

ATTITUDES OF PREGNANT WOMEN AND THE GENERAL POPULATION TOWARDS PSYCHOACTIVE SUBSTANCE USE DURING PREGNANCY

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Permissive and restrictive attitudes concerning the use of psychoactive substances and medication without prescription during pregnancy and breastfeeding were investigated. Participants in the general population (n=172) and pregnant women (n=137) answered a questionnaire about contexts in which a pregnant or breastfeeding woman could use psychoactive substances and medication or not. The majority chose to restrict the use of these substances. Participants who allowed consumption indicated lower frequency or dosage. Among the pregnant women, a discrepancy was found between attitudes and behavior, as part of them smoked during pregnancy, despite their restrictive attitude.

Descriptors: Attitude; Pregnancy; Lactation; Behavior, Addictive.

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ATITUDES DE GESTANTES E DA POPULAÇÃO GERAL QUANTO AO USO DE SUBSTÂNCIAS DURANTE A GESTAÇÃO

Investigaram-se atitudes permissivas ou restritivas ao uso de substâncias psicoativas (SPA) e medicações sem prescrição, durante a gestação e a amamentação. Os participantes da população geral (n=172) e gestantes (n=137) responderam uma enquete sobre cenários nos quais uma gestante e uma lactante poderiam ou não consumir SPAs e medicações. O uso de SPAs e medicações foi restringido pela maioria. Dentre os participantes que permitiram o consumo, esse deveria ser em frequência e/ou doses menores. Dentre as gestantes, houve discrepância entre atitudes e comportamento, pois parte das gestantes fumou durante a gestação, mesmo tendo atitude restritiva.

Descritores: Atitude; Gravidez; Lactação; Comportamento Aditivo.

ACTITUDES DE LAS EMBARAZADAS E DE LA POBLACIÓN GENERAL RESPECTO AL USO DE SUSTANCIAS PSICOACTIVAS DURANTE EL EMBARAZO

Fueron investigadas actitudes de permisión o restricción del uso de sustancias psicoactivas (SPAs) y medicamentos sin prescripción durante el embarazo y la lactancia. Los participantes de la población general (n=172) y embarazadas (n=137) contestaron una encuesta acerca de escenarios en los cuales una embarazada y una lactante podrían o no consumir SPAs y medicaciones. El uso de SPAs y medicamentos fue restringido por la mayoría. Entre los participantes que permitieron el consumo, este debiera ser con frecuencia y/o dosis menores. Entre gestantes, hubo discrepancia entre actitudes y comportamiento, pues parte de ellas fumó durante el embarazo, mismo teniendo actitud restrictiva.

Descriptorios: Actitude; Embarazo; Lactancia; Conducta Adictiva.

Introduction

The use of psychoactive substances (SPA) and medication against medical advice, during pregnancy, represent a specific area in the research about chemical dependency and deserves special attention, due to its consequences, they might be also extreme to the fetus' health, to a point which they can remain present throughout the individual's entire life who was exposed to SPAs while still in the womb⁽¹⁻²⁾.

Despite the known damage to the fetus' health, from concerning epidemiological data, in consistent studies, it is possible to assume that there is certain permission in the consumption of SPAs and medication without professional guidance, during pregnancy and breast feeding. The

environment these pregnant women live in or frequent can influence their habits, acting as an important regulator, directly or indirectly stimulating, or reprimanding the use of SPAs⁽³⁾.

To know what they think, feel and do about such habit, in concepts such as "good" and "bad", "desirable" and "undesirable", "avoid" or "seek" is understood as attitude. This concept came from the field of Social Psychology, consisting from the result of an assessment, which generates a representation on the mind that in its own right, affects the way and how a behavior is predicted⁽⁴⁾.

If to modify a behavior, there is a need to understand the attitudes coming from such behavior⁽⁴⁾, in order to

better plan effective preventive actions, it is necessary to know the actions of the general populations as well as pregnant women, regarding the habit of consuming SPAs during pregnancy and breast feeding. Pregnancy is, typically, the period for changes in patterns of behavior and consumption of SPAs, and therefore, it is important to know what does the general population think about the use of SPAs during pregnancy, as well as the way this applies to pregnant women, if what they think corroborates with what the general population understands and what they know from a medical stand point.

