

# Knowledge, attitudes, and practices regarding legal and illegal substances by nursing students from Cartagena (Colombia)

Amparo Montalvo-Prieto<sup>1</sup>  
Irma Yolanda Castillo-Ávila<sup>2</sup>

## Knowledge, attitudes, and practices regarding legal and illegal substances by nursing students from Cartagena (Colombia)

### Abstract

**Objective.** This article sought to describe knowledge, attitudes, and practices regarding the use of legal and illegal substances by nursing students from Cartagena (Colombia). **Methodology.** This was a descriptive study conducted on a probabilistic sample of 689 students matriculated in three nursing programs. The study used the Predisposing Factors instrument associated to the use of psychoactive substances by Cepeda, Aldana, and Ossío. **Results.** The mean age of the participants was 20.5 years, 91.9% were women, 92.4% belonged to socio-economic levels 1 to 3, 87.5% were single. Of the 12 psychoactive substances (PAS) consulted, eight were considered by over 90% of the students as harmful to health. A total of 94% considered that the brain is the organ most affected by drug consumption. The students considered production (80.4%), trafficking (79.4%), and use of substances (80.0%) as problems of great importance; and they agreed with investing financial resources for prevention, rehabilitation, and follow-up programs for the population affected (89.1%). They expressed that use of PAS is mainly influenced by friends (26.9%) and by family problems (26.7%). The highest life prevalence of legal PAS use were: alcohol (77.6%) and cigarettes (17.6%); along with marijuana for illegal PAS use (1.8%). **Conclusion.** Knowledge of nursing students on legal and illegal PAS is not satisfactory, although they have favorable attitudes for their prevention and control. Use of PAS by the students, although not of great magnitude, is a problem deserving attention from organisms in charge of university welfare programs. Curricular contents should be enhanced on the phenomenon of PAS use of future nursing professionals.

**Key words:** health knowledge, attitudes, practice; students, nursing; alcohol drinking; smoking; street drugs.

1 RN, M.SC., Professor. Universidad de Cartagena, Colombia.  
email: amontalvop1@unicartagena.edu.co

2 RN, M.SC., Professor. Universidad de Cartagena, Colombia.  
email: icastilloa@unicartagena.edu.co

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## Conocimientos, actitudes y prácticas frente a las sustancias lícitas e ilícitas de los estudiantes de enfermería de Cartagena (Colombia)

### ■ Resumen ■

**Objetivo.** Describir los conocimientos, actitudes y prácticas frente al consumo de sustancias lícitas e ilícitas de los estudiantes de enfermería de Cartagena (Colombia). **Metodología.** Estudio descriptivo realizado en una muestra probabilística de 689 estudiantes matriculados en tres programas de enfermería. Se utilizó el instrumento Factores predisponentes y asociados al consumo de sustancias psicoactivas de Cepeda, Aldana y Ossío. **Resultados.** La edad promedio de los participantes es de 20.5 años; el 91.9%, mujeres; el 92.4% pertenece a los estratos 1 a 3; 87.5%, solteros. De las 12 sustancias psicoactivas (SPA) consultadas, más del 90% de los estudiantes considera a ocho de ellas como perjudiciales para la salud. El 94%, que el cerebro es el órgano más afectado por el consumo; y, finalmente, que la producción (80.4%), el tráfico (79.4%) y el consumo de sustancias (80.0%), son problemas de gran importancia; y están de acuerdo en invertir recursos financieros para programas de prevención y rehabilitación y seguimiento a la población afectada (89.1%). Expresan que el consumo de SPA está influenciado, principalmente, por los amigos (26.9%) y por los problemas familiares (26.7%). Las prevalencias de vida de consumo de SPA de tipo lícito más altas fueron: el alcohol (77.6%) y el cigarrillo (17.6%); y para las ilícitas la marihuana (1.8%). **Conclusión.** Los conocimientos de los estudiantes de enfermería sobre SPA lícitas e ilícitas no son satisfactorios, aunque tienen actitudes favorables para su prevención y control. El consumo de SPA por los estudiantes, aunque no es de gran magnitud, es un problema que merece atención de los organismos encargados de los programas de bienestar universitario. Deben fortalecerse los contenidos curriculares sobre el fenómeno del consumo de SPA de los futuros enfermeros.

**Palabras clave:** conocimiento, actitudes y práctica en salud; estudiantes de enfermería; consumo de bebidas alcohólicas; tabaquismo; drogas ilícitas.

