The Impacts of Marijuana Use on the Youth in Ghana
A Case Study of Sabon Zongo Community, Ghana

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Abstract

Marijuana use is prevalent among the youth in Ghana today. With reference to Today News (2014), the Narcotic Control Board indicated that out of a total number of 50,000 drug users, 35,000 are youth spanning from junior, secondary and tertiary institutions. This study examines the impact of marijuana use among the youth of Sabon Zongo Community in Ghana and the reasons that influence them to use the drug. These objectives were met by handing out questionnaires to 150 out of which 132 gave their consent and answered them. The study also paid attention to thematic areas that are replete in the existing literature concerning the use of marijuana and its effects on users including the impacts of marijuana use and the reasons given.

Data collected was organized using Excel spreadsheet, Statistical Package for Social Sciences (SPSS) software and analysed with Descriptive Statistics and Pearson’s Chi-Square. Results and discussions from this study revealed that physical impacts and the gateway phenomenon had dependent relationships with marijuana use. As a result, an educational campaign on the negative impacts of marijuana use on physical health and being potentially a gateway to using harder drugs using a multi-sectorial approach is recommended to reduce if not to eliminate the use of marijuana among the youth in Ghana.

Keywords: Marijuana, impact of marijuana use, Gateway phenomenon, marijuana use among the youth of Ghana, physical, psychosocial, economic effects of marijuana use.

Introduction

Abuse of and addiction to narcotic drugs is a canker of social problems in many countries today. It is not the ingestion of narcotic drugs that is the problem but for their addiction that makes many governments pay attention to the laws that oversee their cultivation, distribution and use. Addiction to narcotic drugs has many consequences on individuals and the societies in which they live. Some of these include mental and physical illness as well as violent behaviour that facilitates crime and unproductivity at work. Marijuana is one such narcotic drug that poses the forenamed threats to individuals and societies. According to the Report on Global Illicit Markets 1998-2007 (2009), as at 2007, the drug was produced in over 170 countries ranging from wealthy to developing countries and its market was continually receiving new entrants. Currently marijuana is considered by the World Health Organization (2015) to be the most widely cultivated, trafficked and abused illicit drug worldwide. In Ghana, mental health facility reports as well as police reports have attested to the fact that marijuana is chief among the narcotic drugs that account for a majority of psychiatric cases and drug law offences. Much attention has been paid to sanctioning users in Ghana since the country’s adoption of the Single Convention on Narcotic Drugs of 1961.

Background of the study

The word “Marijuana” also called weed, herb, grass, bud, ganja, Mary Jane, among others refers to a greenish-grey mixture of the dried flowers of the Cannabis sativa plant. Some people smoke marijuana in hand-rolled cigarettes called joints; in pipes, water pipe (sometimes called bongs), or in blunts (marijuana rolled in cigar wraps). In some sects, marijuana can also be used to brew tea and especially when it is sold or consumed for medicinal reasons, is then mixed with foods such as candies cookies etc. as cited in National Institute on Drug Abuse-(NIDA, 2018).
History of cannabis in Ghana

Marijuana is reported by the Ghanaian Chronicle (2011) to be popularly referred to as “ganja”, “ntaampi”, “abonsam tawa” and “wee” among citizens of the country. War veterans who had fought in Asia during the Second World War introduced marijuana to Ghana, as is asserted by Acheampong (2005).

Drug policies in Ghana

Benavie, A., (2009) brings to light the perception that marijuana is a gateway drug to more potent drugs such as heroin and cocaine and how acting on that perception, there have been many interventions worldwide to curb or regulate its use. According to the International Narcotics Control Strategy Report (2012), the nation is a signatory to the 1988 UN Drug Convention, the 1971 UN Convention on Psychotropic Substances and the 1961 UN Single Convention as amended by the 1972 Protocol. These conventions effect the criminalization of marijuana cultivation, distribution, use and all public actions that incite others to do same.