Attitudes related to the use of SPAs during pregnancy

Although attitude is defined as the combination of beliefs, feelings and behaviors, the affirmation that such elements must be consistent between them is very questionable, since it is possible to think a certain way, a not always act coherently and consistently with such way. How much an attitude enables predicting behavior will depend on the characteristics of the individual, the situation and the attitude itself; and its evaluation does not occur easily. Besides, attitudes may vary according to the strength of the associations of the object in the memory⁽⁴⁾.

Even if, a pregnant or lactating woman considers that she must not be using SPAs, the concept of attitude enables conveying that it is possible to think this way, and also, use SPAs at the same time. That is, when there is attitude, a discrepancy between thinking and behaving can be present, product defined as ambivalence. If the attitude depends on several factors, it is known that smoking women or with smoking partners, living in less favored locations economically, are more tolerant to smoking during term. Besides, women that smoke tend not to perceive the dangers of smoking during pregnancy as particularly relevant to self, while they understand restriction as something exaggerated from anti-smoking society⁽⁵⁾. Advice from family and friends can also contribute to attitude formation, especially when the perception of risk is underrated by women⁽³⁾. It is possible that the same applies to information obtained from other sources, like governmental campaigns, internet and doctor's advice.

Public institutions linked to healthcare policies and non-governmental organizations (NGO), at times working together, have been developing a series of campaigns to prevent and fight drug use. Such campaigns can have a combative characteristic, involving interventions, in which the focus is scaring, the scientific, moralist or support; or a positive characteristic, approach that uses strategies that count on the strengthening of the individual and his/her insertion into a group⁽⁶⁾. Independently from the applicable criticism to each approach, what is concluded is that there is an effort being made from these institutions and non-governmental organizations to reduce; fight and prevent drug use in general. The population has access to such campaigns and understands that management must be, perhaps more than any other condition, preserved from the use of SPAs. One of the substances in which the combat is more evident is cigarette.

In Brazil, beginning in the 90's, the Ministry of Health, through the National Cancer Institute, implemented actions of an inter-sectional nature and nationwide to control the social and economic determinants of expansion in tobacco consumption, with the objective of reducing the prevalence in smokers and the consequent morbid-mortality; this has occurred using strategies that involved reduction in starting smoking and increase in quitting among dependants⁽⁷⁾.

Some positive results have enabled the validation of such institutions for the prevention of the use of SPAs during pregnancy. These authors investigated the impact of images with sanitary warnings in cigarette packs, developed by the Brazilian program of tobacco control, using a taskforce for studies of emotion and behavior, comparing the images of the program with the control images. The image that presented a pregnant woman smoking was considered too aversive even among smokers, being that the image that showed a (non-pregnant) woman smoking did not have the same judgment⁽⁸⁾.

Among other effects, the campaigns helped spread information regarding the consequences of these types of consumptions, reaching not only pregnant women, but their family members and their community. And, if people convey that the message of any campaign has high personal relevance, their attention to the message, as well the search for information on the issue, has the tendency to grow. In a Norwegian study, a significant reduction was seen in the use of alcohol during pregnancy, as well as change in attitudes in relation to alcohol consumption, during this stage in life, towards restriction, concomitant to the development of the prevention campaign promoted by a National institution⁽⁹⁾.

Independently from the governmental efforts or not, the SPAs and medication without professional guidance are still being consumed by pregnant women in rates that can be considered alarming. Starting from the importance of the data related to the consumption widely exposed in literature, despite the known damages for development, cause by SPAs during pregnancy and breast feeding; and considering the attitudes can frequently be priors for the behaviors⁽⁴⁾, the objective of the present study was to know the attitudes in relation to the consumption of SPAs, during pregnancy and breast feeding, as well as in the general population and pregnant women, if restrictive or permissive, and if permissive, what is the nature of this permissiveness, if it is in relation to frequency, to quantity or to the type of substance or a combination between them. The investigation of such elements must enable other developments and base consequent interventions that can show effectiveness in the supporting quitting and the prevention of smoking during pregnancy.

