

Efficacy of nasal stimulants on interpersonal communication – a narrative review

C.C. CINGI¹, D. EROGLU²

¹Communication Design and Management Department, Faculty of Communication Sciences, Anadolu University, Eskisehir, Turkey

²Department of Foreign Languages, School of Foreign Languages, Anadolu University, Eskişehir, Turkey

Abstract. The aim of this paper is to review the use of nasal stimulants in interpersonal communication. The literature survey was performed from PubMed, ProQuest Central database of Anadolu University, and Google Scholar.

Throughout history, various materials have been used as nasal stimulants to communicate and socialize intensively. *Snuff* is tobacco inhaled into the nostrils. It goes through the nasal mucosa into the blood and affects the neural system. Maras Powder is also a smokeless tobacco type common in the southeast of Turkey, especially in Gaziantep and Maras, which gave its name to the product. Cocaine is made from the coca plant, and it can be in the form of powder and rock. The rock one is also known as crack. It passes through the nostrils and is absorbed in the blood, causing paranoia, sleeplessness, extreme energy, and more confidence. When oxytocin is said, some positive words come to mind, such as socializing, relationships, feeling of trust, and understanding. It is a hormone and neurotransmitter.

Increasing interpersonal communication in the shortest time is an important issue today. Online meetings, the ability of different people to work on the same file simultaneously over the computer, cause individuals to distance themselves from each other and decrease communication among them. Despite being in the same social environment, friends often communicate with others with their smartphones instead of having face-to-face relations. To increase interpersonal communication experience, events involving alcohol take is the mostly commonly used one. Nasal *snuff*, cocaine, crack, and oxytocin abolish self-control which affects interpersonal communication negatively at the end of the day.

Key Words:

Nasal stimulants, Snuff, Maras powder, Cocaine, Crack.

Introduction

Throughout history, people have enjoyed smelling aromas and balms and decorated their living spaces with scents. Looking back at the ancient

times, from the Ancient Egypt period to the Ottoman Empire, people strived for feeling good smells from the palaces and to do that fragrant plants were planted in the gardens, fragrant flowers were placed in the houses, and incenses were used. Since it was noticed that some substances were pleasing, people met in small groups and got closer sniffing various nasally ingested substances *via* which they had a chance to communicate and socialize intensively. In addition to these innocent-smelling plants, basal stimulants containing defined active substances were also used. Many studies¹⁻³ have been conducted about the efficacy of nasal amphetamine, cocaine, and capsaicin, as well as the side effects of these active ingredients. The main effect of alcohol, recreational drugs, and narcotic substances is that they reduce the self-control of the user and even make them out of control with higher doses. The simplest example is that people who drink alcohol have a more comfortable conversation and share their problems they would not usually do while consuming alcohol. “Raki table” is a concept where friends gather and chat while drinking raki and eating mezes. All mezes are to share on this table just like the personal thoughts and problems. It is an important communication and sharing event in Turkey where friends share their problems and seek solutions together. Bearing in mind that nobody can be assertive to say that it is the thing that should be done but it is reported that this kind of an experience might reduce the need to see a consultant⁴.

Some characteristics of personality might be inherited and the whole is affected by the experiences and education, but the effect of alcohol on the attitudes and behaviors is also a matter of discussion.

Observing the attitudes of a person who has consumed alcohol one might observe the conduct disorder and personality split of that person.

In some cases, some people pretend as if everybody in their circle loves them and after hav-

ing alcohol their personas fades and the true feelings come out. In time, these two totally different ways of perception cause personality split. Here the question is when avoiding alcohol with medical and psychological support, will those problems related to personality also be solved? When a person gets strict, hardhearted, indelicate, and ungrateful after having alcohol, will all those unseemly acts vanish just because he gives up having alcohol? How far can a person go on the way of the change? Think of a person who is seen as tense, stiff, drawn, uneasy and resentful when drinking alcohol, to what extent those characteristics can change with the treatment? Will that person be a totally different one with kindness and a soft heart? What is expected regarding personality change after psychotherapy?

Snuff

Snuff is a tobacco inhaled into the nostrils. It goes through the nasal mucosa into the blood and affects the neural system. Just like the use of cocaine it follows the same route, but its physiological impact is different. Two hundred or more years ago the use of it became common in Europe⁵. It was packed in special boxes which revealed the class of the user according to the material of the box. It was easy to get and used more by Ottomans after IV. Murat banned smoking as this product was smokeless¹. Then in time, its use lost its popularity until recently the young generation have started to make it popular again. Interestingly enough, it first started to be used in France like cigarettes^{5,6}. In the past, smoking was only for the elderly and it was common on special days like rituals and weddings, but in time it became the most important product of the trade and use of it became more and more common. Even the poor and homeless people looked for butts thrown away. It also found its way to reach Ottoman lands. It was not only tobacco then, but also many other substances were added to the ingredients which affect its smell as well^{5,6}.

