

Evaluation of the Level of Anxiety, Depression and Motivation of Smokers Seeking Treatment for Smoking Cessation in the Federal District

Avaliação do Grau de Ansiedade, Depressão e Motivação dos Fumantes que Procuraram Tratamento para Deixar de Fumar no Distrito Federal

Evaluación del Grado de la Ansiedad, de la Depresión y de la Motivación de los Fumadores que Solicitan Tratamiento para Dejar de Fumar en el Distrito Federal

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Abstract

Introduction: Anxiety, depression and low motivation can interfere with successful treatment of smoking. **Objective:** To evaluate the level of anxiety, depression and motivation of smokers enrolled in cessation programs in the Federal District. **Method:** A cross-sectional study involving 1,233 smokers enrolled at 19 Reference Centers. Instruments: *Hospital Anxiety and Depression Scale*, motivation (Richmond test), and forms with social and demographic data. For data analysis, where appropriate, the *Student t test*, *chi-square* and *Spearman* correlation were used. **Results:** Women had higher level of anxiety ($p < 0.01$), depression ($p < 0.01$), and motivation ($p < 0.01$) for smoking cessation when compared with men. There was no difference between motivation and socio-demographic variables ($p > 0.05$). Low income and low education levels were associated with anxiety ($p < 0.01$ and $p < 0.03$) and depression ($p < 0.01$ and $p < 0.04$) levels. Age of smoking initiation was associated with level of depression, the younger the onset of smoking, the greater likelihood of depression ($p < 0.02$). There was no correlation between number of cigarettes per day and level of motivation to quit smoking, and levels of anxiety and depression. The motivation was not associated with anxiety and depression. **Conclusion:** There was association regarding levels of anxiety, depression and smoking. About 30% of smokers presented likely levels of anxiety and depression, among those 50% had high motivation to quit smoking, especially women. Those results indicate the importance of assessing these symptoms and motivation at the beginning of treatment to raise the rates of cessation.

Key words: Tobacco Use Cessation; Anxiety; Depression; Motivation

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INTRODUCTION

Although the harmful effects of tobacco use are quite known, according to the Brazilian Institute of Geography and Statistics (IBGE), in Brazil, in 2008, the percentage of smokers was 17.5% among people aged 15 or above, which corresponded to the contingent of 25 million people. In the Federal District, the percentage of smokers found was 13.4%¹.

Among the reasons smokers report to continue smoking is the relief of anxiety and depression symptoms. Furthermore, it is known that anxiety is associated with increased risk of relapse during smoking cessation, and depressive symptoms are significant predictors of lapses and premature relapses². It is observed that many people who meet diagnostic criteria for mental disorders do not seek treatment for this condition, which makes it important to investigate the relationship between mental illness and smoking³. Thus, a closer look at the issues related to anxiety and depression of smokers undergoing treatment for smoking cessation, as well as the provision of concurrent treatment, may become an important step to help them cope with nicotine abstinence⁴.

Another important point in this process is motivation, which is an indispensable condition to initiate treatment, and its absence practically eliminates the hope of abstinence. The knowledge of the characteristics associated with the motivation for quitting and smoking cessation are important because they enable the identification of groups with higher and lower probabilities to smoking cessation and, thereby, adapt approach strategies⁵.

Therefore, the objective of this study was to evaluate the levels of anxiety, depression and motivation in patients seeking treatment to quit smoking in Reference Centers of Smoking Treatment in the Federal District.

METHODS

A cross-sectional study was carried out with 1233 patients from 19 Reference Centers of Smoking Treatment in the Federal District. The data were collected in the period from February to September 2009, by professionals who give assistance and who were previously trained by the researchers. The survey was conducted after approval of the Research Ethics Committee of the Foundation for Teaching and Research Of Health Sciences (FEPECS) SES/DF (Letter No 256/09. CEP/SES), based on the Resolution 196/96 CNS/MS, which provides for "research involving human beings". All patients in the study signed a free and informed consent and filled out a form when they entered the smoking cessation program. Information concerning the levels of anxiety and depression were

measured with the Hospital Anxiety and Depression Scale (HADS). For each item, 0, 1, 2 or 3 points can be given - the odd questions evaluate the level of anxiety (HADS-A) and the even ones the level of depression (HADS-D). Zigmond and Snaith⁶ cut-offs were adopted, recommended for both situations: from 0-7 points: unlikely, 8-11 points: possible (questionable or doubtful) and 12-21: likely. At the beginning, HADS was designed to identify symptoms of anxiety and depression in clinical hospital not psychiatric patients, and subsequently used in non-hospitalized patients without diagnosed diseases⁷. We opted for this scale because of its easy handling and fast execution, which enables it to be used either by the patient or interviewer.