Methods

Data collection for the present study occurred in two stages, the first in 2007, in which one sample from the general population was investigated, and the second in 2008, with a sample only from pregnant women. In both stages of the study, the selection of the sample used

a criterion of cohabitation. The participants of the general population were invited to take part in the study in several environments, while the pregnant women were invited in a waiting room at a doctor's office for pre-natal care, in two public hospitals in the city of Porto Alegre, RS; they have authorized the application of the survey with the approval of the Hospital's own Ethics Committee in Research.

Participants

The sample from the general population consisted of 172 people from 15 to 75 years old (mean=38; dp=15). Women were 54.4% of the sample, and 31.4% of the interviewees completed high school. When investigating the habits related to the consumption of SPAs, it was revealed that 25.6% of the sample has only the habit of consuming alcoholic beverages and 10% defined themselves as smokers; uniquely, ten per cent of the sample drink and smoke (55.2% are males). It was also investigated, the number of subjects that use medication without medical prescription, finding 1.2%. Forty-six percent of the sample does not use any substance. Of the total subjects that revealed the consumption of alcoholic beverages, 52.3% are women, as well as from the total of smokers, 58.8% are women. However, women are the majority of those that do not use any type of SPAs (62.5%). Some of the participants of the general population were the escorts of the pregnant women in their pre-natal appointment.

The sample related to the second stage of the study consisted by 137 pregnant women with the ages from 18 to 43 years old (mean=28.17; dp=6.28). Regarding their education, 36% of the pregnant women had incomplete elementary school, and 19.1% presented completed elementary school. With complete high school 30.5%, while 9.9% presented incomplete college. We also investigated, the trimesters of the pregnancy, being that 20.6% of the pregnant women were within the first trimester, 35.3% in the second and 44.1% in the third. The habits related to the consumption of SPAs were investigated two ways, the first in a general manner and the second during pregnancy. Among the pregnant women, generally, 4.4% confirmed the use of alcoholic beverages and 7.3% smoke, while 2.9% affirmed smoking and drinking. During pregnancy, 14.6% of the pregnant women confirmed having consumed some quantity of alcoholic beverages, beer being the most consumed beverage (52.6% of the pregnant women revealed drinking alcoholic beverages), being that, from these women, restricted consumption to special occasions (81.3%) or on Sundays (12.5%). When investigating the consumption of cigarettes during pregnancy, 17.5% of the pregnant women confirmed consuming them, half of these women restricting consumption to one or two cigarettes a day and 38.9% of them consumed up to half a pack per day.

Instrument

The instrument used to investigate the attitudes in relation to the consumption of SPAs, during pregnancy, in the sample of general population was a self-applied survey

to verify how permissive the participant is regarding the consumption of alcoholic beverages, cigarettes and other drugs, during the pregnancy and breast feeding stages. For such, questions were elaborated that offered some scenarios. In the case of alcoholic beverages, the scenarios of special occasions were presented (weddings, birthdays and new-year's celebration), Sunday lunches and daily meals, associated to the possibility of consuming alcoholic beverages or not and; in case the participant thinks that the pregnant women would do it in any of these occasions (or in all of them), or type(s) of beverage(s) and the quantity. The same scenarios were placed for the hypothesis of a mother breast feeding. It was also investigated if the participants think that a pregnant women or lactating can consume cigarettes, medication without prescription and illegal drugs and, if positive, with what frequency and which quantity. Alternatives of answers were offered that predicted if the pregnant women or lactating was consuming the substance in question just like before getting pregnant, they were: could consume, could consume as long as in lower quantities and/or a beverage considered "weaker", or not consuming. The instrument used to investigate the attitudes in relation to the consumption of SPAs, during pregnancy in the pregnant sample, it was the same to the one presented for the general population sample, with added question about the trimester of the pregnancy, if the pregnant women consumed alcoholic beverage in the present pregnancy, if positive, what type of beverage, the quantity and the frequency. it was also investigated if the pregnant women smoked or consumed medication without prescription, in the present pregnancy.

