

ORIGINAL

How does smoking tobacco affect choosing a stable partner?

¿Cómo afecta el consumo de tabaco en la elección de pareja estable?

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Abstract

This study aimed to analyze the rejection towards smokers when considering a stable relationship. The sample included 445 participants who were recruited using the snowball method. A questionnaire created ad hoc was answered online by each participant. The effect of tobacco use was evaluated in choosing a stable partner, a stable partner to live with, and a stable partner to live with and have children. The results showed a significant rejection towards smokers for the different types of relationships. Statistically significant differences were found depending on the participants' educational background and tobacco use, and their partner's tobacco use. A higher level of rejection towards smokers was found in participants with university studies, in non-smokers, and those with a non-smoker partner. The main reasons for rejection were related to hygiene, health, and household economy. In conclusion, tobacco use can interfere with the establishment of a stable relationship. This argument could be added to the list of drawbacks associated with tobacco use for prevention and treatment.

Keywords: smoking, tobacco use, partner choice, prevention

Resumen

El objetivo de este estudio fue analizar el rechazo hacia los fumadores de cara al establecimiento de una relación de pareja estable. La muestra constó de 445 participantes que fueron reclutados mediante el método de bola de nieve. Se utilizó un cuestionario elaborado *ad hoc* que fue aplicado en línea de forma individual. Se evaluó la influencia del tabaquismo en la elección de pareja estable, estable con convivencia en el mismo hogar y estable con convivencia en el hogar e hijos en común. Los resultados mostraron un importante rechazo hacia personas fumadoras para los distintos tipos de relación. Se hallaron diferencias estadísticamente significativas en función del nivel de estudios, el tabaquismo de los participantes y el tabaquismo de sus parejas. Se encontró mayor nivel de rechazo hacia personas fumadoras en los participantes con estudios universitarios, en los no fumadores y en aquellos con pareja no fumadora. Los principales motivos de rechazo hicieron referencia a higiene, salud y gasto económico. En conclusión, el tabaquismo puede obstaculizar el establecimiento de una relación de pareja estable. Este argumento podría ser incorporado al listado de inconvenientes asociados al tabaquismo de cara a la prevención y el tratamiento.

Palabras clave: fumar, tabaquismo, elección de pareja, prevención

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Tobacco use is one of the major public health problems and is an important risk factor for the development of several health problems. It is related to approximately 8.7 million deaths per year, and the number is expected to increase (Global Burden of Disease 2019 Risk Factor Collaborators, 2020). In Spain, the daily prevalence of tobacco use is around 23% in men and 16% in women for the population older than 15 years old according to the European Health Survey (Instituto Nacional de Estadística, 2020a).

Contrary to the effects on health, the influence of tobacco use on social relationships and particularly on the choice of a partner has not been deeply studied. The results extracted from these studies could improve preventive and therapeutic interventions, as they provide knowledge that helps reduce social acceptance and sensitize society, thus generating a culture of tobacco rejection (Amigo, Álvarez & Secades-Villa, 2018; González-Roz, Secades-Villa, Martínez-Loredo & Fernández-Hermida, 2020; Vincke, 2016). In this context, the benefits of being in a relationship for health should be highlighted (for a review, see Berli, Schwaninger & Scholz, 2021; Perelli-Harris et al., 2018; Umberson & Montez, 2010).

Several studies have pointed to the role of tobacco use as a barrier to establishing a stable relationship in smokers. In this sense, a higher preference for non-smokers has been reported (Goldstein, 1991), a lower willingness from non-smokers to marry smokers (Dillard, Magnan, Köblitz & McCaul, 2013), and a lower attractiveness of smokers as a possible long-term partner (Vincke, 2016). Within other contexts with a culture of tobacco use rejection, such as in the United Arab Emirates or India, health-related reasons aside, there is a majority refusal to marry smokers (Bello et al., 2012; Sreedharan, Muttappallymyalil & Divakaran, 2010).