## Conhecimentos, atitudes e práticas frente às substâncias lícitas e ilícitas dos estudantes de enfermagem de Cartagena (Colômbia)

### ■ Resumo ■

**Objetivo.** Descrever os conhecimentos, atitudes e práticas frente ao consumo de substâncias lícitas e ilícitas dos estudantes de enfermagem de Cartagena (Colômbia). **Metodologia.** Estudo descritivo realizado numa mostra probabilístico de 689 estudantes matriculados em três programas de enfermagem. Utilizou-se o instrumento Fatores predisponentes e sócios ao consumo de substâncias psicoativas de Cepeda, Aldana e Ossío. **Resultados.** O A idade média dos participantes é de 20.5 anos, o 91.9% são mulheres, 92.4% pertencem aos estratos 1 a 3, 87.5% são solteiros. Das 12 substâncias psicoativas (SPA) conferidas, oito são consideradas por mais do 90% dos estudantes como prejudiciais para a saúde. O 94% considera que é o cérebro o órgão mais afetado pelo consumo. Os alunos consideram a produção (80.4%), o tráfico (79.4%) e o consumo de substâncias (80.0%), como problemas de grande importância; e estão de acordo em investir recursos financeiros para programas de prevenção e reabilitação e seguimento à população afetada (89.1%). Expressam que o consumo de SPA está influenciado principalmente pelos amigos (26.9%) e pelos problemas familiares (26.7%). As prevalências de vida de consumo de SPA de tipo lícito mais altas foram: o álcool (77.6%) e o cigarro (17.6%); e para as ilícitas a maconha (1.8%). **Conclusão.** Os conhecimentos dos estudantes de enfermagem sobre SPA lícitas e ilícitas não são satisfatórios, ainda que têm atitudes favoráveis para sua prevenção e controle. O consumo de SPA pelos estudantes, ainda que não é de grande magnitude, é um problema que merece atendimento dos organismos encarregados dos programas de bem-estar universitário. Devem fortalecer-se os conteúdos curriculares sobre o fenômeno do consumo de SPA dos futuros enfermeiros.

**Palavras chave:** conhecimentos, atitudes e prática em saúde; alunos de enfermagem; consumo de bebidas alcoólicas; tabagismo; drogas ilícitas.

## Introduction

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Use of legal and illegal substances among youth has generated concern because of its constant increase. According to the 2002 WHO report,<sup>1</sup> alcohol causes 4% of the morbidity load, which represents 58.3-million disability-adjusted life years and 3.2% (1.8-million) of all deaths in the world. Of the 26 risk factors evaluated by the WHO,<sup>1</sup> alcohol was the fifth most important risk factor with respect to premature deaths and disabilities in the world.<sup>1</sup> Likewise, tobacco use is one of the main risk factors of several chronic diseases.<sup>2</sup>

Substance abuse among adolescents constitutes an important public health problem. The risks and associated damage vary for each substance and the negative consequences of dependence affect many aspects of life. These habits, on occasion, are maintained during adolescence and remain throughout life.<sup>3</sup> Studies conducted in Colombia with a general population in 2008 reveal that 86% of the participants had consumed alcohol sometime during their lives.<sup>4</sup> A total of 9.1% of the people had used some illegal drug at least once in their lives and 2.7% reported recent consumption or within the last year of any of them, with the group with the highest prevalence of illegal substance use being those from 18 to 24 years of age.<sup>4</sup>

The presence or absence of preconceptions and positive assessments of drugs facilitates the risk or protection of consumption.<sup>5,6</sup> University formation should be prepared to act on reducing the demand for psychoactive substances (PAS), converting education as a pedagogical model to promote health.<sup>7,8</sup> Nursing, from caretaking, plays an important role in promoting health and care of individuals, families, and communities with problems related to PAS use. Beliefs and attitudes regarding the problem of consuming legal and illegal substances are important for nursing; these permit carrying out healthy life styles congruent with the education they offer and making sure the activities they engage in during their leisure time do not contradict their teachings and the learning

acquired during their career.<sup>9</sup> This study sought to describe the knowledge, attitudes, and practices of nursing students from Cartagena regarding the use of legal and illegal substances.

## Methodology

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A descriptive study was conducted with a population of 1078 students matriculated in three nursing programs in Cartagena (Colombia). The participants were selected through stratified probabilistic sampling, via proportional allocation based on the number of students matriculated in each program and semester. A sample size of 689 subjects was determined. The study utilized the survey used in the study of *Predisposing Factors and associated to the use of psychoactive substances by adolescents and young adults from the city of Barranquilla in 2002*, designed by Cepeda JF, Aldana G, and Ossio A, which comprises 37 questions distributed into four aspects: socio-demographic aspects (11 questions), knowledge (4 questions), attitudes (4 questions), and practices (18 questions). Prior to gathering the information, a pilot test was conducted with 50 students to determine comprehension by the pollsters and the time employed to fill out the survey.