Results

The data was submitted to analysis of frequency. Highlights for the present sector, the data that were significant, considered among them and in relation to the available scientific literature. The hypothesis of the consumption of alcoholic beverages in special occasions, on Sundays and daily was analyzed; the consumption of cigarettes, the use of medication without a medical prescription and the use of illegal drugs during pregnancy was also analyzed.

Consumption of alcoholic beverages in special occasions

From the general population sample, 71.8% of the participants think that a pregnant woman should not consume alcoholic beverages in special occasions. From the sample that think pregnant women could consume them, 27.7% understand that a pregnant woman can consume; as long as it is in lower quantity than usual (11.8%) or "weaker" beverages (12.4%). Sixty percent of the participants answered that a pregnant woman could consume alcoholic beverages, as long as considered "weak", were women. From the participants that think women should not consume any alcoholic beverage, 53.3% are women. Among the participants that are permissive to the consumption of alcohol by the pregnant women, the type of beverage that is allowed the most

is dark beer, chosen by 32.1% (n=17) of the permissive participants; from those 64.7% are women (n=11), although it must be restricted to one dose according to 67.3% of the permissive participants. Wine was chosen as allowed by 24.5% of the participants permissive to the consumption of alcoholic beverages in special occasions. Among the pregnant women, 73% of the participants think that women in their condition must not consume alcoholic beverages, even in special occasions. In this sample, 16% of the pregnant women are permissive to the consumption of alcoholic beverages, as long as they are considered “weak”, with dark beer elected by 45% of the permissive pregnant women.

The same tendency was seen when the participants were asked about the consumption of alcoholic beverages in special occasions by women breast feeding. From the general population, 71.5% of the participants support the idea that a women breast feeding should not consume alcoholic beverages, even in special occasions (52.1% are women); and 13% of the participants think that a lactating woman can consume alcoholic beverages, as long as they are considered “weak”. Among the pregnant women, 83.2% think that a woman breast feeding must not consume alcoholic beverages and 10.9% are permissive to the consumption of “weak” beverages.

Consumption of alcoholic beverages during Sunday lunch

The participants were questioned as for the possibility of a pregnant woman or a lactating woman consumes alcoholic beverages on Sundays. Among the general population sample, 75.6% of the participants understand that a pregnant woman should not consume alcohol, even if in a restricted way one day a week (53.1% women), while 15.1% think that they could drink, but less than when not pregnant (57.7% women). When the consumption of alcohol is allowed for the pregnant woman on Sundays, 63.6% think that the consumption must be restricted to one dose, dark beer being the chosen beverage by 28.3% (n=13) of the permissive participants. When considering a woman breast feeding, 80.6% of the participants understand that a women should not consume alcoholic beverages and 10.5% understand that if a pregnant woman can drink, should be less than before getting pregnant. From the participants permissive to alcoholic beverages, 51.4% understand that the consumption must be restricted to one dose and 27% only a sip, and the chosen beverage once again, was dark beer (51.4%).

Among the pregnant women, 83.2% think that women in their condition must not consume alcoholic beverages, even if restricted to once a week, and 9.6% think that if a pregnant woman could drink, the type of beverage must be “weak”. Among the permissive pregnant women, half thinks that the quantity must be restricted to one dose, and 28% one sip. On the other hand, considering the women breast feeding, 92% of the pregnant women think they should not consume any quantity of alcoholic beverage.

Daily consumption of alcoholic beverages

The participants of the general population think, in their majority (95.3%), that a pregnant woman should not consume alcoholic beverages daily (53.1% women). From the participants permissive to alcohol consumption during pregnancy, 41.7% (n=5) understand that a dark beer could be consumed in one dose (50%) or one sip (50%). In this same sample (90.1%), understand that women breast feeding should not drink alcoholic beverages daily; 4.7% of the participants think that they could consume alcoholic beverages, as long as they are weak, dark beer chosen by 62% of the participants permissive to alcohol consumption, during breast feeding, restricted to one sip or one dose (40% of the permissive participants).

Among the pregnant women, 93% think women in their condition should not consume alcoholic beverages, 93.4% had the same opinion for women breast feeding.

Breast feeding: a woman that stopped drinking during pregnancy could return to drinking during breast feeding?