The focus has been placed on sporadic relationships as well. Thus, a lower willingness from non-smokers to date smokers has been reported (Dillard et al., 2013), a lower willingness to go out with smokers (Peretti-Watel, Legleye, Guignard & Beck, 2014), and less attractiveness of smokers as a possible short-term partner (Vincke, 2016). A recent report shows that even if the relationship is casual and intimate, the use of tobacco has a negative influence; pointing to bad breath, smell, or tobacco smoke as the main reasons (Amigo et al., 2018).

The previous literature is scarce and there are questions that need further investigation. Previous studies have not adequately answered the question of what effect tobacco use can have on choosing a stable partner. They have not focused on the different factors where tobacco use can condition a relationship, such as living in the same home or having children together. Furthermore, the reasons for the possible rejection towards smokers have not been explored. Finally, it should be noted that some of the studies carried out refer to specific cultural contexts in which the results

may not be generalizable to other populations, in which the culture regarding tobacco use is different.

The main objective of this study was to analyze the influence of tobacco use on the choice of a stable partner. The specific aims were: (1) analyze rejection for each type of partner relationship: a stable partner, a stable partner to live with, and a stable partner to live with and have children; (2) analyze the relation between the rejection and different sociodemographic variables (age, gender, educational level, tobacco use of the participant and tobacco consumption of their partner); and (3) explore the reasons related to the rejection towards smokers. Our main hypothesis is that tobacco use affects the probability of being rejected when people choose a stable partner. Moreover, the reasons of rejection toward smokers will differ if considering other elements involved in the relation, such as cohabitation or having children in common.

Method

Participants

The sample included 445 participants ($M = 25.41$ years; range = 18-69 years) recruited through the snowball method. The country of residence was Spain for the 97.75% of the participants, followed by United Kingdom and Mexico with 0.45% each one, by last France, Germany, Poland, Ireland, Italy and Venezuela with 0.22% each one. The sample was divided into two age groups, under and over 30 years of age, considering that from the age of 30 the establishment of a stable relationship is more relevant.

Table 1
Descriptive statistics of the sample

Variable	<i>n</i>	Percentage
Gender		
Women	278	62.5%
Men	167	37.5%
Age		
Under 30 years	389	87.4%
Over 30 years	56	12.6%
Educational level		
University studies	360	80.9%
High school studies	64	14.4%
Middle school studies	20	4.5%
Primary school studies	1	0.2%
Tobacco use		
Non-smokers	297	66.7%
Ex-smokers	52	11.7%
Smokers	96	21.6%
Relationship status		
With couple	276	62.0%
Singles	169	38.0%
Partner's tobacco use		
Non-smoker	207	75.0%
Smoker	69	25.0%

In Spain, country of residence of the vast majority of the sample, according to 2020 data from the National Institute of Statistics, the average marriage age is 38.83 years old, and that of the first child is 31.22 years old (Instituto Nacional de Estadística, 2020b; Instituto Nacional de Estadística, 2020c). The descriptive data of the sample are collected in Table 1.

Instruments and procedure

An ad hoc questionnaire was created. It collected the following data: age, gender, country of residence, educational level, participant's tobacco use, partner's tobacco use, and rejection to the establishment of the different types of couple relationship, together with the reasons for this rejection. This objective categorization of relationship components avoided more complex cultural referents or legal terms, such as marriage. The items referring to the reasons for rejection were of non-mandatory answer.

Items related to rejection appeared first. There were statements such as “If a person smoked it would negatively affect me, to the point of rejecting the beginning of a stable relationship with them.” The answer modality was using a five-point Likert-type scale that reflects the degree of agreement, from 1 (“Strongly disagree”) to 5 (“Strongly agree”). Next, a multiple-choice question about the reasons for rejection was posed.

The questionnaire was applied online individually, using *Google Forms*, and spread through social networks under the name of “Survey on tobacco use”. Participation was voluntary and unpaid. The participants were informed about the anonymity, confidentiality, and subsequent use of the data. Before collecting the answers, the research was approved by the Research Ethics Committee of the Principality of Asturias (reference assigned: TFG/26/18).