The research respected the ethical parameters for studies with human beings contained in Resolution 008430 of 1993 from the Colombian Ministry of Health and the Code of Nursing Ethics for Colombia.<sup>10</sup> Authorization was requested to use the instrument<sup>8</sup> and the research was approved by the Ethics Committee. The participants who wished to be included in the study signed and placed their index fingerprint on the informed consent, with prior explanation of the study objectives. Confidentiality and anonymity was guaranteed. Gathering of data was carried out during the second semester of 2010.

## Results

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Socio-demographic characteristics. A total of 689 university students participated in the study. Their mean age was  $20.5 \pm 3.1$  years; 91.9% were females. With respect to socio-economic level, the lowest levels predominated (1 = 26.9%, 2 = 39.8%, 3 = 25.7%, 4 = 5.5%, and 5 = 1.0%). Regarding marital status, 87.4% were single, 6.4% were married, 4.9% were common law spouses, and 1.3% were separated. Some 82.2% of the students lived with their parents and other family members, 7.8% lived with their partner, 6.8% lived alone, and the smallest percentage (3.2%) lived with friends.

Knowledge of PAS. The nursing students recognized marihuana (66.0%), heroin (65.7%), and cocaine (65.5%) as hallucinogenic psychoactive substances. The PAS identified by students as depressants were benzodiazepine (31.6%) and alcohol (21.6%); alcohol (56.6%) and cigarettes (49.6%) were identified as stimulant PAS. Likewise, they do not recognize Orlastein (67.5%) and LSD (66.5%). Of the 12 substances consulted, eight were considered by over 90% of the students as health hazards. Amphetamines (63.9%), LSD (52.0%), benzodiazepines (51.2%), and Orlastein (48.3%) were identified as non-harmful.

Some 94% of those surveyed considered the brain as the organ that is affected most with drug use and relate being red eyed (88.4%), hyperactive (88.0%), drinking alcohol (72.3%), dilated pupils (68.2%), drinking water (57.6%), over eating (45.3%), being inhibited (41.7%), not eating (41.5%), and eating sweets (13.2%) as effects of PAS use.

Attitude regarding PAS use. The students considered the production (80.4%), trafficking (79.4%), and use of substances (80.0%) as problems of great importance; they agree with investing financial resources for drug addiction prevention programs in adolescents (87.5%), as well as rehabilitation and follow-up programs for the population affected (89.1%). The students expressed that PAS use is mainly influenced by

friends (26.9%) and by family problems (26.7%) (Table 1). The main reasons to abandon their consumption are affectation of social, work, and family life (72.0%), harmful effects (68.2%), problems with the law (54.1%), and lack of money (24.7%) (Table 2).

PAS use. Table 3 shows that the highest life prevalence of legal PAS use was alcohol (77.6%) and cigarettes (17.6%); along with marihuana for illegal PAS use (1.8%). Other consumption indicators can be observed in the same table. The average age to start drug use is 18 years for all substances.

## Discussion

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The nursing students participating in the study were mostly single women, living with their parents, and from the lowest socio-economic levels; these data are similar to the studies by Rodríguez<sup>11</sup> and Rojas.<sup>12</sup> The study participants consider marihuana, heroin, and cocaine as hallucinogenic substances; benzodiazepines and alcohol as depressants; alcohol along with tobacco is identified as a stimulant. It is important to note the ignorance the students revealed regarding type of substance and the effects through its use. Studies conducted with adolescents<sup>5,6</sup> report that they can have varying opinions on PAS; their attitudes depend on the little knowledge and on minimizing the effects of marihuana, alcohol, and cigarette use. Morel<sup>13</sup> reports that knowledge received on the harmful consequences of cigarette smoking was in lower proportion in the university compared to high school, even though these concepts are part of the academic program of the nursing career.

For the study group, experimental use of any legal or illegal substance and its regular use are related to the increase of pleasant sensations, greater ease to express opinions and feelings, acceptance by their peers, and better academic, work, sports, and creative performance. Becoña<sup>14</sup> states that

the low perception of risk becomes an important factor in maintaining the use of these substances. Contrary to that presented, adolescents from a study carried out in Colombia classified the habit of cigarette smoking as risky.<sup>15</sup> Our participants report alcohol and nicotine use and another type of substance in lower frequency. Baus<sup>16</sup> describes that the figures of use of these types of substances

tend to be higher than those reported, given an expected tendency to hide this type of information, although the students considered themes related to the production, traffic, and use of PAS as important and reject their legalization. Navarro<sup>15</sup>, likewise, reports that the majority of the subjects agree with increasing restrictions to tobacco use in the workplace.