In the general population sample, 85% of the participants understand that a woman that stopped drinking during pregnancy should not return to consuming alcoholic beverages during breast feeding. The sample of pregnant women did not show much difference, 93% thought the same as the general population regarding alcohol consumption, in this stage in life.

Smoking during pregnancy and breast feeding

When asked regarding the possibility of a smoker continue smoking during pregnancy, 92.4% of the general population sample think that pregnant women should be totally abstinent from cigarette consumption, 4.7% understood that they could even smoke, but they should reduce the quantity. In this same sample, 87.8% of the participants think that a woman that quit smoking, during pregnancy, should not return smoking during breast feeding.

Among pregnant women, 94.2% understand that a smoker must quit smoking due to pregnancy, and this habit should also be avoided during breast feeding (89.1%).

Use of medication without prescription

The participants from the general population (91%) think a pregnant woman should not consume medication without medical prescription, such as anti-inflammatory, anti-depressants, antibiotics and appetite moderators, even if done frequently before pregnancy. These participants (92.4%) also think that this applies to women breast feeding.

Among the pregnant women, 93.4% think that a woman should avoid self-medicating, when in their condition, as well as breast feeding (91.2%).

Use of illegal drugs

The participants of the general population (98.3%) understand that a woman using illegal drugs should stop them when pregnant; the same applied for women breast feeding (98.8%).

For the pregnant women sample the same tendency (100%), the same in relation to breast feeding (100%).

Discrepancy

A very important aspect in this present study is regarding the identification of discrepancies in the attitudes of pregnant women as for the consumption of cigarettes during pregnancy. While 94.2% of the interviewees revealed an attitude of restriction towards cigarette use (5.8% were permissive), 17.5% use a certain quantity of

the product (being that 38.9% of smokers have admitted smoking up to half a pack per day), demonstrating that at least, 11.7% of the pregnant women smoked admitted the harming effects from cigarette use during pregnancy.

Differences between sample results

To compare the tendency between the results of both samples, they were summarized in Tables 1 and 2. The results are described in percentages, in which the scenario is described in the first line of the table, associated with the second line that involves the possibility of a pregnant or lactating woman using a substance. On the third line, the origins of the results are described, if they come from general population or from pregnant women; and finally, the results on the fourth line.

Table 1 – Attitude of restriction to alcohol consumption during pregnancy and breast feeding (%)

Scenario	Restriction to the consumption of alcohol in special occasions				Restriction to the consumption of alcohol on Sundays				Restriction to the daily consumption of alcohol			
	Pregnancy		Breast feeding		Pregnancy		Breast feeding		Pregnancy		Breast feeding	
Sample	General	Pregnant	General	Pregnant	General	Pregnant	General	Pregnant	General	Pregnant	General	Pregnant
Results	71.8	73	71.5	83.2	75.6	83.2	80.6	92	95.3	93	90.1	93.4

Table 2 – Attitudes of restriction to the consumption of other SPAs during pregnancy and breast feeding (%)

Scenario	Restriction in the consumption of cigarettes				Restriction to the consumption of medication without prescription				Restriction to the consumption of illegal drugs			
	Pregnancy		Breast feeding		Pregnancy		Breast feeding		Pregnancy		Breast feeding	
Sample	General	Pregnant	General	Pregnant	General	Pregnant	General	Pregnant	General	Pregnant	General	Pregnant
Results	92.4	94.2	87.8	89.1	91	93.4	92.4	91.2	98.3	100	98.8	100

As seen, the tendency of the results are very similar, sometimes with the general population expressing higher numbers of restriction attitudes, sometimes the pregnant women expressing higher number of restriction attitudes, with little difference.

Discussion

The objective of the present study was to know the attitudes in relation to the consumption of SPAs during pregnancy and breast feeding, in a sample containing pregnant women and one containing general population, if they are restrictive or permissive. As seen in the results, there is a general tendency, in the sample from the general population as well as pregnant women, regarding the restriction of SPAs consumption during pregnancy and breast feeding. The rates of responses lead to the conclusion that the use of SPAs should not be done, in those stages of life; and those people who are permissive understand that the consumption must be decreased in the case of all SPAs and medication without prescription; and besides, replacing, in the case of alcohol, beverages with lower alcohol content. The results are coherent with the one found in a qualitative study, where it was verified that most pregnant teenagers, sample of the study,

classified the consumption of alcohol during pregnancy as an “inconsequent attitude”, since such habits can cause damages to the pre- and post-natal development of the baby⁽¹⁰⁾.

