

Correlation of Mental Health, Body Constitution, Cytotoxicity and Chewing Arecanut and Tobacco Related Products

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Use of tobacco and arecanut related products are rampant all over the world. Few of those are mava which is mixture of arecanut, tobacco and lime another is panmasala which is made by companies using arecanut. People are also addicted to consuming arecanut and tobacco alone.

Here we have made an attempt to study the mental health status of these addicted people with the help of DASS scale. Along with this we have taken into consideration their prakrati which means one's body constitution. Prakrati is a key feature in Ayurveda. In order to study cytotoxicity in these chewers we had collected buccal cells of the same individual.

Result: Our result showed Prevalence of depression, anxiety and stress in non-chewers was less as compared to that of chewers. In addition, chewers were classified according to their chewing habits into arecanut, tobacco, panmasala, mava and their analysis will be discussed further. On evaluating their prakrati it was observed that 61% of non-chewers fall into a balanced dosha and only 20% of the chewers had balanced dosha. Chewers (58%) showed vaat and pitt prakrati, 14% showed pitt and kaaf type of prakrati and only 8% showed vaat and kaaf prakrati. There was a significant difference (χ^2 ; p value: 31.09; 0.0001) found between both groups. The other study showed significant difference in cytotoxicity of all the products consumed by people i.e. mava, tobacco, panmasala and arecanut. Mava chewers showed the highest anomalies in buccal cells. This may be due to physical damage caused by arecanut and chemical exothermic reaction due to the presence of lime, these two processes go hand in hand which could be a potent reason.

Conclusion: Our results showed that prakrati and mental status along with addiction is directly correlated. The disequilibrium doshas could be one of the reasons for developing mental health problems and might have led to addiction and rehab centers should consider prakrati aspect in their treatment. Chemical ingredients in Panmasala should be looked into as a high number of anomalies signifies the presence of some toxic or carcinogenic compounds which causes damage to mucosal cells, so government should take strong steps towards and look forward to analyze, assess the chemical composition of the product also should educate the companies to re-modify their composition.

Biography:

Currently working as Ph.D. Research Scholar (SRF) from Zoology Department, School of Sciences, Gujarat University.

Awards and prize:

- Was awarded Sumer research Fellowship Program, sponsored by IASc (Bangalore), INSA (New Delhi) and NASI (Allahabad).
- Second Prize winner in National Conference on "Frontiers and Avenues in the field of Herbal Drug Research" organized by L.M college of Pharmacy, Ahmedabad. Abstract was entitled "amelioration of lead induced toxicity by curcumin and *In vitro* study".
- Won Second Prize in National Conference on "Basic Sciences as Foundation of Applied Sciences and Technology" Conducted by Bhavnagar University. Abstract was entitled "Statistical and analytical data of cancer patients reported in Bhavnagar District".
- Won third prize in poster presentation in seminar on "Cancer: From biologist's Perspective" Abstract was entitled "Role of Nano technology in changing trend of cancer cure".