



DERLEME/REVIEW

Effectiveness and Safety of Alternative Smoking Cessation Methods: The Dangers of Departure from the Traditional Approaches

Alternatif Sigara Bırakma Yöntemlerinin Etkinliği ve Güvenliği: Geleneksel Yaklaşımlardan Uzaklaşmanın Tehlikeleri

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ABSTRACT

This review article critically assesses the effectiveness and safety of the following alternative smoking cessation methods: electronic cigarettes, herbal supplements, acupuncture, compared with traditional approaches like nicotine replacement therapy, bupropion, and varenicline. Despite their increased popularity, most of these alternative methods are often lacking in robust scientific evidence and can pose serious health risks. It brought to the forefront case reports, studies revealing dangers, and high failure rates associated with these alternatives. Adhere to the time-tested, evidence-based traditional methods of smoking cessation.

Keywords: Smoking cessation, alternative medicine, nicotine dependence.

ÖZET

Bu derleme makalesi, nikotin replasman tedavisi, bupropion ve vareniklin gibi geleneksel yaklaşımlarla karşılaştırıldığında elektronik sigara, bitkisel takviyeler ve akupunktur gibi alternatif sigara bırakma yöntemlerinin etkinliğini ve güvenliğini eleştirel bir şekilde değerlendirmektedir. Artan popülerliklerine rağmen, bu alternatif yöntemlerin çoğu genellikle sağlam bilimsel kanıtlardan yoksundur ve ciddi sağlık riskleri oluşturabilir. Bu rapor, vaka raporlarını, tehlikeleri ortaya koyan çalışmaları ve bu alternatiflerle ilişkili yüksek başarısızlık oranlarını ön plana çıkarmıştır. Zaman içinde test edilmiş, kanıta dayalı geleneksel sigara bırakma yöntemlerine bağlı kalınması daha etkili ve güvenli olacaktır.

Anahtar kelimeler: Sigara bırakma, alternatif tıp, nikotin bağımlılığı.

Introduction

Addiction to smoking is one of the most prevalent causes of mortality, accounting for several million deaths each year globally. The choice of methods for smoking cessation remains a very critical issue in the fight against addiction. Traditional methods, like nicotine replacement therapy, bupropion, and varenicline, have been tested over the years. However, over the last couple of years, more alternative methods, like electronic cigarettes, herbal supplements, or acupuncture are used; the effectiveness and safety are just worrisome. This paper follows up on the failure rates, possible side effects, and surprising case reports against alternative smoking cessation methods, to emphasize why traditional approaches are essential to adhere to. Effectiveness of Nicotine Replacement Therapy and Traditional Methods Nicotine replacement therapy (NRT) reduces the severity of the symptoms of nicotine withdrawal and therefore makes it easier to quit. A meta-analysis conducted by Stead et al. showed that NRT increased smoking cessation rates by 50-70 percent¹.

Pharmacological agents, such as bupropion and varenicline, have also shown high success rates in smoking cessation. For instance, a study by Jorenby et al. revealed that varenicline more than doubled the quit rates compared to placebo².



E-Cigarettes: An Alternative or a Menace? The evidence supporting the effectiveness and safety of e-cigarettes is thin; after all, they are marketed as a means for quitting smoking. In their conducted meta-analysis, Kalkhoran and Glantz got no significant effect of e-cigarettes on quitting smoking. In fact, many users continue to smoke conventional cigarettes in addition to their e-cigarette use^{3,4}. Further, the long-term health effects of e-cigarettes remain unclear, and in some instances, serious side effects have been reported. For example, Sommerfeld et al. reported on a 35-year-old man who presented with ARDS that required critical care after the use of e-cigarettes⁵. Figure 1 depicts the trend of respiratory-related illnesses due to the use of e-cigarettes among active users from the year 2010 to 2023. This figure probably outlines the relationship between escalating rates of e-cigarettes and various associated respiratory disorders, including acute respiratory distress syndrome (ARDS) cases. This figure gives a graphical perspective, by accounting for this trend, on the possible health risks associated with the use of e-cigarettes and points out how questionable their safety is as an alternative approach to quitting smoking.