Marijuana use among students in Ghana

According to Webb et al (1996), in the United Kingdom, university students appear to have a high likelihood of experimenting with illicit drugs such as marijuana. Studies by these researchers on drug use among students in United Kingdom universities have shown levels of illicit drug use that exceed those of the general population. Generally, in Ghana, some high school students find themselves experimenting with narcotic drugs. The Ministry of Health / World Health Organization (2003) asserted that the mean age of first use of narcotic substances including cannabis ranged between 14 to 19 years (the age group of most high school students) in Ghana.

Problem statement

In Ghana, marijuana; as commonly referred to as “wee” consistently has been one of the most commonly used illicit substance each year with particularly high rates of use among young individuals. However, the effects of a drug (legal or illegal) on an individual’s health are determined not only by its pharmacologic properties but also by its availability and social acceptability.

Research questions

The question that this research effort seeks to address is,

1. What are the impacts of Marijuana use among the youth in Ghana?
2. What are the varied reasons why the youth use marijuana?
3. Is there any relationship between Marijuana Users and its impacts?

Aim of the research

Through a survey of marijuana users of Sabon Zongo Community, this research aims at identifying the various impacts of using marijuana and make recommendations in educational programmes among the youth in Sabon Zongo and the country at large.

Objectives of the study

The broad objective of this study is to assess the impact of Marijuana use among the youth in Ghana.

Specific objectives

1. To find out the reasons why the youth (adolescents) use marijuana.
2. To assess the impacts on the use of marijuana to the youth.
3. To find out if there are any relationships between marijuana use and economic, psychosocial, physical and the Gateway phenomenon.
4. To make recommendations aimed at reducing the use of marijuana among the youth.
Significance and justification of the study

The justification of this study lies in its intention to highlight marijuana use via the estimation of the marginal adverse effects on health and safety among the youth. The significance of this study will demonstrate local relevance and then elevate marijuana use and its effect among the youth for policy documentation which will in turn help to create appropriate interventions.

Organisation of the study

The study will be organized in five chapters, chapter one focuses on the introduction and the background of the study. Chapter two will consist of literature review, both theoretically and empirically. Chapter three will be the theoretical framework and methodology section of the study, presentation and discussion of results will constitute the fourth chapter of the study. Finally, the fifth chapter comprises summary, conclusion and possible recommendations.

Literature review

Introduction

This chapter provides a detailed discussion of the main concepts surrounding the research topic to establish a good background for the study as well as the current state of marijuana use in Ghana. It describes what marijuana is, its pharmacological components and the manner through which its effects are felt physically, socially, psychologically and health wise.

Overview of marijuana

The word “Marijuana” also called weed, herb, ganja or “ntampi” as referred to in Ghanaian local parlance is a greenish-grey mixture of the dried flowers of the Cannabis sativa plant as stated by (Malhotra & Biswas, 2006). Iversen (2000) marijuana is a luxuriant fast-growing annual plant, which can attain maturity in just three to five months when grown outdoors and two months when grown indoors under optimum temperature and light.

Ghana’s law on marijuana use

Goode, (2012) in a research stated that an individual engaged in a drug transaction, or who is in possession of a quantity of an illegal substance and is apprehended by the police, may be arrested, prosecuted, convicted, and imprisoned. In Ghana, the Narcotic Drugs (Control, Enforcement and Sanctions) Law, 1990 (PNDCL 236) prescribes a sentence of not less than 10 years each for the cultivation, possession, distribution or importation of cannabis.

Pharmacology of marijuana

The main psychoactive ingredient found in Marijuana as mentioned in a research work by Iversen, (2009) is delta-9-tetrahydrocannabinol (THC) which is responsible for its effect on mental processes. World Drug Report, (2011) also reported the flowering top and leaves as the main parts of the marijuana plant that has THC.

Modes of marijuana ingestion

According to Drug Policy Alliance, a research made into the media through which marijuana is consumed stated in their publication that, there are four main possible ways of ingesting marijuana. They broadly categorize it into: inhalation, oral, sublingual and topical.

