach clothing and hair; rare allergic reaction.	Should be used in all patients if tolerated. Gel product usually preferred.
		Benzoyl peroxide/erythromycin benzoyl peroxide/ Clindamycin	Diarrhea (rarely).	Must be kept refrigerated.
		Clindamycin 1% gel or lotion		Avoid in patients with inflammatory bowel disease
		Erythromycin 1.5 to 2% (multiple vehicles).		Well tolerated
2.	Topical comedolytic and exfoliant	Tretinoin (0.025%, 0.05% and 0.1% cream; 0.05% liquid; 0.025% and 0.1% gel).	Irritates skin; increases sun sensitivity.	If irritation occurs, reduce strength and/or frequency of use. Acne appears to worsen when tretinoin is started; may take 3-4 weeks to notice any improvement; protective clothing and sunscreen should be worn. Avoid pregnancy.
		Tazarotene 0.05% or 0.1% cream or gel.	Irritates skin; increases sun sensitivity.	Acne appears to worsen when tazarotene is started; may take 3 to 4 weeks to notice any improvement; protective clothing and sunscreen should be worn, avoid in pregnancy.
		Adapalene 0.01% gel.	Some redness, burning and increases sun sensitivity.	As effective as tretinoin but less irritating; protective clothing and sunscreen should be worn.
		Azelaic acid 20% cream.	May lighten skin.	Minimally irritating; may be used by itself or with tretinoin; should be used cautiously in people with darker skin because of skin-lightening effects.
		Glycolic acid 5-10% cream, lotion, or solution.	Stinging, mild irritation.	OTC product, which may be used as adjunct therapy .
		Salicylic acid in propylene glycol 1-2% in wash, peel, mask, lotion.	Stinging, mild irritation.	OTC product, which may be used as adjunct therapy.
3	Oral antibiotics	Tetracycline 250-500 mg bid.	Sensitizes skin to sunlight.	Inexpensive and safe, but must be taken on an empty stomach; protective clothing and sunscreen should be worn.
		Doxycycline 50-100 mg bid.	Sensitizes skin to sunlight.	Protective clothing and sunscreen should be worn.
		Minocycline 50-100 mg bid.	Headache, dizziness, skin discoloration.	Most effective antibiotic but more costly.
		Erythromycin 250-500 mg bid.	Stomach upset.	Bacteria frequently become resistant to erythromycin.
4.	Oral retinoid	Isotretinoin 1-2 mg/kg once/day for 16-20 wk.	Can harm a developing fetus; can affect blood cells, liver and	A sexually active woman should have a pregnancy test before she starts taking isotretinoin and at monthly intervals while

	fat levels; dry eyes chapped lips, drying of the mucous membranes; pain or stiffness of large joint's and lower back with high dosage; has been associated with depression, suicidal thoughts, attempted suicide, and (in rare cases) completed suicide.	she is taking it; contraception or sexual abstinence should begin 1 month before she starts taking the drug and should continue while she takes it and for 1 month after she discontinues it. Blood tests are necessary to make sure the drug is not affecting blood cells, the liver, or fat (triglyceride).

The environmental impact of conventional acne medications is a significant concern. These chemical-based treatments can be detrimental to ecosystems, particularly when they are washed off and enter water systems, leading to pollution. Furthermore, certain medications, such as isotretinoin, have demonstrated various adverse effects and teratogenic properties, contributing to skin scaling and irritation. This compels patients to conceal their faces with masks, which may exacerbate acne breakouts due to increased skin contact. Additionally, the manufacturing processes of conventional pharmaceuticals generate greenhouse gas emissions and other pollutants, contributing to climate change and air pollution.

Acne can induce substantial emotional distress and embarrassment, particularly among adolescents and young adults who are often hypersensitive about their appearance. The extensive use of antibiotics in acne treatment has led to the emergence of resistant acne-related pathogens. When treatments prove ineffective or side effects become severe, patients may experience frustration and hopelessness regarding the prospect of finding an efficacious solution. These experiences can contribute to diminished self-esteem, anxiety, and potentially depression.