Motivation was measured by the Richmond test, and cut-offs suggested by the author⁸ were adopted: 0-6: low motivation, 7-9: moderate motivation and 10: high motivation. Social and demographic data were obtained from the "Outpatient Smoking Cessation Clinic Form". Data were analyzed through the Statistical Package for Social Sciences (SPSS), version 17,0, using Student's t test or chi-square test and Spearman correlation whenever appropriate for the comparison of variables; the level of significance was 5% (p. 0.05).

RESULTS

A total of 1,233 patient sheets from various Health Units of Federal District was searched. In Table 1 socio-demographic and economic data from the sample are presented, and it is noticed that most patients, 65%, were females. Age ranged from 19 to 77 years old, 44±11 years on average. Age at smoking initiation was between 5 and 40 years old, 16±4.7 years on average; and, in 70% of the sample, the age at smoking initiation was under 20 years old.

As to family income, patients who received less than one minimum wage are equivalent to 13%, those with incomes from 1 to 2 MW, totalize 15%; 2-4 MW - 10%, 4-6 MW - 3%, 6-8 MW - 2%, and 8 MW or above - 4%. As to education, it is noticed that among most patients surveyed 43% finished elementary school, 37% finished high school and just slightly more than 11% have higher education. It was also observed that 6% of patients are not literate.

Table 2 shows the levels of depression in the population studied and their distribution within the analyzed variables. It is possible to see that women are statistically significantly (p <0.001) more depressed than men and that the chances of women being depressed are three times higher in comparison to men. Significant differences as to depression weren't found at different age

Table 1. Distribution of population as to sociodemographic and economic variables

| Studied factor | n | % | |
|---------------------------------|--------------------|-----|------|
| Gender | Male | 427 | 34.6 |
| | Female | 806 | 65.4 |
| Age group | Under 30 years old | 165 | 13.4 |
| | 31 to 40 y | 250 | 20.3 |
| | 41 to 50 y | 432 | 35 |
| | 51 to 60 y | 278 | 22.5 |
| | 61 y and above | 108 | 8.8 |
| Age range at smoking initiation | Under 10 years | 97 | 7.9 |
| | 11 to 20 y | 949 | 77 |
| | 21 to 30 y | 100 | 8.1 |
| | Above 30 y | 20 | 1.6 |
| | Not reported | 66 | 5.4 |
| Income range in minimum wage | Less than 1 MW | 161 | 13.1 |
| | 1 to 1.99 MW | 190 | 15.4 |
| | 2 to 3.99 MW | 119 | 9.6 |
| | 4 to 5.99 MW | 42 | 3.4 |
| | 6 to 7.99 MW | 27 | 2.2 |
| | 8 MW or above | 54 | 4.4 |
| | Not reported | 640 | 51.9 |
| Educational background | Illiterate | 76 | 6.2 |
| | Elementary | 531 | 43.1 |
| | High school | 459 | 37.2 |
| | Higher education | 143 | 11.6 |
| | Not reported | 24 | 1.9 |

groups, although a tendency to be more depressed can be observed in the population ranging from 41 to 50 years old. Probable depressed patients' average age was 45 ± 12 years. When comparing the age at smoking initiation and the level of depression, it was found that the relationship between them was significant ($p = 0.025$), and from this data, it is possible to extract that patients with a probable level of depression started smoking at an average age of 15 ± 5 years.

Regarding family income, there is statistically significantly higher depression probability among the ones in the least favored groups ($p = 0.001$). Similarly, smokers with lower educational background had significantly ($p = 0.003$) more chances of depression than those with higher education. As to the amount of tobacco consumed daily and scale of depression, no statistically significant association ($p > 0.05$) was found.

In Table 3, there are variables related to the level of anxiety, and it can be verified that the level of anxiety

among men and women showed significant difference ($p < 0.001$), and that women have probable level of anxiety three times higher than men. In terms of age, it is noticed that the level of anxiety is related to the patient's age ($p = 0.008$). Those aged between 41 and 50 years were the ones who presented greater probability of being anxious. It is also found a tendency of association between the age at smoking initiation and the probable level of anxiety ($p = 0.057$).