Data analysis

The rejection differences considering the different variables measured by the Likert scale were analyzed using ANOVA. Corrections of the DMS and Games-Howell type for multiple post hoc comparisons were used, according to the compliance of the principle of homoscedasticity. Rejection and related reasons were analyzed using frequency analysis. The researchers dichotomized the Likert rejection variables scale. The purpose of the transformation was to improve the interpretation of the results by presenting global percentages of rejection and provided reasons of those participants who rejected smokers. For this, responses greater than 3 on the Likert scale, those that reflected agreement with the statement, were considered as rejection. This type of transformation procedure was supported by previous literature (Jeong & Lee, 2016). The statistical package used was SPSS Version 27 (IBM Corp., Armonk, NY, 2020).

Table 2
Rejecting level toward smokers according the types of relationships

Variable	Stable partner		Stable partner to live with		Stable partner to live with and have children	
	<i>M (SD)</i>	test stat. (<i>p</i>) effect size stat.	<i>M (SD)</i>	test stat. (<i>p</i>) effect size stat.	<i>M (SD)</i>	test stat. (<i>p</i>) effect size stat.
Gender						
Men	3.0 (1.3)	1.879 ^a (0.061)	3.0 (1.4)	0.647 ^a (0.518)	2.9 (1.5)	0.451 ^a (0.652)
Women	2.7 (1.4)	1.369	2.9 (1.4)	1.419	2.8 (1.5)	1.470
Age						
Under 30 years	2.9 (1.4)	0.436 ^a (0.730)	3.0 (1.4)	0.187 ^a (0.819)	2.9 (1.5)	0.943 ^a (0.681)
Over 30 years	2.8 (1.5)	1.374	2.9 (1.5)	1.419	2.7 (1.5)	1.469
Educational level						
University studies	3.0 (1.3)	8.233 ^b (<0.001) ^{d, e}	3.1 (1.4)	7.734 ^b (<0.001) ^{d, e}	3.0 (1.5)	6.189 ^b (0.002) ^{d, e}
High school studies	2.3 (1.4)	0.040	2.5 (1.4)	0.038	2.4 (1.5)	0.031
Middle school studies	2.3 (1.3)		2.4 (1.3)		2.3 (1.2)	
Tobacco use						
Non-smoker	3.3 (1.2)	77.036 ^c (<0.001) ^{f, g, h}	3.4 (1.3)	79.753 ^c (<0.001) ^{f, g, h}	3.2 (1.4)	33.787 ^c (<0.001) ^{f, g, h}
Ex-smoker	2.6 (1.3)	0.268	2.8 (1.3)	0.265	2.6 (1.3)	0.133
Smoker	1.6 (0.9)		1.6 (1.0)		1.9 (1.2)	
Partner's tobacco use						
Non-smoker	3.2 (1.4)	5.857 ^a (<0.001) ⁱ	3.3 (1.4)	5.614 ^a (<0.001) ⁱ	3.1 (1.5)	3.802 ^a (<0.001) ⁱ
Smoker	2.2 (1.2)	1.350	2.2 (1.2)	1.380	2.4 (1.3)	1.426

Note. ^at-test. ^b Analysis of variance (ANOVA) following post-hoc test corrected by DMS. ^c Analysis of variance (ANOVA) following post-hoc test corrected by Games-Howell. ^d University studies > High school studies ($p < 0.05$). ^e University studies > Middle school studies ($p < 0.05$). ^f Non-smoker > Ex-smoker ($p < 0.05$). ^g Non-smoker > Smoker ($p < 0.05$). ^h Ex-smoker > Smoker ($p < 0.05$). ⁱ With non-smoker partner > With smoker partner ($p < 0.05$). Effects sizes correspond to Cohen's *d* for t-test analyses and partial eta-squared (η^2) for ANOVA analyses.

Results

Out of the total number of participants, 40.04% would reject a smoker for a stable relationship, 42.90% would reject them if it included living together, and 38.90% if it implies having children as well.