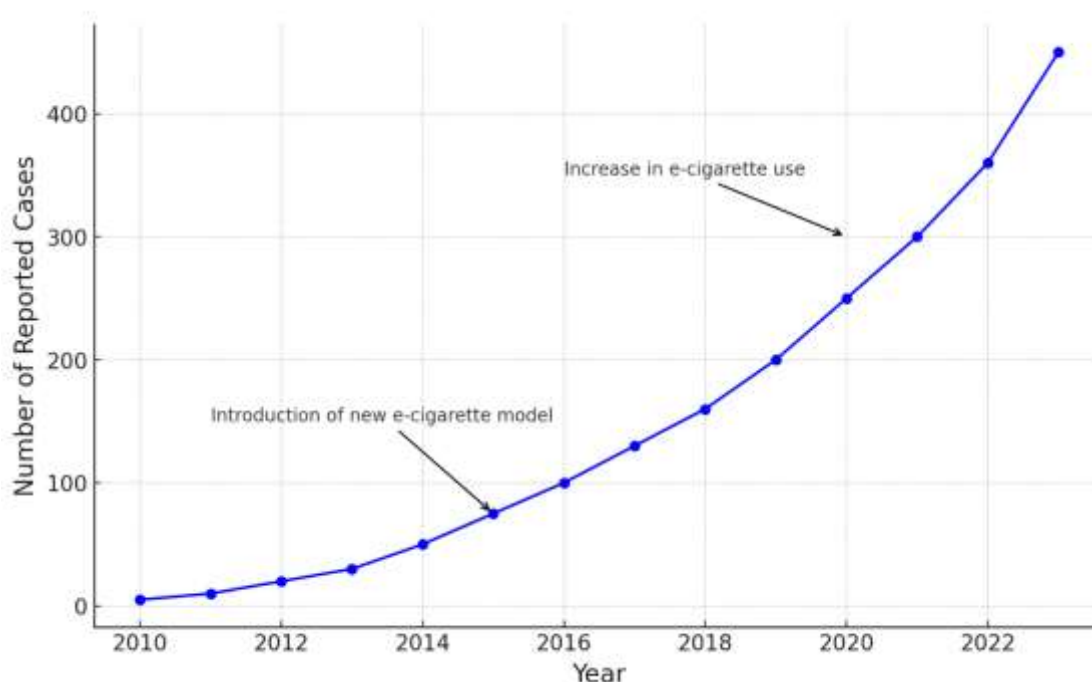


Figure 1. Respiratory diseases due to e-cigarette use (2010-2023).

For example, a 25-year-old woman used e-cigarettes and went into severe anaphylactic shock, for which she required emergency treatment⁶. These cases prove that e-cigarettes are far from safe for the purpose of smoking cessation. Herbal Supplements: Is Natural Always Safe? Herbal supplements are another alternative resource in the process of quitting smoking. This alternative is strongly deprived of scientific evidence proving that it is safe and efficient⁷.

In one instance, a patient who was taking a herbal supplement to quit smoking ended up developing acute liver failure and had to have an urgent liver transplant⁷. Such cases have brought out the risks and dangers of herbal supplements and the amount of care that should be taken in using such a product. The fact that it is natural does not guarantee the safety. Acupuncture: Ineffectiveness and Side Effects Another alternative method that has been used to quit smoking is acupuncture⁸. However, the results from most studies about this alternative method indicated that acupuncture was no better than placebo in smoking cessation. In fact, according to a systematic review done by Lee et al., the evidence to support acupuncture as a treatment for smoking cessation is very poor⁸. Moreover, acupuncture-related side effects must not be overlooked either.

For instance, one of the patients being treated by acupuncture for smoking addiction developed a grave infection around the point of needle insertion, which required hospital care⁹. Table 1 presents other acupuncture-related complications reported in the literature.

Table 1. Reported complications associated with acupuncture.

Complication	Number of Reported Cases	Treatment Required
Infection	10	Hospital treatment
Needle breakage	3	Surgical intervention
Nerve damage	5	Physical therapy

Table 2 shows the summary of success rates and main side effects of other alternative smoking-cessation methods in case examples with risk highlighting.

Table 2. Alternative Methods of Quitting Smoking—Success Rates and Side Effects

Method	Success Rate (%)	Side Effects
Electronic Cigarettes	10-20	Acute respiratory failure, anaphylactic shock
Herbal Supplements	15-25	Hepatotoxicity, allergic reactions
Acupuncture	5-15	Infection, nerve damage

Alternative therapies are usually adopted to complement or replace conventional medical treatments, particularly in instances when patients are seeking assistance beyond what conventional methods can offer. Whatever alternative therapies there may be employed, these must be done under medical supervision to ensure their safety and efficacy. For example, the acupuncture or herbal supplement methods may prevent stress or alleviate symptoms, but scientific evidence about their effectiveness is rather limited, and an inappropriate application may result in side effects. There is evidence that combining alternative approaches with evidence-based treatments may help in some instances as this increases satisfaction and perceived control over health outcomes. Yet, such integration must be done under guidance, as risks, the management of possible side effects, and interactions with conventional medications need to be considered by health professionals¹⁰⁻¹².

Conclusion

The hype surrounding alternative methods to quit smoking can ultimately play on the hopes of those seeking to end the addiction. However, their effectiveness remains questionable, and some even pose serious health risks. For example, electronic cigarettes can have dire effects on lung health, while herbal supplements and acupuncture show dangerous side effects as well.

The case examples reviewed in this article clearly explain the high failure rates of alternative methods and serious health risks. Therefore, it is important to avoid alternative methods in smoking cessation and resort to evidence-based, proven traditional methods. Among the most reliable and effective ways to combat smoking addiction, nicotine replacement therapy, bupropion, and varenicline are at the top of the list. The decisions in smoking cessation should be guided by scientific proof, and patients' health should not be jeopardized.

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