Just as in depression, as to wage range, higher probable anxiety is noticed in the less favored classes in a statistically significant way ($p = 0.039$). Similarly, smokers with low education had a significantly ($p = 0.001$) higher probability of anxiety than those with higher education. As to the amount of tobacco smoked a day and anxiety, relevant connection between them ($p > 0.05$) was not observed either.

The level of motivation in patients as to socioeconomic variables and the levels of anxiety and depression were

Table 2. Level of depression as to sociodemographic variables

| | | Depression Scale (HAD) | | | Total | Chi-square test (p-value) |
|--------------------------------------|---------------|------------------------|----------|--------|-------|---------------------------|
| | | Unlikely | Possible | Likely | | |
| | | n | n | n | n | |
| Gender | Male | 248 | 108 | 60 | 416 | 0.000 |
| | Female | 334 | 237 | 213 | 784 | |
| | Total | 582 | 345 | 273 | 1,200 | |
| Age range | Under 30 y | 85 | 47 | 30 | 162 | 0.066 |
| | 31 to 40 | 104 | 89 | 52 | 245 | |
| | 41 to 50 | 201 | 113 | 106 | 420 | |
| | 51 to 60 | 134 | 75 | 59 | 268 | |
| | 61 and above | 58 | 21 | 26 | 105 | |
| | Total | 582 | 345 | 273 | 1,200 | |
| Income range in minimum wages | Under 1 MW | 60 | 46 | 52 | 158 | 0.001 |
| | 1 to 1.99 MW | 86 | 56 | 41 | 183 | |
| | 2 to 3.99 MW | 64 | 29 | 25 | 118 | |
| | 4 to 5.99 MW | 25 | 10 | 6 | 41 | |
| | 6 to 7.99 MW | 18 | 5 | 4 | 27 | |
| | 8 MW or above | 37 | 12 | 4 | 53 | |
| | Total | 290 | 158 | 132 | 580 | |
| Educational background | Illiterate | 24 | 27 | 19 | 70 | 0.003 |
| | Elementary | 238 | 146 | 136 | 520 | |
| | High school | 231 | 126 | 92 | 449 | |
| | Higher educ. | 80 | 41 | 18 | 139 | |
| | Total | 573 | 340 | 265 | 1,178 | |
| Age at the smoking onset | Under 10 y | 41 | 32 | 22 | 95 | 0.025 |
| | 11 to 20 y | 435 | 264 | 225 | 924 | |
| | 21 to 30 y | 61 | 24 | 12 | 97 | |
| | Above 30 y | 6 | 8 | 6 | 20 | |
| | Total | 543 | 328 | 265 | 1,136 | |
| Amount of tobacco (cigarettes) a day | Less than 20 | 359 | 204 | 161 | 724 | 0.519 |
| | More than 20 | 137 | 93 | 69 | 299 | |
| | Total | 496 | 297 | 230 | 1,023 | |

also compared. In Table 4, it is observed that the level of motivation varies with the patient's gender. Motivation is different between men and women, and this difference is significant ($p = 0.006$). Chances that a man be classified with low motivation are twice higher than in women.

Motivation had no significant correlation with age range ($p = 0.607$), educational background ($p = 0.408$), age at smoking initiation ($p = 0.510$), family income ($p = 0.116$); amount of tobacco smoked a day ($p = 0.077$); and the anxiety ($p = 0.072$) and depression scales ($p = 0.293$).

DISCUSSION

Tobacco smoking is a disease of complex treatment. Most smokers show peculiar characteristics and are often among specific populations that demand differentiated attention. A careful evaluation of patients seeking treatment is of primordial importance to suit the various strategies for treatment.

In this sample, 59% of patients quit smoking at the end of the fourth session of treatment, 34% of patients were classified with likely level for anxiety and 28% with

