

**STUDY ON IMPACT OF
NICOTINE
REPLACEMENT
THERAPY FOR
TOBACCO CESSATION
IN INDIA**

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BACKGROUND

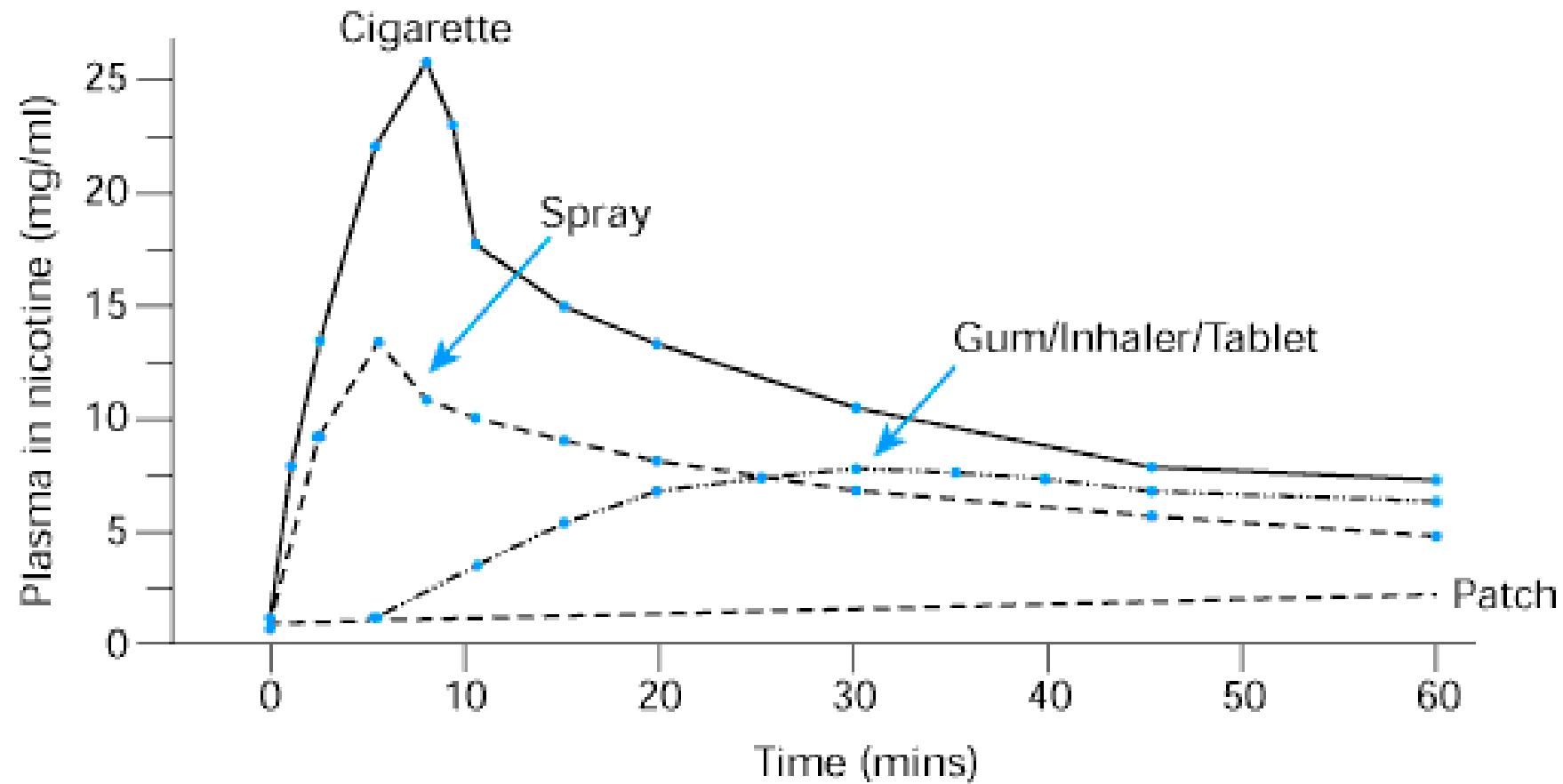
- According to GATS-2, 28.6% of Indian population are current smokers. Tobacco can be chewed or smoked in the forms of beedi-cigarettes.
- In India, smokeless tobacco is widely used. Tobacco kills more than seven million people each year in India. Over 6 million deaths are a consequence of direct consumption and others due to passive smoking. 25.9% adults use smokeless tobacco.
- Nicotine is the main active component of tobacco products and promotes behaviour in individual's tobacco addiction. Tobacco's other components are those which cause widespread death and disease.
- Nicotine is the most common alkaloid in tobacco smoke and the most important modulator of the psychopharmacological consequences of addiction.
- The evidence that nicotine replacement therapy (NRT) aids in quitting smoking is now widely established, and many healthcare guidelines suggest NRT as a first-line treatment for smokers seeking pharmacological assistance.

