Assessing the Efficacy of Nicotine Replacement Therapy in Facilitating Smoking Cessation Among Young Male Smokers (Aged 25 Years and Below)

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Course

Date

Review of Literature

The following literature review summarizes previous conducted studies with the associated effects of NRT on chronic smokers that want to quit smoking. The studies investigate the significance that NRT has on adult smokers, women during pregnancy, and those with certain diseases. Several randomized clinical trials were taken to evaluate the success rate of NRT on these individuals.

Kushnir, V., Selby, P., Zawertailo, L., Tyndale, R. F., Leatherdale, S. T., & Cunningham, J.
 A. (2018). Long-term effectiveness of mailed nicotine replacement therapy: Study protocol of a randomized controlledres trial 5-year follow-up. *BMC Public Health*,
 18(1), 1-8. https://doi.org/10.1186/s12889-017-4586-z

Kushnir et al. conducted a study involving a 5-year-old follow-up survey of the people they had taken through a trial of a rehabilitation process to evaluate the effectiveness of nicotine replacement therapy (NRT) for regular adult smokers. They delivered the NRT to the patients through expedited postal mail during the treatment. The researchers discovered that mailed delivery of the NRT had more success among the adults who were willing to quit compared to the usage of intervention groups. As a result, the team formulated a six-month follow-up to track the patients and record their progress. They adopted the trainer interview approach with 924 participants. During their analysis, they assessed each person's smoking status and level of nicotine dependence. Each participant recorded their experience on the mailed questionnaires. The investigators also used telephone calls to get immediate responses. They also met the ethical requirements through the review committee of the Center for Addiction and Mental Health (CAMH) (Kushnir et al., 2018). The data revealed that NRT was effective in helping people quit

smoking if they administered it long-term. As a result, this study promoted evidence-based treatment for tobacco smokers.

Ellerbeck, E. F., Nollen, N., Hutcheson, T. D., Phadnis, M., Fitzgerald, S. A., Vacek, J., ... & Richter, K. P. (2018). Effect of long-term nicotine replacement therapy vs. standard smoking cessation for smokers with chronic lung disease: A randomized clinical trial. *JAMA Network Open*, 1(5), 1-14. doi:10.1001/jamanetworkopen.2018.1843

Ellerbeck et al. compared long-term nicotine replacement therapy with standard cessation techniques in this study. They wanted to determine if the long-term nicotine replacement therapy could increase cessation rates or reduce carcinogen exposure levels among smoker patients, especially those experiencing obstructive pulmonary illness. The researchers employed randomized clinical trials, including 398 participants in their investigations. The contributors were all victims of chronic obstructive pulmonary disease. They divided them into groups, taking 23 people to receive standard smoking cessation interventions and another 24 to go through long-term nicotine replacement therapy. However, they reduced the two clusters' carcinogen and smoke exposure levels. After analyzing their results, Ellerbeck et al. discovered that long-term nicotine replacement therapy is suitable for smokers experiencing chronic obstructive pulmonary conditions. Nevertheless, it does not have better effects on the patients because it does not result in a more significant reduction in dangers and cessation. The impact of the therapy was minimal for participants who continued to smoke during their trials. Therefore, long-term nicotine replacement therapy did not significantly differ from standard cessation techniques.

Giulietti, F., Filipponi, A., Rosettani, G., Giordano, P., Iacoacci, C., Spannella, F., & Sarzani, R. (2020). Pharmacological approach to smoking cessation: An updated

review for daily clinical practice. *High Blood Pressure & Cardiovascular Prevention*, 27(5), 349-362. https://doi.org/10.1007/s40292-020-00396-9

Giulietti et al. recognize that tobacco smoking is a significant health concern because it reduces cardiovascular activity and mortality. Health experts have used various strategies to treat smoking dependence, mainly pharmacological and non-pharmacological therapies. In this study, Giulietti et al. analyze multiple treatment techniques, including Nicotine replacement therapy, to determine their efficacy and safety in treating tobacco addicts. The researcher records that tobacco addiction results from the pharmacodynamics of nicotine. During this process, nicotine binds acetylcholine receptors in the central nervous system, stimulating the secretion of neuromodulators. Through this, it promotes desire and prolongs consumption. While a person can make behavioral changes to overcome tobacco addiction, Giulietti et al. explain that pharmacological treatments like NRT and bupropion are excellent. In particular, the researchers record that NRT stimulates nicotine receptors to remove withdrawal symptoms and cravings. It also reduces the number of available nicotine receptors. Giulietti et al. also note that the type of NRT the physicians apply should align with the patient's preferences to achieve the best outcomes.