Inhalation of marijuana

Inhalation is the most preferred and fastest method of using marijuana. When a user inhales marijuana, the majority of cannabinoids found in marijuana enters the body through the lungs where they are passed along directly into the users’ blood stream delivering an instantaneous effect to the user.

Oral use of marijuana

Oral ingestion of marijuana can be in the form of edibles, tinctures, capsules or oils.
Sublingual use of marijuana

Under the tongue lies vast number of blood vessels which has the capacity to absorb cannabinoids, a compound found in Marijuana, so some users may prefer this route.

Topical use of marijuana

The final way to consume marijuana is through topical applications. These come in the form of lotions, salves, bath salts and oils that are applied to the skin.

Theoretical framework

The study used two key theories to further investigate the impacts of marijuana use; the Problem-Behaviour theory and the Gateway Phenomenon theory

The problem-behaviour theory

Problem-Behaviour Theory was developed by Richard and Shirley Jesser almost 30 years ago.

The gateway drug theory

The "gateway drug theory" describes the phenomenon in which an introduction to drug-using behaviour through the use of tobacco, alcohol, or marijuana is related to subsequent use of other illicit drugs. The theory suggests that, all other things being equal, an adolescent who uses any one drug is more likely to use another drug.

Pistis et al., (2004) in their study revealed that early exposure to cannabinoids in adolescent rodents abates the reactivity of brain dopamine reward canter later in adulthood

Impacts of marijuana use

The consequences of marijuana from extended use are mainly caused by the presence of chemical compounds found in the cannabis sativa plant which includes cannabinoids, such as tetrahydrocannabinol (THC), which is only one of more than 100 different cannabinoids plants.

Physical effect of marijuana use

Smoking marijuana has been found to increase the risk of airflow obstruction, bronchitis, and airway injury such as oedema, Tashkin, et al, (2002).

Health effect of marijuana use

Marijuana use has also been linked to other mental health problems, and suicidal thoughts among teens, National Survey on Drug Use and Health, (2015).

Psychological effects of marijuana use

Torales et al., (2017) in their showed a possible link between marijuana use and the development of psychotic disorders. They found nearly a 50% increased risk of psychosis among marijuana users when compared to that of nonusers.

Psychosocial effects of marijuana use

Recreational marijuana use has been found to impact negatively on psychosocial outcomes. Palamar et al., (2014).

Economic effects of marijuana use

Many researchers throughout the world have continued to investigate the effects of long-term marijuana use. One aspect that academicians and clinicians are looking into is the economic standing of people who have used marijuana for a period of time.

Reasons for marijuana use

According to Verweij et al., (2010), “because marijuana use is associated with social, physical and psychological problems, it is important to know what causes some individuals to initiate marijuana use and a subset of those to become problematic users”.

4
Marijuana as an anthelmintic use

In non-human animals, including many vertebrate, mammalian, and primate species, there is increasing evidence that consumption of toxic plants is a form of self-medication against pathogens (Forbey et al., 2009; Huffman, 1997; Suarez-Rodriguez et al., 2013; Villalba et al., 2014; Wrangham and Nishida, 1983).

Marijuana as an appetite booster

The use of marijuana has been linked to the boosting of appetite. Thus the feeling of increased appetite following the use of marijuana has been documented for hundreds of years and is known colloquially as "the munchies" in the English-speaking world as presented by, Chakravarti, Ravi, & Ganju, (2014).

Personal propensities to use marijuana

Ausubel (1980) draws attention to individuals who are more liable to drug addiction than others due to personal traits they possess or experiences they have had. Conner and McMillan (1999) define self-identity as “the salient part of an actor’s self which relates to a particular behaviour”.

Availability and opportunity

Availability is a key factor when it comes to marijuana use in young adults. Unfortunately for a growing number of today’s young adults, obtaining marijuana is becoming even easier, as more states make it legal for medical and recreational use.