NICOTINE REPLACEMENT THERAPY

- Nicotine Patch
 - Nicotine Lozenges
 - Nicotine Gum
 - Nicotine Inhalers
-
- Provide nicotine to reduce withdrawal symptoms
 - Take between 1-4 hours to reach maximum blood levels (unlike cigarettes, 7 seconds)
 - Do not cause sudden boost to nicotine blood levels (prevents addiction to product)
 - Dose depends on habits of the smoker but is reduced over a 12-week period



NICOTINE DELIVERY



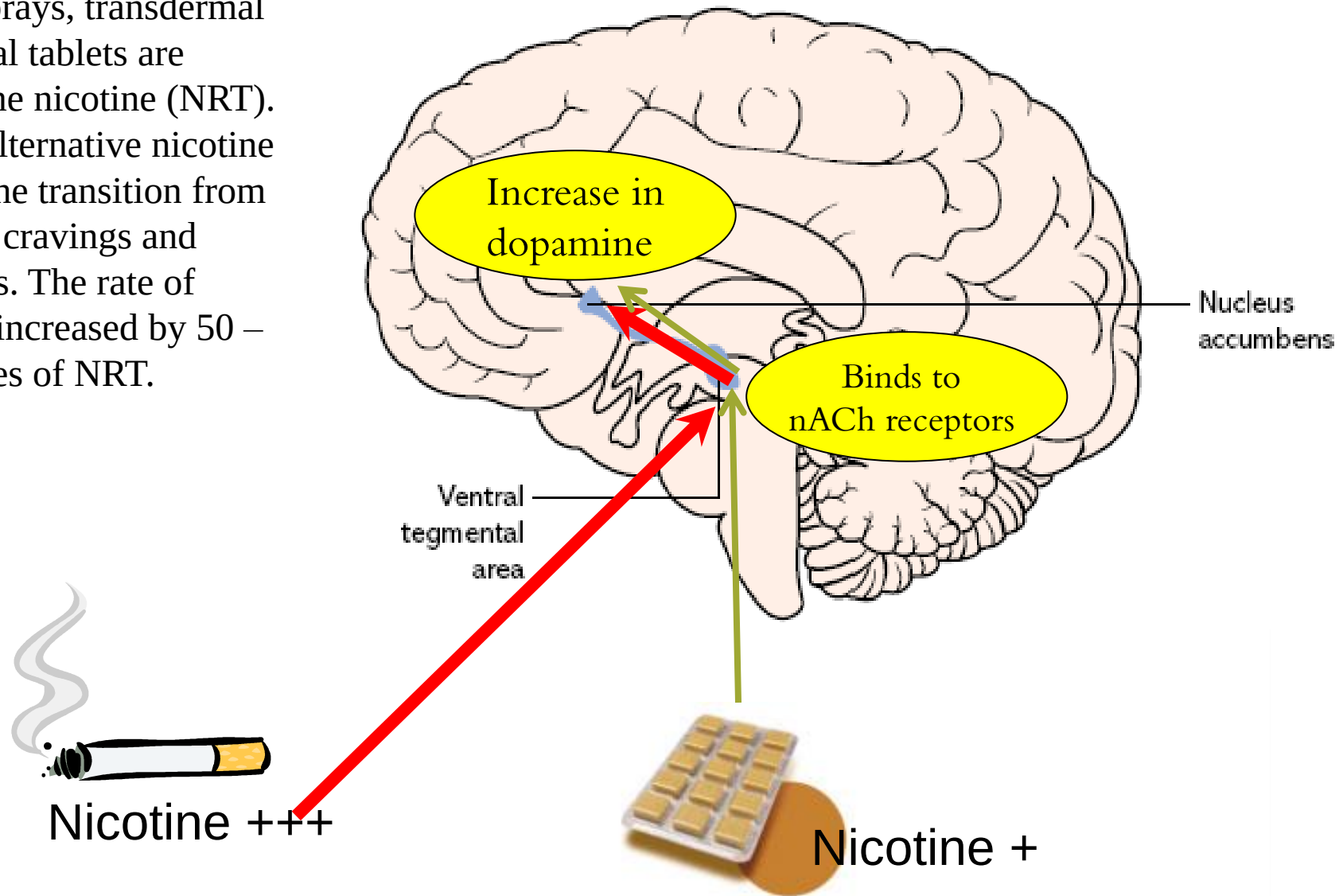
NICOTINE REPLACEMENT THERAPY

- Gum
 - 2mg and 4 mg dose
 - chewed and parked to allow mucosal absorption
 - 1 to 2 pieces per hour when used alone
 - can be used in conjunction with patch to treat sudden urges