Table 3. Level of anxiety as to sociodemographic variables

| | | Anxiety scale (HAD) | | | Total | Chi-square test (p-value) |
|--------------------------------------|---------------|---------------------|------------|------------|--------------|---------------------------|
| | | Unlikely | Possible | Likely | | |
| | | n | n | n | n | |
| Gender | Male | 192 | 130 | 93 | 415 | 0.000 |
| | Female | 192 | 268 | 327 | 787 | |
| | Total | 384 | 398 | 420 | 1,202 | |
| Age range | Under 30 y | 54 | 59 | 50 | 163 | 0.008 |
| | 31 to 40 | 67 | 76 | 102 | 245 | |
| | 41 to 50 | 124 | 146 | 152 | 422 | |
| | 51 to 60 | 89 | 90 | 89 | 268 | |
| | 61 and above | 50 | 27 | 27 | 104 | |
| | Total | 384 | 398 | 420 | 1,202 | |
| Income range in minimum wages | Under 1 MW | 37 | 58 | 65 | 160 | 0.039 |
| | 1 to 1.99 MW | 61 | 58 | 64 | 183 | |
| | 2 to 3.99 MW | 33 | 43 | 43 | 119 | |
| | 4 to 5.99 MW | 16 | 13 | 12 | 41 | |
| | 6 to 7.99 MW | 14 | 8 | 5 | 27 | |
| | 8 MW or above | 21 | 21 | 10 | 52 | |
| | Total | 182 | 201 | 199 | 582 | |
| Educational background | Illiterate | 16 | 18 | 36 | 70 | 0.001 |
| | Elementary | 155 | 167 | 200 | 522 | |
| | High school | 157 | 148 | 144 | 449 | |
| | Higher educ. | 48 | 58 | 33 | 139 | |
| | Total | 376 | 391 | 413 | 1,180 | |
| Age at the smoking initiation | Under 10 y | 28 | 26 | 41 | 95 | 0.057 |
| | 11 to 20 y | 282 | 317 | 327 | 926 | |
| | 21 to 30 y | 43 | 28 | 26 | 97 | |
| | Above 30 y | 5 | 9 | 6 | 20 | |
| | Total | 358 | 380 | 400 | 1,138 | |
| Amount of tobacco (cigarettes) a day | Less than 20 | 231 | 252 | 242 | 725 | 0.253 |
| | More than 20 | 96 | 90 | 114 | 300 | |
| | Total | 327 | 342 | 356 | 1,025 | |

likely level for depression. Motivation was high in 51% of cases. Regarding anxiety and depression, this rate is considered high when compared to other studies, such as Mc Clave et al., who found 14.9% of patients diagnosed with anxiety and 20.3% with diagnosis of depression. Women showed levels of anxiety and depression higher than men, as already noticed by other authors, whose findings show that it's nearly twice as high when compared to men¹⁰. Another relevant fact was that women are more motivated to quit smoking than men, although it is known that men have higher rates of cessation than women in the smoking cessation treatment. The probable levels of

depression and anxiety were also more prevalent in female patients and in those with lower education. Inasmuch as psychiatric comorbidities are related to the worst indices of smoking cessation, this fact reinforces the data shown in the study by Ferguson et al.¹¹, in which some successful predictors of smoking abstinence were found, such as: male gender, higher education level, higher motivation, absence of psychiatric comorbidity symptoms and less depression symptoms.

The relationship between tobacco and poverty was, as a vicious cycle, has already been well documented. In most countries there is an association between smoking,

Table 4. Level of anxiety as to sociodemographic variables

| | | Motivation (Richmond test) | | | Total | Chi-square test (p-value) |
|--------------------------------------|-------------------------|----------------------------|----------|------|-------|---------------------------|
| | | Low | Moderate | High | | |
| | | n | n | n | n | |
| Gender | Male | 32 | 183 | 204 | 419 | 0.006 |
| | Female | 29 | 334 | 426 | 789 | |
| | Total | 61 | 517 | 630 | 1,208 | |
| Age range | Under 30 y | 7 | 73 | 82 | 162 | 0.607 |
| | 31 to 40 y | 13 | 103 | 129 | 245 | |
| | 41 to 50 y | 16 | 187 | 223 | 426 | |
| | 51 to 60 y | 16 | 116 | 138 | 270 | |
| | 61 and above | 9 | 38 | 58 | 105 | |
| | Total | 61 | 517 | 630 | 1,208 | |
| Income range in minimum wage | Less than 1 MW | 7 | 67 | 86 | 160 | 0.039 |
| | 1 to 1.99 MW | 8 | 74 | 102 | 184 | |
| | 2 to 3.9 MW | 10 | 53 | 56 | 119 | |
| | 4 to 5.99 MW | 4 | 14 | 23 | 41 | |
| | 6 to 7.99 Mw | 3 | 15 | 9 | 27 | |
| | Total | 35 | 254 | 295 | 584 | |
| Educational background | Illiterate | 4 | 32 | 34 | 70 | 0.408 |
| | Elementary | 26 | 211 | 283 | 520 | |
| | High school | 21 | 196 | 236 | 453 | |
| | Higher education | 9 | 71 | 61 | 141 | |
| | Total | 60 | 510 | 614 | 1,184 | |
| Amount of tobacco a day (cigarettes) | Less than 20 cigarretes | 30 | 323 | 374 | 727 | 0.077 |
| | More than 20 cigarettes | 21 | 118 | 163 | 302 | |
| | Total | 51 | 441 | 537 | 1,029 | |
| Age range at smoking initiation | Under 10 y | 5 | 32 | 59 | 96 | 0.510 |
| | 11 to 20 y | 47 | 406 | 477 | 930 | |
| | 21 to 30 y | 5 | 41 | 52 | 98 | |
| | 30 y and above | 1 | 6 | 13 | 20 | |
| | Total | 58 | 485 | 601 | 1,144 | |
| Depression scale (HAD) | Unlikely | 24 | 245 | 313 | 582 | 0.293 |
| | Likely | 18 | 143 | 184 | 345 | |
| | Probable | 18 | 125 | 128 | 271 | |
| | Total | 60 | 513 | 625 | 1,198 | |
| Anxiety scale (HAD) | Unlikely | 22 | 153 | 209 | 384 | 0.072 |
| | Likely | 11 | 186 | 201 | 398 | |
| | Probable | 26 | 175 | 217 | 418 | |
| | Total | 59 | 514 | 627 | 1,200 | |