The limited effectiveness of many conventional acne medications is a pressing concern, as some treatments may paradoxically exacerbate acne breakouts. Patients experiencing adverse effects such as skin bleaching may face social stigma and discrimination, often manifesting in derogatory appellations. This social ostracism can have detrimental effects on mental health, leading to self-imposed isolation from social gatherings. The spiritual dimension of acne treatment is particularly relevant in the context of skin bleaching, a side effect associated with certain conventional medications. This phenomenon may be perceived negatively within some religious communities, with affected individuals being viewed as sinners or ungodly for allegedly violating divine prohibitions. This perception is rooted in religious texts, including the Al-Qur'an (Chapter 2:128, 208) and the Bible (Chapter 1:5), which emphasize gratitude and acceptance of one's natural attributes.

3.2 Solutions and way forward

Despite the recent therapies adopted in the developed countries for managing acne such as the laser therapy, light-based treatment and the chemical peel therapy. These were also reported (Layton et al., 2015) to be associated with adverse effects and potential risk such as premature aging of the skin and an increased possibility for skin cancer development later in life apart from irritation, infection, scarring, and uneven coloring of the skin among others. Moreover, there is growing interest in the use of probiotics and nanotechnology in treating acne. The emerging therapies are still in their early stage of

development and some studies made, revealed potential risk associated with their usage (Goodarzi et al., 2020).

Rutonic herbs represent an optimal, contemporary plant-derived medicinal extract, validated through scientific research and integrated into modern pharmaceutical practices without adverse effects. The utilization of herbal medicine as a complementary and alternative therapeutic approach presents a promising strategy. Historically, herbal remedies have demonstrated efficacy in acne treatment since antiquity. Research conducted by Nasri (2015) indicates that numerous herbs with traditional applications have entered the expanding cosmeceutical market due to their advantages, including enhanced patient tolerance, extensive historical usage, minimal or absent side effects, and comparative cost-effectiveness.

Multiple studies, including systematic reviews and Cochrane analyses, have substantiated the efficacy of these herbal preparations. Their therapeutic effects extend beyond antibacterial properties, encompassing influences on androgenicity, sebum production, inflammation, and hyperkeratinization associated with acne (Yarnell, 2016).

Tea tree oil (Maleleuca alternifolia), an essential oil extracted from the leaves of an Australian native plant, has been utilized for several decades in acne management. Its active constituents include terpinen-4-ol, alpha-terpineol, and alpha-pinene. A comprehensive review study conducted by Hasanah et al. (2022) evaluated existing evidence on tea tree oil's efficacy in acne treatment. The researchers concluded that tea tree oil-based products effectively reduce acne lesions due to their antimicrobial properties. The oil's mechanism of action involves structural and functional alterations in bacterial membranes. Several studies have investigated its antimicrobial activity against C. acnes, reporting minimum inhibitory concentrations (MIC) between 0.3% and 0.6%, and minimum bactericidal concentrations between 0.25% and 0.5%. Additionally, tea tree oil exhibits anti-inflammatory activity; in vitro studies have demonstrated that its main constituent reduces the production of inflammatory mediators such as TNF-α, IL-1β, IL-8, IL-9, and prostaglandins. Tea tree oil can be administered topically or orally, with typical pharmaceutical preparations including creams, gels, and oils. The recommended dosage is a 5% concentration applied twice daily for 8 weeks.

Green tea (Camellia sinensis), native to Southeast Asia, is produced from fresh leaves processed to prevent oxidation of its polyphenolic compounds. Catechins, the primary polyphenols in green tea, constitute approximately 30-42% of its water-soluble solids. The four principal catechins are epigallocatechin-gallate, epicatechin-gallate, epigallocatechin, and epicatechin. Green tea has shown particular efficacy in treating mild to moderate acne (Sivamani, 2016). Its mode of action includes antioxidant activity through the induction of antioxidant enzymes, free radical scavenging, and inhibition of lipid peroxidation. The antibacterial activity results from alteration of bacterial membranes and inhibition of fatty acid synthesis. Green tea also reduces sebum production by inhibiting 5α-reductase enzymes. It can be administered orally or applied topically as a moisturizing agent. The recommended topical dosage is a 2% lotion applied twice daily for 6 weeks, while oral administration involves one tablet daily for 4 weeks or consumption as a tea.