Nicotine replacement therapy

A gum-form, nasal sprays, transdermal patches and sublingual tablets are available to replace the nicotine (NRT). The provision of an alternative nicotine source helps reduce the transition from smoking by reducing cravings and withdrawal symptoms. The rate of withdrawal has been increased by 50 – 70 percent for all types of NRT.



TOBACCO WITHDRAWAL SYNDROME

Signs & symptoms

Irritability

Depression

Restlessness

Poor concentration

Increased appetite

Sleep disturbance

Urges to smoke

Mouth Ulcers

Constipation

Duration

< 4 weeks

< 4 weeks

< 4 weeks

< 2 weeks

> 10 weeks

< 1 week

> 2 weeks

> 4 weeks

>4 weeks

Prevalence

50%

60%

60%

60%

70%

25%

70%

40%

17%

QUITTING BENEFITS

Cardiovascular and pulmonary benefits are immediate

Cancer risk lowered after a few years

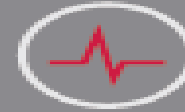
Reducing cigarettes not enough

Nicotine compensation

Stable nondaily pattern

How does your body recover after quitting...

20
minutes



Your heart rate and blood pressure drop.

12
hours



The carbon monoxide level in your blood drops to normal.

2-3
weeks months



Your circulation improves and your lung function increases.

1-9
months



Coughing and shortness of breath decrease; cilia start to regain normal function in the lungs, increasing the ability to handle mucus, clean the lungs, and reduce the risk of infection.

1
year



The excess risk of coronary heart disease is half that of a continuing smoker's.

5
years



Risk of cancer of the mouth, throat, esophagus, and bladder are cut in half. Cervical cancer risk falls to that of a non-smoker. Stroke risk can fall to that of a non-smoker after 2-5 years.

10
years



The risk of dying from lung cancer is about half that of a person who is still smoking. The risk of cancer of the larynx (voice box) and pancreas decreases.

15
years



The risk of coronary heart disease is that of a non-smoker's.

NICOTINE WITHDRAWAL EFFECTS

- Irritability/frustration/anger
- Anxiety
- Difficulty concentrating
- Restlessness/impatience
- Depressed mood/depression
- Insomnia
- Impaired performance
- Increased appetite/weight gain
- Cravings



METHODOLOGY

Research Question: What is the Impact of Nicotine Replacement Therapy for Tobacco Cessation in India?

Objective:

- To assess the impact of nicotine replacement therapy for quitting tobacco
- To understand consumer willingness towards quitting tobacco consumption

Study design: It will be descriptive study. It might include review of literature from previously published articles, government data, press releases and others.

Study population: Study will include smoking population of India which includes both male and females.

Duration of study: The study will be carried out for one month that is May and June of 2021.

Data Collection Type: The sampling technique used is convenient sampling. Secondary data from websites, articles and journals.

Data collection procedure: research conducted on secondary data basis.

RESULTS

- Nicotine replacement treatment (NRT) was proven to be far more effective than placebo or no NRT supporting people consuming tobacco in obtaining sobriety.
- Regardless of the fact that each type of preparation had a high relapse rate, the effect of using nicotine replacement treatment was proven throughout the period of 6-to-12-month follow-up period.
- Despite the fact that many of the trials included here did not specify exclude patients who had previously attempted and failed to quit smoking with NRT, only one investigation looked at the effectiveness of NRT (patch) in smokers who had relapsed after previous patch use.
- Even though there was no difference in whether or not they were using NRT, events linked with cardiovascular disease, such as an increase in the severity of angina, occurred in roughly 16 percent of patients. According to a study, there was no evidence of an increased risk of cardiac events in patients with cardiovascular disease”.
- “When nicotine patches were used, there was no evidence of an increase in adverse cardiovascular events, and the total number of such events was small, according to a review of 35 trials involving over 9,000 people . Concerns concerning the safety of NRT in smokers with heart disease have been raised .

