

INTRODUCTION

Smoking is a habit that has been around for a long time, and it is one of the leading causes of death worldwide. Despite the various health risks that are associated with smoking such as lung cancer, heart disease, stroke, and respiratory disease, many people still find it challenging to quit. Smoking also increases the risk of developing other types of cancer, such as bladder, liver, and pancreatic cancer. It can also cause premature aging, yellowing of teeth, and bad breath. Therefore, quitting smoking is crucial for a healthier quality of life. This paper aims to provide an informative guide on smoking cessation, with a focus on a 61-year-old mechanic who has smoked daily for the last 30 years. His smoking triggers include stress, coffee, and social situations.

PICO ANALYSIS

Population

The research articles chosen include a target population with an age range between 19-80 years old who smoke cigarettes. This includes racial/ethnic minorities, people from all states within the United States, women who smoke during pregnancy, and people with anxiety and/or depression. However, for the purpose of this analysis, I will be focusing on middle aged group individuals who smoke (age 45-64) and identify as coming from ethnic minority groups. The individual selected has smoked daily for the past 30 years. He is self employed as a car mechanic and has recently made the move to the suburbs of Bakersfield due to financial strains that he experienced while living in Los Angeles. The cost of living in L.A. caused a lot of anxiety and provoked more than usual recurrent smoke breaks. This person still travels for work to LA on a weekly basis where he has access to work out of a rented lot to assist his clients with their car needs. He is very family oriented and socially active, attending every social function that he is invited to. He considers himself to be religious although he says his practice of his religious does not compare to one of someone who may go to church every Sunday and actively participates in service. As a child, he did not actively visit the dentist and only brushed his teeth when he could due to the limited resources that were attainable to him and his family while living and growing up in Mexico.

Intervention Methods

This person will need counseling specifically designed for him and his busy schedule. Due to his busy commute between work and home, he will need intervention methods that don't require constant in office follow up appointments with his physician. In addition, intervention methods should be attainable, that is, affordable. He has a strong family support system to help him stay on track with smoking cessation. He can start with a long overdue appointment to his physician's office to get a full physical and receive initial smoking cessation recommendations

and/or prescriptions. Following this appointment, he can greatly benefit from mobile phone-based interventions such as mobile applications like QuitNow that teach you how to avoid the triggers that lead to smoking. Pharmacotherapy such as nicotine patches, lozenges or gum can also be greatly beneficial in substituting a cigarette in the mouth for these other effective smoking cessation methods. Furthermore, individual counseling with a smoking cessation specialist may serve as an additional support system. Phone appointments may be scheduled as needed in between jobs or during evening hours as to not interfere with normal daily routines.

Comparison between methods

Research suggest that having a strong support system is essential for people interested in smoking cessation programs. In his case, his family is his support system but meeting with a smoking cessation specialist has proven effective due to unbiased judgement. His medical insurance provider may help pay for this individualized counseling. In addition, the combination of pharmacotherapy and the use of mobile phone interventions is strongly suggested. Research has proven that mobile phone applications like QuitNow help people accept the triggers that lead them to smoke and help them navigate ways to avoid those triggers. Pharmacotherapy like nicotine patches, lozenges, and/or gum keep the mouth busy while helping to ease withdrawal symptoms and fight off nicotine cravings.

Expected outcome

Research has shown that smoking cessation with the use of the intervention methods mentioned above has helped improve mental health and reduced overall anxiety levels. Most people report abstinence from all nicotine products (including e-cigarettes) within 3 and 6 months. Compared with other mobile phone applications that are available for support, QuitNow has proven to be 1.49 times more effective than other applications. Physicians' recommendations, smoking cessation specialists, mobile phone applications, and pharmacotherapy, are methods that are proven effective when having the right support group. These methods do not interfere with daily life and do not reduce a person's social quality of life. On the contrary, it improves it because you no longer need to break away from non-smoking groups of friends to take a smoke break. This leads to strong positive relationships, less anxiety, improved mental and overall health, and better energy levels.

CASE OVERVIEW

The patient in this case is a 61-year-old Hispanic male. He is 5'10 and weighs 152 lbs. His occupation as self-employed car mechanic keeps him occupied as he travels back and forth between Los Angeles and Bakersfield for work. It has been several years since his last visit to a physician therefore possible medical conditions are unknown at this time. He consumes large cups of coffee throughout the day and often alternates coffee with Coca-Cola. The patient has smoked roughly half a pack of cigarettes daily for the past 30 years. Some of the triggers that lead him to smoking include stressful situations, coffee, and social situations.

