



## Dr. Shashwat Saxena

MBBS, MD (KGMU),  
Consultant Psychiatrist, Lucknow.

# Pollution leads to clouded mood and memory: Take precautions-seek help



With the rising pollution levels in various cities of country and Delhi already crowned as most polluted city of the world the likely hood that winters would worsen COVID and breathing problems is obvious and being feared. However, the effect of air pollution and smog on mental health is less talked about. Air pollution can have lasting impact on mental health ranging from anxiety, low mood to irritability and poor memory. Research has shown one standard deviation rise in particulate matter (PM) levels increases likelihood of depression by upto 7% whereas every 10 microgm/cum increase in Nitric Oxide doubles rate the of depression. SMOG (smoke and fog) which haunts various North Indian cities is known to make residents anxious as it leads to inflammation in respiratory tract which causes decreased oxygen supply to brain and thus leading to anxiety. Results from US research group have also suggested air pollution can not only effect cognitive development of children but can lead to memory problems and cognitive decline in elderly whereas experience of smog effects on mental health in China have shown people being more irritable and anxious.

The mental health issues are highest with those already having respiratory or cardiac problems. Asthmatic and COPD patients start fearing worsening of their cardio-respiratory symptoms so much in impending polluted months that they may experience anxiety and panic before the actual problem of asthmatic attack sets in. Anxiety and mental health issues on themselves too increase shallow breathing and worsen asthmatic attacks. Hence worsened mental health due to air pollution is due to direct effect of pollutants on brain as well as due to effect of air pollution on cardio-respiratory tract resulting in mental health issues resulting in a vicious circle.

All these evidences have endorsed the need to take collaborative effort to reduce the lasting effect of air

pollution on mental health. Individually we must take all measure to reduce exposure to smog by staying at home, avoiding severely polluted areas and should wear N95/99 where-ever possible. Smoking should be avoided and if it's getting difficult to cut down on cigarettes it indicates possible addiction, appropriate psychological help for which should be taken. Exercises in open, like cycling or running should be avoided rather yoga particularly pranayama could be useful in mitigating pollution effect. Use of air purifiers, wherever possible and affordable, should be started. Awareness campaigns must be run by government and agencies to sensitise people about harmful effects of air pollution on mental health too. Mental health problems are treatable and their proper management not only improves mental wellbeing but also has positive effect on physical parameters.

All efforts should be made to de-stigmatise treatment of anxiety and depression so that people take help earlier in the course of mental health problems which greatly reduces the suffering and need of long duration of psychiatric treatment.

Otherwise, in years to come we may be more industrialised and richer but would not be able to enjoy the riches due to low mood or may be totally apathetic to the development around as we would have forgotten things due cognitive decline.