Bar-Zeev, Y., Lim, L. L., Bonevski, B., Gruppetta, M., & Gould, G. S. (2018). Nicotine replacement therapy for smoking cessation during pregnancy. *Medical Journal of Australia*, 208(1), 46-51. Retrieved from

https://www.mja.com.au/system/files/issues/208_01/10.5694mja17.00446.pdf

Bar-Zeev et al. begin the article by stating that smoking during pregnancy can have a severe infant and maternal risks. In 2014, at least 11% of women in Australia who gave birth after smoking at some point during their pregnancy became highly vulnerable. Medication and

behavioral therapies have been instrumental in reducing smoking among expectant women. Bar-Zeev et al. argue that counseling alone can help smoking women overcome their habit. Nicotine replacement therapy (NRT) became the best approach for women who could not stop smoking without external help. Physicians continually recommend NRT since it poses no health concerns to the patient and helps them overcome confidence issues. The researchers used previous studies to support their findings that NRT during pregnancy improves smoking cessation rates. They used online studies to find enough evidence to validate their hypothesis. They also applied observational and randomized controlled studies. They concluded that NRT effectively treats pregnant females who experience smoke addiction issues. However, they recommended more studies to determine the safety of high NRT doses during pregnancy.

Hajek, P., Phillips-Waller, A., Przulj, D., Pesola, F., Myers Smith, K., Bisal, N., ... & McRobbie, H. J. (2019). A randomized trial of e-cigarettes versus nicotine-replacement therapy. New England Journal of Medicine, 380(7), 629-637. doi: 10.1056/NEJMoa1808779

In this study, Hajek et al. compared the effectiveness of e-cigarettes and nicotine-replacement therapy in treating smokers. They adopted an active approach where they assigned participants stop-smoking services using their preferred nicotine-replacement products or e-cigarette starter packs. The exercise was random at lasted for at least four weeks. They created a follow-up for the patients to track the effectiveness of the treatment methodology. When they analyzed the results, they determined that 886 people had participated in the test. In the 1-year abstinence rate they evaluated, they also discovered that only 9.9% of the participants considered the NRT approach, while 18% opted to use the e-cigarettes. The outcome revealed that the e-cigarettes group healed faster than the NRT group. Those who used NRT recorded more nausea

and throat and mouth irritation than those who chose e-cigarettes. However, both teams did not reveal any differences in wheezing or shortness of breath. The researchers concluded that e-cigarettes are better than NRT. However, both require behavioral support.

Schlam, T. R., Cook, J. W., Baker, T. B., Hayes-Birchler, T., Bolt, D. M., Smith, S. S., ... & Piper, M. E. (2018). Can we increase smokers' adherence to nicotine replacement therapy, and does this help them quit? *Psychopharmacology*, 235(7), 2065-2075. https://doi.org/10.1007/s00213-018-4903-y

This research evaluated the impacts of five intervention components on smokers who used the nicotine gum and patch during a quit attempt. After that, the investigators wanted to assess how adherence would facilitate cessation. Schlam et al. began the exercise by offering nicotine patches and gums to smokers willing to quit. It was a randomized factorial experiment. The five intervention components the researchers evaluated were loyalty to medication counseling, automated enthusiasm response to treatment calls, electronic supervision and feedback, 26 weeks of nicotine patch and 8 weeks of nicotine gum, and upkeep with counseling gatherings. The investigators discovered that loyalty to nicotine patches and gums related directly to the abstinence levels of the patients. However, it was unclear whether adherence increased or decreased medication discontinuation. Generally, it was a successful exercise.

Moore, D., Aveyard, P., Connock, M., Wang, D., Fry-Smith, A., & Barton, P. (2009).