Statistically significant differences were found in the level of rejection according to the different variables (Table 2). No differences were found in gender or age. Regarding educational level, a significantly higher rejection was found in participants with university studies than with high school studies and with secondary studies. Concerning tobacco use, non-smokers presented a significantly higher rejection than ex-smokers and smokers; ex-smokers also presented a greater rejection than smokers. Lastly, the participants with a non-smoking partner showed a significantly higher rejection than those with a smoking partner.

The main reasons for rejection towards smokers for the different types of couple relationships refer mainly to health, hygiene, and household economy (Table 3). The percentages correspond to subjects that showed rejection

toward smokers in each different type of relation, with a report criterion of more than 20% of the received responses.

Discussion

The main aim of this study was to analyze the influence of tobacco use on the choice of a stable partner. Following our main aims, the results showed that: (1) there is a rejection towards smokers as stable partners, especially if considering living with and having children in common; (2) the highest rates of rejection towards smokers are among participants with university studies, non-smokers, and those with a non-smoking partner; and (3) the main reasons for rejection are health, hygienic and household economy.

The findings showed how around 40% of participants would reject having a stable relationship with a smoker. Specifically, 40.04% of participants would reject them for a stable relationship, 42.90% if it includes living together and, 38.90% if it also implies having children together. This follows the direction of previous studies, in which participants overwhelmingly preferred non-smokers as a stable partner (Goldstein, 1991). In addition, the percentage of rejection towards non-smokers increases from a stable relationship to a relationship that includes living in the same home. That is, when there is a factor that implies a higher level of involvement in the relationship, the rejection towards smokers increased. This increase was not reflected when, in addition to coexistence, the relationship implies having children. Despite this, the rejection percentages show continuity for the different types of relationships.

Previously, in regards to a casual and intimate relationship, it was found that for around 3.5% of smokers, 27% of ex-smokers, and 42% of non-smokers, the fact that a person smokes would have a negative effect (Amigo et al., 2018). This result contrasts with those obtained, which places the rejection percentage for the entire sample at around 40% for the different types of stable relationships. Thus, the rejection of smokers in the general population was located in these types of relationships, which imply long-term commitment and other associated elements, in values similar to those found only in the non-smokers group in the case of occasional relationships. In addition, these percentages in rejection contrast with the preference towards smokers of around 11% for a casual and intimate relationship found in the previous study, a figure that despite being low could be reflecting that there is a certain attraction towards people smokers. Thus, although it is possible that tobacco is a short-term pairing strategy in some cases (Vincke, 2016), this seems to be ruled out when it comes to establishing a long-term relationship.

On the other hand, the fact that a person smokes or not seems to have an important influence on their preferences when choosing a partner. The results showed a greater rejection

Table 3
Main reasons for rejecting smokers

Reasons	Response percentage
Stable partner	
responses, <i>N</i> = 178	
Tobacco smell	83.71%
Tobacco breath	78.65%
Partner's health	72.47%
Tobacco smoke	71.35%
Own health	69.66%
Household economy	26.40%
Leaving leisure facilities to smoke	26.40%
Stable partner to live with	
responses, <i>N</i> = 185	
Tobacco smell	85.95%
Tobacco smoke	81.08%
Own health	78.92%
Partner's health	75.14%
Tobacco breath	71.35%
Household economy	44.32%
Leaving leisure facilities to smoke	24.32%
Stable partner to live with and have children	
responses, <i>N</i> = 169	
Children's health	95.27%
Learning of smoking behavior	75.74%
Partner's health	64.50%
Tobacco smell	66.27%
Own health	62.72%
Tobacco smoke	62.72%
Tobacco breath	54.44%
Household economy	38.46%
Leaving leisure facilities to smoke	21.89%

towards smokers by non-smokers, which was reduced in ex-smokers and even more in smokers. These results are similar to those previously found, where non-smokers mostly preferred a non-smoker while smokers were indifferent to tobacco use (Goldstein, 1991). Likewise, participants with a non-smoking partner showed a higher level of rejection towards smokers than those with a smoking partner. Some nonsmokers may have a lower prior tolerance towards tobacco use, or the attitude towards tobacco may become more tolerant as the relationship with a smoker develops.

