Psychological Evaluation and Comparison of Alcohol and Marijuana users’ w.r.t Violence (Adult)

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Abstract

Marijuana and Alcohol both are psychological drugs. There are evidences and studies where it proves intake of these drugs can result in various criminal activities. And despite both having psychological affects one is legal (alcohol) whereas other is not (marijuana). There are many research and review article regarding alcohol and marijuana, in relation to violence but very less work done on comparing both side by side with respect to the personality traits of user. Thus review paper helps other researchers, model creator and policy makers in regard to legalization of both marijuana and alcohol and their effects.

Keywords: Marijuana, alcohol, Personality trait.

Introduction

Criminal psychology is a branch of psychology and deals with the study of thought, intention, action and reaction of criminal and other that partake in criminal behavior.¹ Through studying someone’s personality traits we can predict his behavior and his criminal tendency.¹,² It helps in determining one’s future regarding his violent behavior and how to work on them, in order to become a civilized man rather than a criminal in upcoming future.

In crime, both marijuana and alcohol are found to be the most common drug used before doing the crime either intentionally or unintentionally.²,³,⁴ As both drugs psychologically effects the body thus make brain senses and motor functions numb, therefore being effective to suppress feeling or emotion before committing crime.³ In case of alcohol it is found prominent that with increase in consumption violence also increases exponentially.⁴

Marijuana also known as ganja, cannabis, pot, weed and grass as its street names, and intake can be done through smoking (or mixed with tobacco), as edibles, by vaporizing or as an extract. It has psychoactive properties due to its main component tetrahydrocannabinol (THC), one of 483 known compounds in it, including at least 65 cannabinoids, mainly CBD. Due to high lipid solubility nature of its cannabinoids, it remains present on the body for
a long period of time (can stay for months). Even after a single use of marijuana, it can be detected for weeks after its use. For this reason, some researchers and scientists claim it is the reason for marijuana ill effect (on chronic use) as it may accumulated in lipid membrane of the neuron. Marijuana has both short- and long-term effects on body.[5] Short term effects include anxiety, panic, dry mouth, red eyes and feeling of paranoia. It also has physical short term effects, like increase in heart rate, difficulty in breathing and nausea. Long term adverse effects chronic coughing, more probability to get respiratory infection and can decrease mental ability for those who abuse it regularly before brain is fully developed (i.e before age of 23 year).[5]

Alcohol also known by its chemical name ethanol. Alcohol is a depressant i.e. after consumption the vital organs are slowed down, resulting in slurred speech, euphoria, delusion, loss of body control, etc The effects of alcohol is dependent upon the quantity you intake.[6] Their intoxication can be deadly, above 0.35% of BAC (Blood Alcohol Consumption) can put you in coma and above 0.45% result in death.[6,7] The alcohol use results in various behavioral changes including cognitive impairments, tolerant power, incoordination of motor functions and dependency. On Consumption it targets our Central nervous system (CNS), most likely the GABA (gamma amino butyric acid) receptor in brain.[8] Alcohol enhances GABA receptor function which causes effects like sedation, hypnosis, anesthesia and anxiousness. And at concentration it can change the lipid composition present in surrounding membrane.[8,12]

Alcohol also has both long and short term effects on body, these effects can be adverse in nature. Short term effects are dizziness, vomiting, hangover, visual impairments, motor function impairments, headache, nausea and neurocognitive function impairment, as alcohol is addictive and increases tolerance on use which can result in dependency and lead to ultimately long-term effect such as liver damage, brain damage and cancer (breast, pancreatic cancer etc.).[9,10]

Neo Big-V personality assessment test is a test which divides personality of people in 5 different traits. These 5 traits help in determining the person personality i.e his character and their behavior.[14] As Personality traits are directly and indirectly related to the physical aggression and violent tendency. [11,12]

The five broad traits are

1. Extraversion: Represent sociability of the individual.
2. Agreeableness: Show characteristics like friendly, trusting, affection and compassion.
3. Openness: Deal with person imagination and his insight
4. Conscientiousness: Include characteristics like organized, thorough and methodic.

Material and Methodology

Sample Collection

Sample were collected through Big NEO- V questionnaire having 60 questions with average 15 minute response time. Total 17 sample (2 female, 15 male) is collected for marijuana and 20 (6 female & 14 male) for Alcohol Analysis and Comparison

The data is analyzed mainly focusing on 3 traits, namely Conscientiousness, Neuroticism and Agreeableness as they are responsible for the behavior and help successfully predicting violent nature. The mean is calculated for each trait and then compared side by side to find significant difference between Alcohol and marijuana users behavior.

Discussion

To study the affects of marijuana and alcohol on the violence, we used Big NEO- 5 test questionnaire which includes 60 questions. Each question have 5 response to opt i.e. strongly disagree, Disagree, Neutral, Agree and strongly agree. All the individual are asked to fill the form honestly. The questionnaire is distinguished through the drug they take.

The 60 questions are related to the personality of the individual having 5 major traits, 12 question per trait. All these question arranged in such a manner so no one can repeat themselves.

For the study we concentrated on 3 traits,
Neuroticism, Agreeableness and Conscientiousness.
As these 3 traits are directly related to anti-social behavior and aggression which lead to violence.[15]

Table 1. Time interval of drug intake

<table>
<thead>
<tr>
<th>Intervals</th>
<th>Marijuana</th>
<th>Alcohol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>3-7 days</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>2 weeks</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 2. Comparison between marijuana and alcohol user (Personality traits)

<table>
<thead>
<tr>
<th>Traits</th>
<th>Marijuana (mean)</th>
<th>Alcohol (mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neuroticism</td>
<td>0.43</td>
<td>0.58</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>0.56</td>
<td>0.57</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>0.60</td>
<td>0.62</td>
</tr>
</tbody>
</table>

Conclusion and Future Prospect

In our study after analysing and comparing the data these findings are concluded

1. Both the user score similar in Agreeableness trait, alcohol- 0.57, marijuana- 0.56.
2. Both user score similar in Conscientiousness trait, Alcohol- 0.62, marijuana- 0.60.
3. However in Neuroticism trait alcohol user score big which is alarming at 0.58 in comparison to marijuana 0.43.

The Neuroticism in criticized as alarming in alcohol because in many finding it is directly related to violence. High score indicate these individuals get stressed easily, feel insecure and in pressure situation can do violent activities as they are emotionally unstable (can’t handle emotions).

Ethical clearance: For this study, questionnaire were filled by the proper consent of individuals.

Source of funding: Self
Conflict of Interest: Nil

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