SMOKING CESSATION PROGRAM: RESEARCH CORRELATION & JUSTIFICATION

The five A's of smoking cessation were utilized as a set of evidence-based guidelines to help this patient quit smoking. "This model has shown to be an effective way to help patients to quit smoking in primary care outpatient settings in most of the developed countries." (Chai, et al., 2018)

The five A's of Smoking Cessation were utilized as follows:

Ask: The patient has confirmed that he has been smoking half a pack of cigarettes daily for the last 30 years.

Advise: The patient was informed of the benefit of quitting and the risk of tobacco habit. This was done utilizing educational tools and research as supporting evidence.

Assess: Is this person willing to quit? If so, what are the reasons? To this question, the patient answered that his biggest motivation to quit smoking was his grandkids. His eldest grandson will soon start middle school causing the patient to fear his grandson will pick up this bad habit. In addition, the patient is interested in an improved quality of life and is also motivated by less health risks.

Assist: To assist with quitting, smoking cessation methods such as physician referral, counseling, and pharmacotherapy were utilized.

Arrange: Follow up appointments were set up via phone twice a week for the initial three weeks, and once a week thereafter.

Stress is a common trigger for many smokers, and many believe that smoking calms you down, but they are unaware of the damaging effects. "Smoking ultimately causes more stress. It takes a toll on your respiratory system and contributes to serious illness. These physical ailments may compound your feelings of stress." (Team, T. H. E., 2019) It is important to find alternative ways to manage stress. Some alternatives may include exercising, meditation, laughter, and/or writing in a journal. Counseling and Quitline's may also assist with relieving stress by coaching and providing support to people who want to quit smoking. Individuals who use supportive counseling more than two-to-three times per week increase their chances of quitting by 40%. It is a great way to find coping mechanisms to stay away from cravings and find other useful resources that are available.

Coffee is also a common trigger, and often it is suggested to reduce coffee intake when trying to quit smoking. "Studies show that smoking causes smokers to metabolize caffeine faster. As a result, smokers need to ingest more caffeine to get the same effects of nonsmokers. So, when a smoker tries to quit, they may end up with more caffeine in their system and may need to reduce their caffeine intake when trying to quit." (Treloar, et al., 2014). Without reducing coffee intake, the body will have increased levels of caffeine leading to symptoms of anxiety and irritability that will trigger the desire to smoke.

Social situations can also be challenging, but it is important to find a support system amongst friends and family. Research suggests that having a strong support system is essential for people interested in smoking cessation programs to help them prevent smoking relapse. The support group may assist by providing support when needed and helping to prevent triggers that lead to smoking. Various cessation methods are available such as nicotine replacement therapy,

behavioral therapy, and pharmacotherapy. These methods, especially when used in conjunction with one another, reduce cravings and withdrawal symptoms.

INFORMATIONAL CONTENT OF PATIENT CESSATION AID

The following brochure was made specifically for the patient to reiterate the benefits of smoking cessation, smoking cessation methods, and the risks of secondhand smoking. The images selected depict a Hispanic father and son (or grandfather and grandson) enjoying time together as they play soccer. Since the patient is Hispanic and his favorite pastime is soccer, it seemed important to add images that he could relate to.



Risks of Secondhand Smoking

No amount of exposure to secondhand smoke is safe for anyone. The risks include the following:

For Adults

- Coronary Heart Disease
- Stroke
- Lung Cancer
- Premature Death
- Reproductive Health Effects

For Children

- Respiratory Infections
- Ear Infections
- Asthma Attacks

For Babies

- Sudden Infant Death Syndrome

The inflammatory and respiratory effects of secondhand smoking occur almost immediately (within 60 minutes of exposure).

SMOKING CESSATION



QUIT SMOKING FOR GOOD

Phone counseling is available by calling **1-800-QUITNOW**

Visit **kickitca.org** for program information, coaching, and additional support!

Why quit?

There are several overall health benefits that include the following:

- Improves health and increases life expectancy
- Lowers the risk of 12 types of cancer
- Lowers the risk of cardiovascular diseases
- Lowers the risk of chronic obstructive pulmonary disease (COPD)
- Lowers the risk of some poor reproductive health outcomes.
- Benefits people who have already been diagnosed with coronary heart disease or COPD.
- Benefits people at any age – even people who have smoked for years or have smoked heavily.