Effectiveness and safety of nicotine replacement therapy assisted reduction to stop smoking: systematic review and meta-analysis. *BMJ Publishing Group Ltd*, 338. https://doi.org/10.1136/bmj.b1024

Moore et al. used the study to investigate the safety and effectiveness of nicotine replacement therapy in assisting smokers. They employed randomized controlled trials for data

collection and analysis. The researchers enrolled participants willing to quit and converted the study into a short-term treatment exercise. They applied NRT and compared the output with a placebo approach they had created where they did not have any treatment or utilized other pharmacological therapies and motivational supports. The investigator had two reviewers who independently adopted the eligibility criteria. In the first instance, the critic examined study quality to extract data, while in the other case, the analyzer processed and confirmed the information from the first individual. The primary concern during these investigations was cessation or smoking reduction at the end of the treatment. They also wanted to uncover the presence of any adverse effects. The study showed that NRT is an effective intervention that helps smokers achieve sustained smoking abstinence. The results conformed with existing behavioral studies evaluating the roles of NRT. However, it was unclear if NRT would achieve similar results without regular communication with the patient.

Robson, N. (2010). Nicotine-replacement therapy: A proven treatment for smoking cessation. Official journal of the South African Academy of Family Practice/Primary Care, 52(4), 298-303. http://dx.doi.org/10.1080/20786204.2010.10873993

Robson carried out this study to evaluate the effectiveness of NRT. According to the writer, smoking causes cardiovascular and respiratory diseases and cancer. While it is a severe medical condition, smokers cannot access effective assistances that help them quit. NRT is a pharmacological approach that accompanies behavioral support to help smokers overcome their addiction. Robson conducted a literature review using OvidMedline and Cochrane Library, applying the keywords of nicotine, primary use, medicine, family, and replacements. He explains that NRT replaces the nicotine in cigarettes, helping the patient overcome withdrawal symptoms during quitting. NRT formulations include chewing gums, transdermal patches, inhalers, tablets,

and nasal sprays. He recognizes that NRT has a low possibility of abuse because it does not have any rapid arterial nicotine concentration found in most cigarettes. Generally, it is a safe approach physician can use to treat smokers and help them overcome their addiction. Robson concludes that doctors should be aggressive while using NRT and apply it with other behavioral support.

West, R., & Zhou, X. (2007). Is nicotine replacement therapy for smoking cessation effective in the "real world"? Findings from a prospective multinational cohort study. *Thorax*, 62(11), 998-1002. http://dx.doi.org/10.1136/thx.2007.078758

West and Zhou argue that increasing smoking cessation can prevent lung cancer and other obstructive pulmonary diseases. They further state that clinicians have identified NRT as a suitable method to stop smoking. Many people have performed clinical trials to evaluate the success rates of NRT. Unfortunately, a recent cross-sectional survey raised some doubts about the effectiveness of this method, especially under unsupervised clinal applications. West and Zhou believed they could address this concern using longitudinal studies. They developed an ATTEMPT cohort, collected data from the internet, and recruited five smokers. The investigations began in 2003 and ended in 2009. The researchers divided it into three phases. The results indicated that NRT allows smokers to make self-inflicted decisions to quit smoking without undergoing formal behavioral support. As a result, NRT is suitable for long-term abstinence attempts for smokers.

Wadgave, U., & Nagesh, L. (2016). Nicotine replacement therapy: An overview.

*International Journal of Health Sciences, 10(3), 425. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5003586/

Wadgave and Nagesh argue that the effects of tobacco are preventable. They report that when users become fully aware of the dangers of smoking on their health, they can make informed

decisions to quit the habit. However, they believe quitting smoking is not easy due to nicotine addictiveness. As a result, they support the development of NRT because it temporarily replaces the nicotine from tobacco and motivates the consumer to stop the habit. NRT also helps the individual overcome nicotine withdrawal symptoms, easing the person's transition from cigarette smoking to complete recovery. The researchers record that the various sources of nicotine that experts have incorporated in the tobacco cessation program are nasal spray, transdermal patch, and gums. They used a descriptive research design through literature reviews.