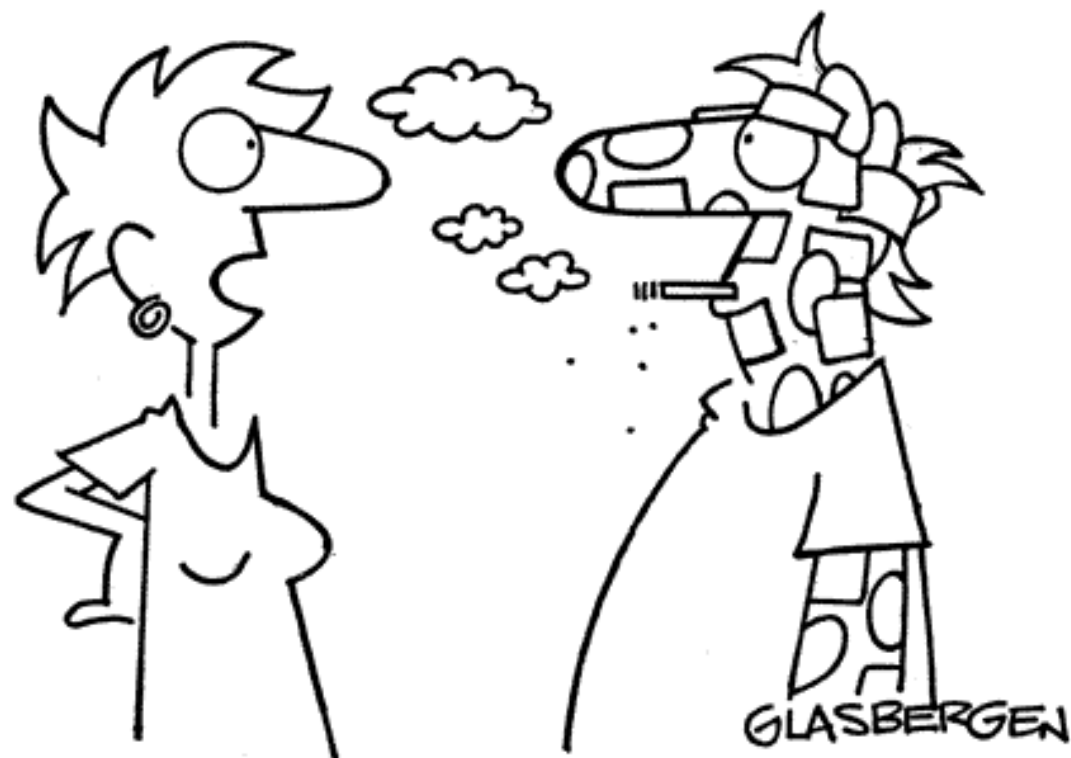
CONCLUSIONS

- The greatest major impediment to smoking cessation and long-term sobriety is nicotine addiction. Nicotine treatments come in a variety of forms, doses, and flavours, and they are advised for all tobacco users who do not have any medical contraindications.
- All commercially available types of NRT (gum, transdermal patch, nasal spray, inhaler, and sublingual tablets/lozenges) boost their odds of effectively quitting smoking, according to current studies. NRTs boost the likelihood of quitting by 50 to 70%.
- Nicotine gum has previously been shown to be beneficial to smokers who have a high level of nicotine dependence (Gourlay 1990; Lam 1987; Tang 1994). The 4 mg gum is substantially more helpful in these people than the lesser dose.
- In a direct comparison to non-nicotine pharmacotherapies, one big study (Jorenby 1999) found that bupropion is more successful than the nicotine patch. The use of both NRT and bupropion was not found to be any more effective than bupropion alone.

RECOMMENDATIONS

1. As part of a tobacco quitting approach, all commercially available forms of NRT (gum, transdermal patch, nasal spray, inhaler, and sublingual pill) are successful. Regardless of setting, they increase the chances of long-term quitting by 1.5 to 2 times.
2. NRT should be addressed primarily to smokers who are motivated to quit (as evidenced by their willingness to seek help) and who have a high level of nicotine dependence.
3. There is limited evidence that NRT is effective for people who smoke less than 10 to 15 cigarettes per day.
4. Patient needs, tolerance, and economic considerations should all be taken into account when deciding which type to utilise. Patches are anticipated to be easier to employ in primary care settings than gum or nasal spray.

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“If patches don’t work for you, try something else!”