Now is the perfect time to stop smoking

- Know your triggers and learn ways to prevent them.
- Stay active/find new hobbies to manage stress
- Manage your mental health so you don't feel the need to smoke anymore

Smoking Cessation Methods

- See a physician for an updated physical
- Nicotine Replacement Therapy: Nicotine Patches, Nicotine Lozenges, Gum, Nasal Spray, Inhaler
- Pharmacotherapy: (Prescription Required) Varenicline, Bupropion
- Behavioral Therapy: Individual/Group counseling, Finding new hobbies.

Did you know that staying active helps cope with stress and gives you more energy throughout the day? It is also beneficial for your overall health.



RESULTS

The patient set a quit date and quit cold turkey. He eliminated all potential temptations by getting rid of all his cigarettes. Initially, quitting seemed difficult, and he relapsed after three days. He set a new quit date and relapsed again after two and a half weeks due to stress. The patient was determined to quit and find alternatives to manage stress. He Attempted smoking cessation a third time and has been smoke free for the last six weeks. To manage stressful situations, he has dedicated more time to playing soccer with his grandson. It is a way for him to be active and spend time with his favorite human. The patient states that his desire to smoke has slowly lessened with each passing day. Some days still feel like a struggle, but he keeps a soccer ball around his workshop to help him relieve stress when he is unable to break free to play a game with his grandson. To him, playing soccer feels like meditation.

What Worked

- Nicotine patches in conjunction with nicotine lozenges
- Progressively reducing daily coffee intake from four cups a day to two cups a day
- Using soccer as a stress reliever and sharing that activity with his biggest motivation to quit, his grandson.

What Didn't Work

- The patient was receptive to counseling, but ongoing counseling was difficult for the patient with his inconsistent work schedule.
- Making time to see a physician for an overdue

In the future, this program could be improved by setting aside more time to follow up with the patient to ensure that he is utilizing all smoking cessation methods recommended to the best of his abilities.

References

- Chai, W., Zou, G., Shi, J. et al. (2018). Evaluation of the effectiveness of a WHO-5A model based comprehensive tobacco control program among migrant workers in Guangdong, China: a pilot study. *BMC Public Health* 18, 296. <https://doi.org/10.1186/s12889-018-5182-6>
- Duarte, P. M., Nogueira, C. F. P., Silva, S. M., Pannuti, C. M., Schey, K. C., & Miranda, T. S. (2021, February 27). Impact of Smoking Cessation on Periodontal Tissues. *International Dental Journal*, 72(1), 31-36. Retrieved October 22, 2022, from <https://www.sciencedirect.com/science/article/pii/S0020653921000356>
- Force, U. S. P. S. T. (2021, January 19). USPSTF RECOMMENDATION: Interventions for tobacco smoking cessation in adults. *JAMA*, 325(3), 265-279. Retrieved October 23, 2022, from <https://jamanetwork.com/journals/jama/fullarticle/2775287#:~:text=Physician%20advice%2C%20nurse%20advice%2C%20individual,increase%20cessation%20of%20cigarette%20smoking.>
- Jonathan B. Bricker, P. D. (2020, November 1). Efficacy of Smartphone Applications for Smoking Cessation. *JAMA Internal Medicine*, 180(11), 1472-1480. Retrieved October 22, 2022, from <https://jamanetwork.com/journals/jamainternalmedicine/article-abstract/2770816>
- Taylor G.M., Lindson N., Farley A., Leinberger-Jabari A., Sawyer K., Te Water Naudé R., Theodoulou A., King N., Burke C., Aveyard P., (2021). Smoking Cessation for Improving Mental Health. *The Cochrane Database of Systematic Reviews*, 3(3). Retrieved October 22, 2022, from <https://pubmed.ncbi.nlm.nih.gov/33687070/>
- Team, T. H. E. (2019, February 20). How stress may trigger smoking and how to effectively cope. *Healthline*. <https://www.healthline.com/health/heart-disease/stress-smoking#How-Smoking-Causes-Stress>
- Treloar, H. R., Piasecki, T. M., McCarthy, D. E., & Baker, T. B. (2014, September 1). Relations among caffeine consumption, smoking, smoking urge, and subjective smoking reinforcement in daily life. *Journal of caffeine research*. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4158991/>