In relation to the consumption of alcoholic beverages, the pregnant women of the present study had the tendency to present more restriction in relation to the consumption during breast feeding, perhaps they were concerned for the direct and concrete consequence from their habits on the child’s feeding. Besides, the use of SPAs during breast feeding was being assess as a situation not experienced yet, which might have brought up a higher restriction. There is also a general tendency, in the general population as well as pregnant women, the high restriction to cigarette consumption, medications without prescription and illegal drugs during such stages in life, even more so than the occasional consumption of alcohol (in special situations and Sundays). The rates of restriction to daily alcohol consumption, however, are similar to the restriction to the use of other drugs.

Such data suggest that the participants of the present study are informed about the negative consequences of using SPAs and medications without prescription during the mentioned stages in life. These results are different from the ones shown in a study developed in 1996, when

37% of the pregnant women were informed regarding the use of drugs of abuse⁽¹¹⁾ and the results in a study made in 2006, in which 95% of pregnant women admitted not having formal information regarding the use of alcohol during pregnancy, although they demonstrated to have notions about the harmful consequences in the fetus due to alcohol consumption, they were considered by the authors as experiences from common sense and empirical experience⁽¹²⁾.

These differences might be due to how the knowledge on the use of SPAs was investigated in the three studies. In the study from 1996⁽¹¹⁾, the pregnant women were asked about which pieces of information they had on the use of drugs during pregnancy, while in the present study, this was not done directly, but instead through the description of scenarios to be judged by the participants. The same way, in the 2006 study, two pregnant characters were presented, in which their attitude would be judge by the participants⁽¹²⁾. There were also differences related to the passage of time (for example, more access to information today) and the regional characteristics (information provided by health and education institutions, for example) could have explained these results. A more optimistic interpretation would be that campaigns, such as anti-tobacco, articulated by the Ministry of Health⁽⁷⁾, have increased the information about the use of SPAs. It is possible that the information increased, but on the other hand, studies have demonstrated that the use of SPAs among women during pregnancy continues to increase. Among teenagers, it is possible to find pregnant women who are stimulated to drink by their peers, or they take the information for granted or minimize the consequences of consumption to their children's development, so they feel closer to their peers by consuming and the plenitude offered by their period of development⁽¹⁰⁾. On the other hand, the results, especially the sample from the general population, show that the campaigns for ceasing the use of SPAs during pregnancy and breast feeding, can not only have as target pregnant women and mothers, but the people close to them, with special emphasis in confidant friends, oddly or not, have more influence over the pregnant women's behavior than their partners⁽³⁾.

In opposition to the epidemiological data of using SPAs during pregnancy^(9,13-17), it is very positive the fact that the rates of restriction attitudes to the consumption of SPAs during pregnancy were high. However, the discrepancy in attitude is evident on the sample of studied pregnant women, which can be an important object of study and possible target within prevention campaigns against SPAs during pregnancy and breast feeding. This discrepancy can be a warning, since smoking pregnant women, differently from those who are trying to quit and non-smokers, were the ones that evaluated the habit of smoking during pregnancy as less negative, during a decision making study⁽¹⁸⁾.

Programs to stimulate breast feeding and pregnancy courses can contribute to the decrease of SPAs consumption. The probability of smoking during pregnancy decreases if, before gestation, the woman decides that she will breast

feed her baby for four more months⁽¹⁹⁾. On the other hand, not attending the pregnancy courses and not to have the intention of breast feeding for four more months, as well as having smoking partners^(10,15,17) and have consumed alcoholic beverages before gestation; seem to be significant factors for the use of cigarettes.