Purushothama, J., & Dadiger, S. (2020). Effectiveness of nicotine replacement therapy on smoking cessation among pulmonary tuberculosis patients of Mangaluru, India:

A randomized controlled trial (preprint). JMIR Research Protocols.

https://doi.org/10.2196/17938(Purushothama & Badiger, 2020)

In Mangaluru, India, Purushothama and Badiger (2020) carried out a randomized controlled experiment to examine the efficacy of nicotine replacement therapy (NRT) on smoking cessation in patients with pulmonary tuberculosis. The study examined the effects of NRT as an intervention for smoking cessation in a particular group of tuberculosis patients, offering insights into the possible advantages of this therapy for people struggling with tobacco addiction. Despite being a preprint and maybe not having through peer review, the research design showed a systematic approach, raising their conclusions' trustworthiness. However, because of the study's focus on tuberculosis patients and its location-specific setting, additional research is required to evaluate whether NRT effectively assists young male smokers aged 25 and under in quitting smoking. These smokers may exhibit different smoking behaviors and motives. Despite these drawbacks, this research provides a solid foundation for understanding

NRT's possible effects and supports the necessity for focused studies on young male smokers to fill in knowleedge gaps successfully.

Rozario, H. P. (2016). 577P nicotine dependence assessment using Fagerstrom Test and nicotine replacement therapy (NRT) recommendation techniques for smoking cessation among paniya tribes. Annals of Oncology, 27, ix187–ix188.

https://doi.org/10.1016/s0923-7534(21)00735-3 (Rozario, 2016)

Rozario (2016) conducted a study on nicotine dependence and nicotine replacement therapy's (NRT) efficacy for smoking cessation among the Paniya tribes. They randomly divided the individuals into two groups, one receiving NRT along with counselling and the other only counselling, and utilized the Fagerstrom Test to assess nicotine dependency. The NRT group had much greater smoking cessation rates, indicating that it helps the Paniya tribes stop smoking. While the study offers some useful information, more research is required to evaluate whether NRT is appropriate for young male smokers who are 25 years of age or younger. Filling this knowledge gap can help health science and smoking cessation therapies become more effective.

Patten, C. A. (2018). A Critical Evaluation of Nicotine Replacement Therapy for Teenage Smokers. Nicotine Addiction Among Adolescents, 51–75.

https://doi.org/10.4324/9781315821429-4 (Patten, 2018)

In the context of adolescent nicotine addiction, Patten (2018) critically assessed nicotine replacement therapy (NRT) for smokers. The purpose of the study was to evaluate NRT's efficacy as a smoking cessation aid for teenagers in particular. The author thoroughly assessed the advantages and restrictions of NRT for this demographic by examining previous studies and supporting data. Given that both of these groups fall within the adolescent age range, the results of this evaluation may be helpful for our study on young male smokers who are 25 years of age

or younger. Our research into using NRT to promote smoking cessation among young male smokers can be influenced by understanding the efficacy and potential difficulties of the treatment for teenage smokers. To accurately assess NRT's effectiveness for young male smokers, however, more study relevant to the target age group of interest is required, given the distinctions between teenage and young adult smokers. Our research can advance knowledge of effective smoking cessation methods for young people by expanding on the conclusions from this critical examination, eventually enhancing public health in the setting of adolescent nicotine addiction.

Klemperer, E. M., Fagerstrom, K. O., & Samp; Hughes, J. R. (2016). Abrupt Versus Gradual Smoking Cessation with Pre-Cessation Nicotine Replacement Therapy for Cigarette Smokers Motivated to Quit. Annals of Translational Medicine, 4(19), 384–384.

https://doi.org/10.21037/atm.2016.08.16 (Klemperer et al., 2016)

In a study published in 2016, Klemperer, Fagerstrom, and Hughes compared precessation nicotine replacement therapy (NRT) with abrupt and progressive smoking cessation methods for smokers who were motivated to stop. The study's main objective was to assess how these two approaches helped people stop smoking. The direct comparison of the two strategies made possible by the study's methodology gave important insights into each strategy's prospective advantages and disadvantages. Although the study largely focused on cigarette users, the examination of pre-cessation NRT's effectiveness is pertinent to our study on young male smokers aged 25 and under since it examines NRT's function as a smoking cessation aid. We can gain a deeper knowledge of NRT's ability to aid young male smokers in quitting smoking by incorporating the results from this study into our research. However, further research specifically targeting this demographic is needed to establish the most effective approach for NRT

utilization. By building on the groundwork laid by Klemperer, Fagerstrom, and Hughes, we can advance the knowledge in implementing pre-cessation NRT in smoking cessation interventions for young male smokers, ultimately assisting in developing more targeted and effective strategies to combat nicotine addiction in this population.