Maras Powder

Maras Powder is also a smokeless tobacco type common in southeast of Turkey, especially in Gaziantep and Maras, which gave its name to the product. It is made with *Nicotiana rustica* L and ashes of oak tree or wood of grape⁷. There

has been no study of the relationship between muciliary clearance and Maras powder, a smokeless tobacco product. The sedation efficacy of this powder is not that strong. Therefore, it is difficult to say that using Maras powder will alter the ability to communicate. However, it will increase the level of communication by decreasing the self-control of each person.

In Southeast Anatolia, the life conditions are much more complex than in the other regions of Turkey⁷. That could be a reason why people seek for ways to feel better and forget about the difficulties of their hectic lives. Producing wine and use of Maras powder are among those ways. They do not aim to improve their communication skills specifically, however, in such occasions like drinking wine and smoking Maras together help them share their problems and thoughts freely, which improves communication frankness automatically.

Cocaine and Crack

Cocaine is made with coca plant and it can be in the form of powder and rock. The rock one is also known as crack. It passes through nostrils and absorbed in blood causing paranoia, sleeplessness, extreme energy and more confidence. First it releases dopamine then extreme depression comes. With the crack form similar effects are seen as well⁸⁻¹⁰.

Nasal Oxytocin

When oxytocin is said, some positive words come to mind, such as socializing, relationship, feeling of trust, understanding and so on. It is a hormone and neurotransmitter^{8,9}.

Schneiderman et al⁹ state that Oxytocin is a neuropeptide which has a vitally important role in any kind of bonding including pair bonding and it affects prosocial behaviors. Healthy social relations are important in order to have healthy body and mind. Animal experiments to understand the role of oxytocin in bonding between pairs led the way. Numerous studies⁸⁻¹⁰ in humans and animals have revealed that oxytocin plays a role in social behaviors. It has been found that the release of oxytocin in the brain is stimulated by touch, romantic relations, fragrances and music. Those parental and romantic bonding share underlying bio-behavioral mechanisms. Most of the reports

related to intranasal application of oxytocin claim that it has a huge behavioral effect⁸⁻¹⁰. It is also reported that it cannot reach the cerebrospinal fluid even the amount applied is huge⁹.

It is worth noting that peripheral concentrations are elevated to supraphysiological levels, with possible effects on a variety of targets such as the gastrointestinal tract, heart, and reproductive system. There seems to be a desire to develop a positive attitude towards the effectiveness of intranasal oxytocin, but this should be approached with skepticism and meticulousness.

Pre-registration of studies, advance notification of primary and secondary results, determination of statistical methods that will be applied, and making all data accessible will minimize the problems of publication bias and questionable post hoc analyses¹⁰.

Appropriate dose-response studies will help to check the effects of intranasal oxytocin, which is urgently required and such studies require to involve control groups for peripheral effects *via* administering oxytocin peripherally and blocking peripheral effects with antagonists. Some studies^{9,10} show that the nasal use of OT elevates the ability of empathy for males and sexual desire for females. Though how effective it is and the proper doses are not known precisely, the above effects are mentioned in many publications^{9,10}. It is known that these drugs are widely used and they are believed to strengthen bonds which help better communication and increase interpersonal relations in a short time⁸.

Communication skills are mostly important for the individuals to have inner communication for self-actualization and they boost the feeling of empathy and self-control. The people with better skills are able to control their feelings and behaviors as well as other things, such as making better decisions and managing their emotions. Self-control is like controlling the whole world and it enriches the inner person or interpersonal communication. Self-control is like a kind of intelligence which allows people to adapt the reaction for an action. It is not only regulating the reactions, but also managing the emotions like nervousness, anger, satisfaction or desires¹¹.

People knowing how to manage themselves have effective communication acts verbally and non-verbally which enables them to have healthy relations and deep and rooted bonds. These all show how healthy an individual is mentally because having that balance in these stressful conditions is not an easy game to play⁹. Regulating

emotions is even harder because most of the reactions bear emotions biologically out of control and it is the responsibility or capability of the person to regulate them. The good news is that once a person knows how to take the control of the emotions then life itself gets less challenging or despite the challenges he or she will still be satisfied as the strongly found relations *via* strong communication will wash away the impacts of stressful life events⁹.

Therefore, it can be stated that the presence of the components in the training of self-control and communication skills, especially communication skills, should influence social interactions, leading to increased emotional regulation. This self-control ability requires awareness and practice well to progress gradually in interpersonal communication. To speed up interpersonal communication improvement, learning to self-control will help¹¹ which will bring better social satisfaction.

Conclusions

Increasing interpersonal communication in the shortest time is an important issue today. Online meetings, the ability of different people to work on the same file simultaneously over the computer, cause individuals to distance themselves from each other and decrease communication among them. Despite being in the same social environment, friends often communicate with others with their smartphones instead of having face to face relations. To increase interpersonal communication, mostly commonly events involving alcohol beverages are preferred. Nasal snuff, cocaine, crack, and oxytocin abolish self-control which affects interpersonal communication negatively at the end of the day.

Conflict of Interest

The authors declare that they do not have any conflict of interest.

Authors' Contribution

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ORCID ID

Can Cemal Cingi: 0000-0002-1769-3435
Dilek Eroglu: 0000-0002-1760-6127

Ethics Approval

Ethics Approval is not needed as this study is a narrative analysis.

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