Chasteberry (Vitex agnus castus), the fruit of the chaste tree predominantly found in Mediterranean regions, contains essential oils (limonene, sabinene, and 1,8-cineole [eucalyptol]), iridoid glycosides (e.g., agnoside aucubin), diterpenes (e.g., vitexilactone, rotundifuran), and flavonoids (e.g., apigenin, castican, orientin, and isovitexin). Its anti-androgenic effect is attributed to binding to dopamine D2 receptors in the pituitary gland, leading to increased progesterone and decreased estrogen levels, subsequently regulating androgen hormones and reducing sebum production and hair follicle activity. The German Commission E recommends a daily intake of 40 mg for 3 months in tablet or capsule form, preferably taken in the morning when pituitary gland activity is at its peak (Wuttke et al., 2003).

Black seed (Nigella sativa), a medicinal plant widely distributed in Mediterranean countries, the Middle East, and Western Asia, has demonstrated medicinal properties throughout history. Its active constituents include terpenes, phenols, and flavonoids. A

clinical study conducted in 2010 on 62 patients with acne revealed that a 20% black seed oil lotion was more effective in reducing acne lesions and scars compared to a 5% benzoyl peroxide lotion (Goodarzi et al., 2020). The oil's antibacterial activity is attributed to thymoquinone, which inhibits bacterial cell wall formation. Linoleic acid, oleic acid, and stearic acid present in the oil contribute to unclogging pores and regulating sebum production. The phenolic compounds in black seed exhibit antioxidant properties, reducing oxidative stress and neutralizing free radicals on the skin, thereby aiding in the treatment of hypopigmentation and acne scars.

Spikeweed (Guiera senegalensis), locally known as 'sabara' in the Hausa language of northern Nigeria, belongs to the Combretaceae family. It is a significant West African medicinal plant found in dry areas from Senegal to Sudan. The leaves of G. senegalensis contain active ingredients such as retinoic acids, resins, alkaloids, tannins, saponins, glycosides, and terpenes (Aime et al., 2011). Studies indicate that it functions by increasing skin cell turnover, removing dead cells from the skin surface, and preventing proliferation and spot formation, as illustrated in Figure 1.

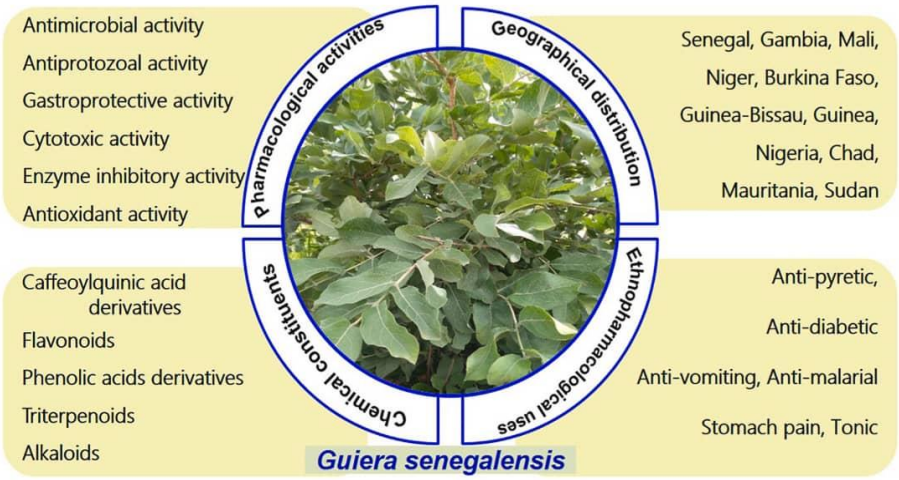

Fig. 1. Spike Weed

Aloe vera (Aloe barbadensis miller), native to the Arabian Peninsula, is characterized by long green leaves with thorny margins filled with mucilaginous pulp. More than 75 different components have been identified in A. vera gel, including polysaccharides, anthraquinones, flavonoids, terpenes, saponins, amino acids, minerals, and vitamins. Anthraquinones, the most significant secondary metabolites in A. vera, are responsible for its astringent, anti-inflammatory, antioxidant, and healing properties. A. vera gel has been shown to minimize adverse effects associated with tretinoin administration (Kumar, 2019). Its mode of action encompasses antimicrobial, anti-inflammatory, antioxidant, and in vivo anti-acne properties.