Lam, T.-H., Abdullah, A. S., Chan, S. S., & Eamp; Hedley, A. J. (2004). Adherence to nicotine replacement therapy versus quitting smoking among Chinese smokers: A preliminary investigation. Psychopharmacology, 177(4), 400–408.

https://doi.org/10.1007/s00213-004-1971-y (Lam et al., 2004)

Lam, Abdullah, Chan, and Hedley (2004) conducted a preliminary investigation comparing adherence to nicotine replacement therapy (NRT) versus quitting smoking outright among Chinese smokers. The study aimed to understand the factors influencing Chinese smokers' adherence to NRT and their success in quitting smoking. The research design provided valuable insights into the challenges and motivations specific to this cultural group, shedding light on the potential barriers and facilitators for NRT usage as a smoking cessation aid. While the study focused on Chinese smokers, it offers relevant information for our research on young male smokers aged 25 years and below, as it addresses the broader topic of NRT adherence and its impact on smoking cessation. Incorporating the findings from this study can contribute to a more comprehensive understanding of the cultural and individual factors affecting NRT usage among young male smokers, potentially informing tailored interventions to enhance their adherence to NRT and improve smoking cessation outcomes. However, further research focused on young male smokers is necessary to draw more conclusive results for the specific demographic of interest. By building upon the insights from this investigation, our research can contribute to the development of more effective smoking cessation strategies that consider

cultural and individual factors, ultimately helping young male smokers to quit smoking successfully.

Paul, C., Wolfenden, L., Tzelepis, F., Yoong, S., Bowman, J., Wye, P., Sherwood, E., Rose, S., & Wiggers, J. (2015). Nicotine replacement therapy as a smoking cessation aid among disadvantaged smokers: What answers do we need? Drug and Alcohol Review, 35(6), 785–789. https://doi.org/10.1111/dar.12362 (Paul et al., 2015)

Paul, Wolfenden, Tzelepis, Yoong, Bowman, Wye, Sherwood, Rose, and Wiggers (2015) conducted a study investigating the efficacy of nicotine replacement therapy (NRT) as a smoking cessation aid among disadvantaged smokers. The research focused on understanding the effectiveness of NRT, specifically within the context of disadvantaged populations. By exploring the challenges and potential benefits of NRT for this group, the study provided crucial insights that inform our research on young male smokers aged 25 years and below, as they may also face social and economic disadvantages. Understanding how NRT impacts disadvantaged smokers can shed light on potential barriers and facilitators for NRT utilization among young male smokers in similar circumstances. Incorporating the findings from this study into our research can contribute to a more comprehensive understanding of the factors that influence NRT's effectiveness for specific populations, guiding the development of tailored interventions to support smoking cessation efforts among young male smokers from disadvantaged backgrounds. However, given the distinct characteristics of young male smokers, further research on this demographic is essential to draw direct comparisons and effectively formulate targeted strategies. By building upon the insights from this study, our research can address the unique challenges faced by young male smokers and work towards more inclusive and equitable smoking cessation interventions.

Aveyard, P. (2012). A pragmatic Randomised Controlled Trial to Test the Efficacy of

Nortriptyline plus Nicotine Replacement Therapy (NRT) versus a Placebo plus NRT

in Helping Smokers to Stop and Testing the Role of Noradrenergic and

Dopaminergic Genetic Variants in Smoking Cessation. Http://Isrctn.Org/>

https://doi.org/10.1186/isrctn57852484 (Aveyard, 2012)

Aveyard (2012) conducted a pragmatic randomized controlled trial to evaluate the efficacy of combining nortriptyline with nicotine replacement therapy (NRT) compared to a placebo plus NRT in aiding smokers to quit. The study aimed to test the role of noradrenergic and dopaminergic genetic variants in smoking cessation outcomes. Investigating the impact of combining these interventions and considering genetic factors provided essential insights into potential personalized approaches for smoking cessation. While the study's focus was not on young male smokers, it contributes to the broader understanding of NRT's effectiveness when combined with nortriptyline and the influence of genetic factors on smoking cessation outcomes. Incorporating the findings from this trial can inform our research on young male smokers aged 25 years and below as we consider personalized interventions that may enhance smoking cessation success rates for this demographic. However, further research targeting young male smokers specifically is crucial to determine the applicability of these findings to our proposed study. By building upon the insights from this trial, our research can contribute to the development of tailored smoking cessation strategies that consider individual genetic variants, ultimately improving the efficacy of interventions for young male smokers in their efforts to quit smoking.