Regarding the differences depending on the educational level, there is a greater rejection from the participants with university studies, followed by those with high school and middle school studies. It is possible that tolerance to tobacco is directly related to the level of education, as occurs with the use itself, which according to statistics is more prevalent in people with a secondary education level (Instituto Nacional de Estadística, 2020a).

The most frequent reasons for rejection towards smokers were those related to health (own, partner's, or children's), hygienic reasons (smell, smoke, and breath), and household economy. Economic spending becomes more important to a greater number of aspects involved in the relationship if it includes living together in the same home and even more so if it involves having children in common. The learning of smoking behavior by children affects in an important way when it comes to a relationship that involves having children together. The other aspects present greater stability among the different types of relationships. These results contrast with those found for a casual and intimate partner relationship, where the reasons for negative influence referred to hygiene, and those related to health were left in the background (Amigo et al., 2018).

From a gender perspective, it is worth highlighting the absence of differences in the variables studied. In any case, future analyzes should delve into the qualitative aspects in which there could be remarkable gender aspects, such as the influence of the partner's tobacco use during pregnancy (Míguez & Pereira, 2020). On the other hand, no transgender or gender non-binary people responded to the questionnaire. Future studies should take this aspect into account in their sampling strategy. Another aspect non-addressed in this work is whether there is an implication of sexual orientation in the influence of smoking on the choice of partner.

The main limitation of this study is that snowball sampling does not always guarantee the representativeness of the sample. This method poses problems of sample diversity (for a review, see Kirchherr & Charles, 2018). Remarkably, the analyzed sample has a higher percentage of women than men. Moreover, has more people with university studies than without them. These facts compromise the generalizability of the obtained results. Secondly, the employed questionnaire is not validated. Furthermore, there

are limitations due to the use of questionnaires in the health research that should be considered, particularly when online surveys are used (for a review, see Andrade, 2020). Another aspect to consider is that the age classification in analyses is established considering sociodemographic statistics of the main population studied. Future research should ask the participants if being in a relationship is truly important for them at the time of evaluation, as a control variable, and for classification proposes. Lastly, the level of tobacco use of the participants has not been taken into account, which could report differences between the smoking participants. Finally, there may have been an underestimation regarding the establishment of a stable relationship with children in common, the wording of the item may have led to the understanding that the question referred to having children in a stable relationship in which previously there was a coexistence.

It is also important to note the contrast of the findings with respect to other cultural contexts in which there is a large majority rejection towards smokers when establishing a relationship (Bello et al., 2012; Sreedharan et al., 2010). These cultures of rejection, which do not necessarily respond to health criteria, contrast with the culture of a higher tobacco use acceptance that exists among the Western society, specifically in Spain. This culture needs a change aimed at reducing this social acceptance and raise awareness about the health problems that tobacco use generates (Amigo et al., 2018; González-Roz et al., 2020; Vincke 2016). In the case of the current study, the differences between countries or regions of residence were not possible. For future research, international sampling and between regions analyses could be addressed.

In terms of generalizability, the interpretation of the findings must be cautious. The sample is mainly of women and persons with universities studies. In this sense, also to prevent inadequate interpretations, effect sizes have been included in the reported results.

In conclusion, the results of the study indicate that tobacco use can challenge a stable relationship. Thus, the relevance of the research comes from the possible direct implications of the results as arguments for prevention and treatment. This type of social argument has extensive implications due to the link between health and having a partner (for a review, see Berli et al., 2021; Perelli-Harris et al., 2018; Umberson & Montez, 2010). This argument could be added to the list of inconveniences associated with tobacco use. This kind of strategy centered in the social relations could be put into practice and compared with the current more centered on the effects of tobacco use on physical and mental health. It should be considered especially between the ages that represent the critical stage in the consolidation of tobacco addiction, between 13 and 20 years old (Amigo, 2020); and in older people, when aspects of coexistence and children in common are included.

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Conflict of interests

The authors declare no competing interests.

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