low income and low educational level. In Brazil, among groups of individuals with low level of education, the likelihood of their becoming smokers is five times higher than individuals who have graduated from university¹². It is also known that depressive disorders are more common in women and in people with lower incomes and lower level of education¹³. In this study, in addition to smoking, patients with lower income and lower education also had a higher likelihood for anxiety and depression. Cigarette smoking is associated with the possibility of pleasure and anxiety relief, as exemplified by Rondina et al.¹⁴: some depressed smokers may use smoking to relieve their negative feelings.

In this study, the smoking initiation age confirms data in the literature: the majority started smoking in adolescence, a phase of life when group influences, rebellion and self-assurance are present. These findings coincide with the studies by Levy et al.¹⁵ and Pedersen¹⁶, in what regards the strong association between the smoking initiation in adolescence and the subsequent appearance of symptoms of depression. These authors also found a strong association between the smoking initiation age and anxiety. Smoking in adolescence seems to be a starting point for further psychopathologies, because this phase of life is a period of higher neural vulnerability to the effects of nicotine on the synaptic function and brain development¹⁷.

As to the data in this study, a tendency between the likely level of anxiety and smoking initiation age ($p = 0.057$) was observed. Another detail that draws attention was the absence of significant difference between amount of tobacco per day and the levels of anxiety and depression, which differs from literature. A study by Kang and Lee¹⁸ in Korea identified the presence of depression among 31.3% of people who smoked two packs or more a day and, among 18.7% of those who smoked, less than half a pack a day. This same study showed index of depression among non-smokers of 17.8%, which was lower than the one found among those who smoked less than half a pack or more than two packs a day. Other studies have shown that anxious and depressed patients tend to increase tobacco consumption as self-medication to minimize the symptoms¹⁷⁻¹⁸.

Patients suffering from likely anxiety and depression were aged between 41 and 50 years old. This data is corroborated by another study, in which the average age was 46 years old, which can also be an indicative of a period in life cycle characterized by important hormonal changes and, specifically in the case of women, the imminence of menopause¹⁹.

As previously mentioned, half of the smokers in this sample showed high level of motivation, regardless of the levels of anxiety and depression, but when we compared

the variables of this study to the level of motivation in the three levels of Richmond scale, there are some differences to be considered such as the moderate level of motivation presented by 84% of smokers who started smoking at ages from 11 to 20 years, in 41% of smokers with elementary education only and in 73.% of those who smoked up to 20 cigarettes a day. We found low levels of motivation in 44% of patients with likely level of anxiety and 30% with likely level of depression. In a study by Melo et al.²⁰, when comparing the motivational stages with anxiety and depression, attention is drawn to the fact that the higher scores of anxiety and depression, the less motivation and adherence to treatment. Our results were not consistent with this study, since no correlation was found between motivation and high levels anxiety and depression ($p = 0.072$ and $p = 0.293$).

The fact that the patients surveyed were seeking a place for treatment in one of the Reference Centers may have influenced the information related to motivation and this can be considered a factor liable to cause confusion in this variable. Another limitation of this study is that, when a test is applied, it refers only to that specific moment the person is living, and it may be under the influence of transitory situations and facts.

CONCLUSION

The study data suggest that about 30% of smokers who sought treatment at the Reference Centers in the Federal District showed likely levels of anxiety and depression. Among these, 50% were highly motivated to quit smoking. Women showed the highest likely levels of anxiety and depression; however, as for men, motivation for cessation is highlighted.