Chapter summary of the impacts of marijuana use

Marijuana is a widely used illicit drug among adolescents, many of whom perceive little risk from marijuana. Marijuana use is associated with poor academic performance and increased school drop-outs. It is also associated with high-risk behaviours in adolescents.

Conceptual framework of marijuana use and it’s impacts
Methodology

Introduction

This chapter clearly defines the research methods used to conduct the study. Here, the researcher explains how the necessary data and information to address the research objectives and questions were collected, presented and analysed.

Research design

Heppner et al (2008) describes a research design as a plan or structure for an investigation or a list of specifications and procedure for conducting and controlling a research project.

Descriptive research design

Saunders, Lewis, & Thornhill, (2009), defines the descriptive survey method as one which looks with intense accuracy at the phenomena of the moment and then describes precisely what the researcher sees.

Justification

Conducting the interviews

Face to face interviews were carried out at Sabon Zongo community with key respondents being both users and non-users of marijuana. All interviews were carried out prior to setting of appointments with the concerned respondents. Marijuana use is prevalent among the youth in Ghana today. With reference to Today News (2014), the Narcotic Control Board indicated that out of a total number of 50,000 drug users, 35,000 are youth spanning from junior, secondary and tertiary institutions. This study examines the impact of marijuana use among the youth of Sabon Zongo Community in Ghana and the reasons that influences them to use the drug. These objectives were met by handing out questionnaires to 150 out of which 132 gave their consent and answered them. Data collected was organized using Excel spreadsheet, Statistical Package for Social Sciences (SPSS) software and analysed with Descriptive Statistics and Pearson’s Chi-Square. Results and discussions from this study revealed that physical impacts and the gateway phenomenon had dependent relationships with marijuana use.

Findings and discussions

Introduction

The survey was conducted with the aim of identifying the impacts of Marijuana use; the reasons for their use of the substance.

Descriptive statistics

Demographic data of respondents

Out of 150 respondents, 132 submitted a fully completed questionnaires rendering a response rate of 88%. As a result, only the 132 fully completed questionnaires were analysed. The subsequent use of total population therefore refers to the 132 responses.
Demographic distribution of respondents were in the following proportions: Males represented 68.9% and females were 31.1%. Unemployment constituted about 36.4% of the total responses, 25.8% had Elementary Jobs (Drivers, Storekeeper etc.), 8.0% were Artisans or who had related work trades. 32.6% of respondents were professionals who worked in corporate institutions. The highest age category for respondents was 26 to 30 years (32.6%)

What is your reasons for Marijuana Use?

Table 4.1. Reasons for Marijuana use by Gender

<table>
<thead>
<tr>
<th>Reasons for marijuana usage</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Identity</td>
<td>77</td>
<td>58.3</td>
</tr>
<tr>
<td>Makes me eat Better</td>
<td>32</td>
<td>24.2</td>
</tr>
<tr>
<td>Anthelmintic</td>
<td>5</td>
<td>3.8</td>
</tr>
<tr>
<td>Belief of Harmlessness</td>
<td>13</td>
<td>9.8</td>
</tr>
<tr>
<td>Availability &amp; Opportunity</td>
<td>5</td>
<td>3.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>132</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

From Table 4.1 above, 58.3% (n=77) of the population, self-identity was one of the reasons why respondents often use marijuana. When asked they asserted that marijuana use makes them have a sense of belongingness as well as makes them feel very different from other groups of people – self-identity. Again, 24.2% (n=32) of responses revealed using marijuana makes them eat better; marijuana serves as an appetiser. More so, 9.8 %(n=13) clearly stated the belief of marijuana being harmless to them.