While extensive discovery, conceptual development, and preclinical research have been conducted on the aforementioned herbs, it is imperative to pursue clinical research and subsequent review by Food and Drug Administration (FDA) scientists. This review should encompass drug research and labeling information regarding the appropriate use of these herbs. If findings demonstrate the herbs' benefits and the feasibility of manufacturing high-quality products, FDA approval should be sought for integration into conventional acne treatment protocols. Continued post-approval monitoring of these herbal preparations should be implemented to ensure ongoing safety and efficacy.

4. Conclusion

Acne vulgaris is a widespread skin condition that affects a significant portion of the population, particularly adolescents and young adults. While conventional treatments for acne, such as topical and oral medications, are widely available, there are several

contemporary issues surrounding their usage that warrant attention. One of the primary concerns is the economic burden associated with conventional acne treatments. Many of these medications are expensive, making them inaccessible to individuals with limited financial means. This disproportionately affects female patients who are often more conscious of their appearance and may seek out multiple, costly treatments in the hope of finding an effective solution. The high cost of conventional treatments contributes to over-prescribing, which can lead to adverse effects and further harm.

In addition to the economic challenges, conventional acne medications also pose environmental concerns. Many of these treatments are chemical-based, and when washed off the skin, they can enter water systems and contribute to pollution. The production of these medications can also generate greenhouse gas emissions and other pollutants, further exacerbating environmental issues. Emotionally, acne can be a significant source of distress and embarrassment, particularly for young individuals who are already self-conscious about their appearance. The frustration experienced when conventional treatments are ineffective or cause unwanted side effects, such as skin discoloration, can lead to feelings of low self-esteem, anxiety, and even depression. The social stigma associated with acne, with victims being subjected to derogatory labels, can further compound these emotional challenges. Moreover, the use of conventional acne medications can have unintended social consequences. The side effects of these treatments, such as skin bleaching, can lead to social discrimination and exclusion, with victims being perceived as unnatural or sinful. This is particularly concerning in cultures where appearance and conformity are highly valued, and any deviation from the norm is viewed negatively.

Given these contemporary issues, it is clear that a more holistic and sustainable approach to acne management is needed. The article highlights the potential of evidence-based herbal remedies as a promising alternative or complementary strategy to conventional treatments. Herbs such as tea tree oil, green tea, chasteberry, black seed, and spikeweed have demonstrated efficacy in treating acne through their antimicrobial, anti-inflammatory, and anti-androgenic properties. The use of these natural remedies offers several advantages over conventional treatments. Herbal medicines are generally more cost-effective, making them accessible to a wider population. They also tend to have fewer side effects, reducing the emotional and social burdens associated with acne treatment. Additionally, the use of natural products is more environmentally friendly, as they are less likely to contribute to pollution and environmental degradation. However, it is important to note that while the preliminary research on these herbal remedies is promising, more comprehensive clinical studies are needed to fully establish their efficacy and safety. The article emphasizes the need for further scientific investigation, including FDA review and approval, to ensure the quality, standardization, and reliable integration of herbal treatments into conventional acne management protocols.

In conclusion, the contemporary issues surrounding the use of conventional acne treatments highlight the need for a more holistic and sustainable approach to managing this common skin condition. The potential of evidence-based herbal remedies presents a promising way forward, offering a more accessible, environmentally friendly, and emotionally supportive alternative to conventional therapies. By addressing the economic, environmental, emotional, social, and spiritual concerns associated with acne management, healthcare providers and researchers can work together to develop a comprehensive and integrated approach that truly addresses the multifaceted needs of individuals affected by this prevalent skin disorder. As the article states, "There is no incurable disease except the lack of will-there is no worthless herb except the lack of knowledge." With a renewed focus on exploring the therapeutic potential of natural remedies and integrating them into conventional acne management strategies, the healthcare community can work to overcome the contemporary issues and provide more holistic and effective solutions for individuals suffering from acne vulgaris.

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