From these results, attention is drawn to the need of evaluating the motivation of patients and the preparation of the health care staff for early recognition of psychiatric comorbidities through the early detection of signs and symptoms, which can define a more appropriate treatment for smoking, thus increasing the rate of success.

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CONTRIBUTIONS

Maria Lima Suelita contributed to data collection, analysis and interpretation; Carlos Alberto de Assis Viegas contributed to the final writing and editing.

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Resumo

Introdução: Ansiedade, depressão e baixa motivação podem interferir no sucesso do tratamento do tabagismo. **Objetivo:** Avaliar o grau de ansiedade, depressão e motivação dos fumantes atendidos no Distrito Federal. **Método:** Estudo transversal, envolvendo 1.233 fumantes atendidos em 19 Centros de Referência. Instrumentos utilizados: *Hospital Anxiety and Depression Scale*, teste de motivação de Richmond e ficha com dados sociodemográficos. Para análise dos dados, foi utilizado, quando pertinente, teste *t* de *Student*, qui-quadrado e correlação de Spearman. **Resultados:** Mulheres apresentaram maiores graus de ansiedade ($p < 0,01$), depressão ($p < 0,01$), e de motivação ($p < 0,01$) para deixar de fumar, quando comparadas com os homens. Não houve diferença entre motivação e as variáveis sociodemográficas ($p > 0,05$). Baixa renda e baixa escolaridade foram associadas aos níveis de ansiedade ($p < 0,01$ e $p < 0,03$) e depressão ($p < 0,01$ e $p < 0,04$). Idade de início do tabagismo foi associada ao nível de depressão; quanto mais jovem o início do tabagismo, maior probabilidade de depressão ($p < 0,02$). Não houve correlação entre número de cigarros/dia e grau de motivação para deixar de fumar, com níveis de ansiedade e depressão. A motivação não foi associada aos níveis de ansiedade e depressão. **Conclusão:** Houve associação entre os níveis de ansiedade, depressão e tabagismo. Cerca de 30% dos fumantes apresentaram níveis prováveis de ansiedade e depressão; destes, 50% tinham motivação elevada para deixar de fumar, principalmente as mulheres. Esses achados apontam para a importância da avaliação desses sintomas e da motivação, no início do tratamento, para elevar as taxas de cessação.

Palavras-chave: Abandono do Uso de Tabaco; Ansiedade; Depressão; Motivação

Resumen

Introducción: La ansiedad, la depresión y la baja motivación pueden interferir con el éxito del tratamiento del tabaquismo. **Objetivo:** Evaluar el grado de la ansiedad, la depresión y la motivación de los fumadores atendidos en el Distrito Federal. **Método:** Estudio transversal que incluyó a 1.233 fumadores atendidos en 19 Centros de Referencia. Instrumentos utilizados: *Hospital Anxiety and Depression Scale*, test de motivación de Richmond y cuestionario de datos socio-demográficos. Para el análisis de los datos se utilizó, en prueba de su caso, el test de *t* de *student*, chi-cuadrado y correlación de Spearman. **Resultados:** Las mujeres tuvieron una mayor ansiedad ($p < 0,01$), depresión ($p < 0,01$), y un mayor grado de motivación ($p < 0,01$) para dejar de fumar en comparación con los hombres. No hubo diferencias entre la correlación de la motivación y las variables socio-demográficas ($p > 0,05$). Bajos niveles de educación y de ingresos bajos se asociaron con la ansiedad ($p < 0,01$ y $p < 0,03$) y depresión ($p < 0,01$ y $p < 0,04$). La edad de inicio del consumo del tabaco se asoció con el nivel de depresión, cuánto más joven es el inicio del acto de fumar, mayor el riesgo de depresión ($p < 0,02$). No hubo correlación entre el número de cigarrillos por día y el nivel de motivación para dejar de fumar, con niveles de ansiedad y depresión. La motivación no se asoció con la ansiedad y la depresión. **Conclusión:** En este estudio hubo una asociación entre los niveles de ansiedad, la depresión y el tabaquismo. Alrededor del 30% de los fumadores tenían probables niveles más altos de ansiedad y depresión, de los cuales 50% tenían una alta motivación para dejar de fumar, especialmente las mujeres. Estos resultados destacan la importancia de evaluar síntomas de depresión/ansiedad y la motivación en el inicio del tratamiento para elevar las tasas de cesación.

Palabras clave: Cese del Uso de Tabaco; Ansiedad; Depresión; Motivación