Frequency of marijuana use per day

Respondents were asked to give responses to the number of rolls of marijuana they smoke within a day as in table 4.1 below
Table 4. 2. The frequency of marijuana use by respondents

<table>
<thead>
<tr>
<th>Number of times you use marijuana</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>One a day</td>
<td>16</td>
<td>12.1</td>
</tr>
<tr>
<td>2 rolls a day</td>
<td>56</td>
<td>42.4</td>
</tr>
<tr>
<td>3 to 5 rolls a day</td>
<td>54</td>
<td>40.9</td>
</tr>
<tr>
<td>Above 5 rolls per day</td>
<td>6</td>
<td>4.5</td>
</tr>
<tr>
<td>Total</td>
<td>132</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Data

Responses revealed 42.4% (n=56) of the population said they smoke two rolls of marijuana per day. 40.9% (n=54) smokes marijuana three (3) to five (5) rolls per. Again, 12.1% (n = 16) smokes just a roll of marijuana per day. Lastly, 4.5% of the population smokes six (6) or more rolls of marijuana per day.

Difficulty in purchasing marijuana

When respondents were asked about how difficult it is for them to purchase marijuana, their responses are given below:

Table 4. 1. Marijuana purchase and availability

<table>
<thead>
<tr>
<th>Difficulty in getting marijuana</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficult</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Very Difficult</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Easy</td>
<td>32</td>
<td>24.2</td>
</tr>
<tr>
<td>Very Easy</td>
<td>100</td>
<td>75.8</td>
</tr>
<tr>
<td>Total</td>
<td>132</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Data

Responses from respondents showed that 75.8% (n=100) of the total population finds it very easy in purchasing or having access to marijuana. 24.3% (n=32) said availability and purchasing marijuana was easy to come by. None of the respondents had a difficulty purchasing marijuana

How do you use (Ingest) Marijuana?

Respondents were asked to give their views on how they usually use marijuana. Four main means by which marijuana can be ingested were provided for them to choose from. The results are given below.

Table 4. 4. How marijuana is ingested

<table>
<thead>
<tr>
<th>How one uses marijuana</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smokes</td>
<td>113</td>
<td>85.0</td>
</tr>
<tr>
<td>Topically</td>
<td>5</td>
<td>3.8</td>
</tr>
<tr>
<td>Orally</td>
<td>12</td>
<td>9.0</td>
</tr>
<tr>
<td>Sublingually</td>
<td>3</td>
<td>2.3</td>
</tr>
<tr>
<td>Total</td>
<td>133</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Data

Table 4.4 show the means by which marijuana can be ingested or used. 85.0% of the total population of 132 respondents (n=113) stated clearly that they ingested marijuana by way of smoking. Also 9.0% (n=12) ingested marijuana orally; marijuana mixed in “Shito”, taken as beverage (teas) etcetera. 3.8% (n=5) use marijuana topically.
Law governing the use of marijuana in Ghana

Respondents were asked to share their knowledge on whether they knew about any laws governing the illegal purchase or use of marijuana in Ghana and their perception if the current laws prohibiting the use of marijuana were revoked. The following were their views:

![Figure 4.2: The Knowledge of Ghana laws governing the use of marijuana](#)

Source: Field Data

Experience with other illicit drugs use

![Figure 4.3: The use of other illicit drugs after using marijuana](#)

Source: Field Data

Almost a half of respondents from the population 46.0% (n=61) interviewed knew there were such laws prohibiting the illegal purchase of use of marijuana in Ghana. Again, 30.0% (n=40), said there is no such laws governing the use of marijuana. 24.0% also said they had no idea as to whether there are laws governing, they purchase or use of marijuana in Ghana. 68.9% of the total population said they would use marijuana if the current law prohibiting its use were revoked and about 31.1% said the affirmative.

55.3% (n=73) of the population asserted that besides using marijuana, they also used cocaine. In likewise manner, 15.2% (n=20) also use heroin besides using marijuana. Codeine could not be left out...
of the top three other used drugs besides marijuana as it showed 13.6% of the total population who are involved in its use. 11.4% used ecstatic drugs while a little as 4.5% used methamphetamines.