**Table 1.** Reasons why the nursing students consume PAS. Cartagena 2010

Reasons	Totally Agree (%)	Partially Agree (%)	No Opinion (%)	Partly Disagree (%)	Totally Disagree (%)
To more easily relate with others	11.5	22.2	8.0	7.7	50.7
To satisfy curiosity about its effects	20.5	24.8	7.1	9.1	38.5
To have fun	22.2	21.5	5.8	7.0	43.5
To party	21.9	18.9	7.3	7.7	44.3
To imitate someone	15.0	0.3	15.6	37.8	31.3
Due to influence from my friends	26.9	20.2	5.1	6.8	41.1
To gain acceptance in a group	25.5	18.4	6.1	6.4	43.5
Because it is forbidden	16.1	20.0	10.2	9.7	44.0
To confront depression	23.9	22.9	7.5	6.2	39.3
To confront loneliness	25.7	20.3	7.5	6.2	40.2
Due to family problems	26.7	22.6	6.0	6.2	38.5
Due to affective and/or sentimental problems	21.8	6.5	6.5	23.8	41.4
Due to the sensations it provokes	19.7	22.2	9.3	5.7	43.1
To dissipate stress	16.7	18.7	10.0	9.0	45.6
To express independence and sometimes hostility	17.3	16.1	11.2	6.2	49.2

**Table 2.** Reasons to stop using drugs by nursing students. Cartagena 2010

Reasons	Totally Agree (%)	Partially Agree (%)	No Opinion (%)	Partly Disagree (%)	Totally Disagree (%)
It was a bad experience	5.4	4.5	10.4	20.0	59.7
It is a health hazard	6.1	3.8	5.8	16.1	68.2
It affects social, work, and family life	4.9	1.9	4.9	16.3	72.0
It brings about problems with the law	8.6	6.1	8.9	22.4	54.1
It produces a sense of guilt	7.1	5.8	14.2	22.2	50.7
It was so decided	6.7	4.4	14.8	20.3	53.8
Lack of money	23.9	12.0	18.6	20.8	24.7

**Table 3.** Indicators of PAS use in nursing students. Cartagena 2010

PSA	Current use %	Former use %	Occasional use %	Test index %	Life prevalence %
Alcohol	10.7	6.2	52.4	8.3	77.6
Benzodiazepines	0.1	0.0	0.0	1.0	1.1
Cocaine	0.0	0.0	0.0	0.1	0.1
Marihuana	0.1	0.3	0.1	1.3	1.8
Cigarettes	1.9	2.6	4.4	8.7	17.6
Inhalants (Boxer adhesive glue)	0.0	0.0	0.0	0.1	0.1

The nursing students state resources should be dedicated to drug use prevention and rehabilitation programs. Romero<sup>17</sup> reports, in this regard, that it is vitally important to prevent the use of marihuana, cocaine, and any other illegal substance, given that although the figures are comparatively low, there are medical students with clearly problematic frequencies and intensities of drug use. Several authors<sup>18-22</sup> consider it necessary to strengthen formal education regarding the risks of PAS use because their perception is one of the most important factors to diminish their use. Prevention measures must necessarily focus on the young population, given that marihuana and cocaine have their maximum use during this age.<sup>22</sup> The use of legal and illegal substances by the participants begins around 18 years of age and curiosity is the primary cause indicated; similar to Rodríguez,<sup>11</sup> who reports the starting age from 18 to 25 years, and contrary to this, another research<sup>20</sup> reports that the starting age is 14 years, independent of the type of population and gender. The main causes for the use of substances reported in this study are family problems, influence from friends, a way of confronting depression and loneliness. Influence from friends agrees with similar findings from other studies.<sup>11-13,17</sup>

In this study, alcohol is the substance of greater use, followed by cigarettes, but it is important that students who have abandoned the use of any of these substances adduce to reasons to stop their use: family problems or problems with the law, lack of money, being harmful to health and feelings of guilt; similar studies report that alcoholic beverages are the most used PAS, followed by tobacco.<sup>17,18</sup> For Romero,<sup>17</sup> awareness

of the damage and risk of addiction, which would act as dissuasive elements could explain why some substances were consumed more than others. This study concludes that students' knowledge on legal and illegal drugs is not satisfactory, although they consider it very important to enhance programs for the prevention and rehabilitation of the use of substances. The most often used legal PSA is alcohol and marihuana is the most often used illegal substance.

Commitment is required from the directions of the nursing programs to enhance curricular content on the phenomenon of legal and illegal PAS use. Use of PAS by nursing students, although not of great magnitude, is a problem that deserves attention from organisms in charge of university welfare programs.

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