Rojewski, A. M., Fucito, L. M., Baldassarri, S., Hyland, A., Cummings, K. M., & D., & Samp; Toll, B. A. (2016). Nicotine replacement therapy use predicts smoking and drinking

outcomes among heavy-drinking smokers calling a tobacco quitline. Journal of Smoking Cessation, 12(2), 99–104. https://doi.org/10.1017/jsc.2016.12 (Rojewski et al., 2016)

Rojewski et al. (2016) examined the relationship between nicotine replacement therapy (NRT) use and smoking and drinking outcomes among heavy-drinking smokers seeking quitline assistance. The study provides insights into the impact of NRT utilization on smoking cessation and alcohol consumption, which can be relevant to our research on young male smokers aged 25 years and below seeking tobacco cessation support. By understanding the role of NRT in the context of both smoking and alcohol behaviors, our research can develop more effective smoking cessation interventions tailored to the specific needs of young male smokers. However, further targeted research is needed to draw direct comparisons between heavy-drinking smokers and the demographic of interest. Incorporating the findings from this study can contribute to comprehensive strategies promoting successful quitting among young male smokers, considering potential alcohol use concerns.

Murphy, M. (2013). General Practice Study of Nicotine Replacement Therapy (NRT) assisted smoking cessation. Http://Isrctn.Org/>

https://doi.org/10.1186/isrctn05689186 (Murphy, 2013)

Murphy (2013) conducted a general practice study on nicotine replacement therapy (NRT) assisted smoking cessation. The research aimed to investigate the efficacy of NRT in helping smokers quit with the support of general practitioners. While the study's focus was on general practice settings, the findings can offer valuable insights for our research on young male smokers aged 25 years and below. Understanding the effectiveness of NRT in a primary care context can guide the development of interventions that incorporate NRT support for young male

smokers seeking to quit smoking. However, further research focusing on young male smokers is necessary to determine NRT's specific impact on the target demographic. By building upon the findings from this study, our research can contribute to the broader understanding of the role of NRT in smoking cessation strategies, ultimately benefiting young male smokers in their efforts to quit smoking.

Agaku, I. T., & Samp; Ayo-Yusuf, O. A. (2013). Awareness of nicotine replacement therapy among South African smokers and their interest in using it for smoking cessation when provided for free. Nicotine & Samp; Tobacco Research, 16(4), 500–505. https://doi.org/10.1093/ntr/ntt202 (Agaku & Ayo-Yusuf, 2013)

Agaku and Ayo-Yusuf (2013) conducted a study on the awareness of nicotine replacement therapy (NRT) among South African smokers and their interest in using it for smoking cessation when provided for free. The goal of the study was to assess South African smokers' attitudes and understanding of NRT as a potential aid in quitting. Despite the study's focus on South African smokers, the conclusions can help our investigation into young male smokers aged 25 and under. Understanding the awareness and interest in using NRT among this demographic can inform the development of targeted smoking cessation interventions that address potential barriers and motivations specific to young male smokers. However, further research specifically targeting young male smokers is necessary to draw direct comparisons. Our research can contribute to a more thorough knowledge of the possible advantages of using NRT as a free smoking cessation assistance for young male smokers by incorporating the results from this study, thereby encouraging effective quitting among this population.

Woo, C. (2018). Efficacy of Vaping as a Nicotine Replacement Therapy for Smoking

Cessation Among Adults: A Review of the Literature. Archives of Medical Case

Reports and Case Study., 1(1), 01–03. https://doi.org/10.31579/2688-7517/002 (Woo, 2018)

Woo (2018) reviewed the available research on the effectiveness of adult smokers using vaping as a nicotine replacement treatment (NRT). The purpose of the review was to evaluate the viability of vaping as a substitute for quitting smoking. Although the review's emphasis was on adults, the findings can still be helpful for our study of young male smokers who are 25 years of age or younger. Understanding the effectiveness of vaping as an NRT option can help build smoking cessation therapies that are suited to the particular requirements and preferences of young male smokers. However, additional study targeting the specified population is required for more precise comparisons due to the disparities between adults and young male smokers. Our study can thoroughly assess vaping as an NRT for smoking cessation among young male smokers by using the data from this literature review, perhaps providing them with fresh and efficient options to help them quit.