Discussion of findings

Relationship between Marijuana use and the use of other illicit drugs: “Gateway Phenomenon”

Just as the literature review brought to light the cardinal impacts of marijuana use, the research findings prove that the use of other illicit drugs (Gateway Phenomenon) and Physical Effects of marijuana use such as tachycardia, daily cough & phlegm production, dry eyes or dizziness etc. were found to have some relationship with marijuana use, being it short term or long use. To ascertain whether there exists a dependence relationship between marijuana use and other illicit drugs used such as cocaine, heroin, and ecstasy among others, the Pearson’s Chi-Square values and asymptotic significance (p-value) were generated at a confidence level of 95%. This goodness of fit test was to test the following hypotheses:

\[ H_0: \text{There is no association between marijuana use and the use of other illicit drugs.} \]

\[ H_1: \text{There is an association between marijuana use and the use of other drugs.} \]

We fail to reject the null hypothesis \( H_0 \) if the \( p \)-value is greater than 0.05, while a \( p \)-value less than 0.05 means the null hypothesis, \( H_0 \), must be rejected for the alternative hypothesis, \( H_1 \). Table 4.5 shows the \( p \)-values generated for the test of relations between marijuana use and the use of other drugs.

Table 4.5. Pearson Chi-Square Test for the relationship between Marijuana Users and other use of illicit drugs, (Gateway Phenomenon)

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymptotic Significance (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>34.275 a</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>132</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS Chi-square test of field data

From table 4.5, we reject the null hypothesis \( H_0: \text{There is no association between marijuana use and the use of other illicit drugs.} \)

\[ p \text{-value (Use of other illicit drugs)} = 0.000 \text{ \( p \)-value < 0.05} \]

We therefore conclude that at the 0.05 significance level there is enough evidence to reject the null hypothesis \( H_0 \) that, there is no relationship between using other illicit drugs and marijuana and conclude that there is a relationship of dependence between marijuana use and the use of other illicit drugs (The Gateway Drug Phenomenon).

In literature review, Malhotra & Biswas, (2006) stated in their research work the gateway analogy evokes two ideas that are often confused. The "stepping stone" hypothesis, which is the first ideology proposes that progression from cannabis to other drugs arises from pharmacological properties of cannabis itself. The second is that cannabis serves as a gateway to the world of illegal drugs in which youths have greater opportunity and are under greater social pressure to try other illegal drugs. In view of these claims by Malhotra & Biswas, (2006) it was expected that respondents who used marijuana by whatever means (topical, inhalation, etc.) would be more prone to using other illicit drugs like cocaine, heroin and the likes. To investigate whether or not there is such a relationship, a Chi-Square Test with the hypothesis

\[ H_0: \text{There is no association between marijuana use and the use of other illicit drugs.} \]

\[ H_1: \text{There is an association between marijuana use and the use of other drugs.} \]
Relationship between marijuana and physical impacts

Tashkin et al., (2002) as reviewed earlier in literature pointed out that the action of smoking marijuana has been found to increase risk of airflow obstruction, bronchitis, and airway injury such as oedema. The Pearson’s Chi-Square values and asymptotic significance \((p\)-value\) were generated at a confidence level of 95%. We tested the following hypotheses:

\[ H_0 = \text{There is no association between} \text{ marijuana use and having issues related to tachycardia (fast heart beat and/or reduced blood pressure), daily cough & phlegm production, dry eyes or} \text{ (Physical Impacts).} \]

\[ H_1 = \text{There is an association between} \text{ marijuana use and having issues related to tachycardia (fast heart beat and/or reduced blood pressure), daily cough & phlegm production, dry eyes or} \text{ (Physical Impacts).} \]

Table 4.6 shows the \(p\)-values generated for the test of relationship between marijuana use and having issues related to tachycardia, daily cough & phlegm production, dry eyes or dizziness (Physical Impacts).

From table 4.6, we reject the null hypothesis \(H_0\): \text{There is no association between} marijuana use and Physical Effects and accept the Alternative hypothesis \(H_1\).

\[ p\text{-value (Physical Impacts)} = 0.000 \]

\[ p\text{-value} < 0.05 \]

We therefore conclude that at the 0.05 significance level there is enough evidence to reject the null hypothesis \(H_0\) that, there is no relationship between marijuana use and having issues related to tachycardia (fast heart beat and/or reduced blood pressure), daily cough & phlegm production, dry eyes or dizziness (Physical Impacts) and conclude that there is a relationship of dependence between marijuana use and having issues related to tachycardia (fast heart beat and/or reduced blood pressure), daily cough & phlegm production, dry eyes or dizziness (Physical Impacts of using marijuana).

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymptotic Significance (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>30.915 a</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>132</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS Chi-Square Test of Field Data

Medic8 online portal also wrote in their studies with regards to physical effects of long-term marijuana users. They reported that marijuana users were seen to have issues relating to tachycardia (fast heart beat and/or reduced blood pressure), daily cough & phlegm production, dry eyes or dizziness which we categorized them as Physical effects. To investigate whether or not there is such a relationship, we employed a Chi-Square Test with the hypothesis.

\[ H_0: \text{There is no association between} \text{ marijuana use and Physical Effects.} \]

\[ H_1: \text{There is an association between} \text{ marijuana use and Physical Effects.} \]

Relationship between marijuana and psychosocial impacts

As explained by Palamar et al. (2014) when he examined multiple self-reported psychosocial outcomes of high school seniors in the United States who used alcohol and marijuana. He found out that his findings supported the aforementioned adverse effects of impaired cognitive and psychological functioning. The Pearson’s Chi-Square values and asymptotic significance \((p\)-value\) were generated at a confidence level of 95%. This goodness of fit test was to test the following hypotheses:

\[ H_0 = \text{There is no association between} \text{ marijuana use and psychosocial impacts (hostile, depressed, stressed, loss of job control/performance).} \]
$H_1 =$ There is an association between marijuana use and psychosocial impacts (hostile, depressed, stressed, loss of job control/performance).

Table 4.7 shows the $p$-values generated for the test of relationship between marijuana use and psychosocial impacts (hostile, depressed, stressed, loss of job control/performance).

From table 4.7, we fail to reject the null hypothesis $H_0$: There is no association between marijuana use and psychosocial impacts (hostile, depressed, stressed, loss of job control/performance) and reject the Alternative hypothesis $H_1$.

$ p$-value (Psychosocial impacts) = 0.378 $p$-value $> 0.05$

We therefore conclude that at the 0.05 significance level there is no enough evidence to reject the null hypothesis $H_0$ that, there is no relationship between marijuana use and psychosocial impacts (hostile, depressed, stressed, loss of job control/performance) and conclude that there is no relationship of dependence between marijuana use and psychosocial impacts.

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymptotic Significance (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>4.216</td>
<td>4</td>
<td>.378</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>132</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS Chi-Square Test of Field Data

Limitations of the study

The major limitation encountered in this study was the inability to assess whether or not the respondents were actually marijuana users.

Chapter summary

The main findings in the summary revealed that there was a dependent relationship between marijuana use and the “Gateway Drug Phenomenon” as well as “Physical Effects” that a user is exposed to while using marijuana illicitly. These results were consistent with literature.

Conclusions and recommendations

Introduction

The results reveal that the impacts of marijuana use among the youth are related to psychosocial and the likelihood of using other potent drugs, the “Gateway Drug Phenomenon”

Conclusion

Not until the ill effects of marijuana can be eradicated and its medicinal benefits, harnessed to the fullest, there will always be the need to control its use, especially among the youth.

Recommendation

Further research

Although the research established physical and gateway drug phenomenon as the most important impacts of marijuana use among the youth, further research needs to be conducted to find out the most important deterrents that could help to reduce marijuana intake.

Reference