Therefore, attitude should not be treated as a central concept to modify the use of SPAs, during pregnancy and breast feeding, since other factors also determine consumption. It is possible that the use of SPAs during these periods is also associated to the presence of mental disorders. For example, it was verified that almost half of smoking pregnant women (45.1%) presented criteria for the diagnosis of, at least, one mental disorder, being that among the pregnant women dependant on tobacco (12.4% of smokers), more than half (57.5%) presented criteria for a second mental disorder⁽²⁰⁾. Self-care behaviors, which include abiding to doctor's orders, are diminished when there is a mental disorder⁽²¹⁾.

Early treatment of mental disorders during the pre- and post-natal periods is recommended by the World Health Organization, since the baby benefits, not only from the mother's mental health, but also favors the health development of the child⁽²¹⁾. If the attitude corresponds to the combination of beliefs, feelings and its final product, behaviors, we highlight the discrepancy between beliefs and behavior in the use of SPAs, during pregnancy and breast feeding. Such discrepancy is due to the fact that the attitudes does not always enable predicting the behavior, although they usually do, being that the concerning issue is not if the attitudes predict behavior, but when the attitudes predict behavior, which depend on individual characteristics, the situations and the attitude itself, which decreases the predictive power of the attitude. Besides, an attitude can be considered ambivalent, if assessed positively and negatively by the same individual, this ambivalence being a uncomfortable state that usually, depend on the context and is subject to change⁽⁴⁾.

The behavior in the use of SPAs, during pregnancy and breast feeding, is usually accessed through self-report measures. These measures might be unreliable due to the discrepancy between belief and behavior, besides the embarrassment generated by strong social pressure and the recognition of the health hazards of tobacco to the mother and fetus, which makes great part of the pregnant women to give false information regarding their smoking habit⁽¹⁾ or the consumption of other substances.

Such different have been shown in studies comparing the self-report of pregnant women with biological markers. Although in insignificant rates for the invalidation of self-reports, the pregnant women that reported non-smokers presented positive biological markers for the use of tobacco (23% of pregnant women claimed to be smokers, while 25% of them presented biological markers for tobacco), in this case, from samples of CO⁽²²⁾. In Brazilian pregnant teenagers, it was verified through hair sample analysis, that 6% used cocaine or marijuana during their third trimester, 4% had only used marijuana, 1.7% had only used cocaine and 0.3% used both drugs; and none of them reported the

use of substances in a questionnaire used to investigate the consumption of SPAs during pregnancy⁽²³⁾.

Even having the knowledge of all the consequences from SPAs, at many times, even well trained staff, for several reasons, are not attentive in warning about the need to quit SPAs, although they strongly agree that pregnant women should quit using any substance⁽²⁴⁾, which demonstrates difficulty in transcribing attitudes into practical interventions. Personal beliefs on smoking as a strategy to deal with stress are also a nuisance for successful interventions. The belief that adult pregnant women should not be forced to make decisions on health-related questions, such as quit smoking, and fear by the part of the healthcare staff that such feeling can drive the pregnant women away from medical care, can also be considered a barrier in the quest to quit smoking⁽³⁾, as well as the embarrassment from peers, in the case of pregnant teens that use alcohol⁽¹⁰⁾.

Conclusions

The important rates of restriction attitudes to the consumption of SPAs, during pregnancy and breast feeding, present in the general population sample as well as the pregnant, show that the participants of the present study are informed regarding the negative consequences in the use of SPAs and medications without prescription during the mentioned stages in life. The results also enabled the conclusion that campaigns targeting attitudes of pregnant women and mothers can be effective in SPAs prevention, during pregnancy and breast feeding. The results, especially the general population sample, show that these campaigns can have as target, not only mother and pregnant women, but also the people closest to them. Therefore, it is favorable to stimulate that the relevant people in the pregnant women's life make opinions regarding the use of SPAs and take a stand in relation to the health of the pregnant woman and the baby.

Besides, the results in the present study concluded that restriction or permissive attitudes in relation to the consumption of SPAs, during pregnancy and breast feeding, are not exactly consistent to the rates of using SPAs during pregnancy. If, in the present study, which use the self-report measure, identified 11.7% of pregnant women consuming cigarettes even aware of the harmful effects on the health of their baby, it is suspected that the percentage of women consuming without reporting is even higher, also considering the facts provided by the scientific literature explored, regarding the other drugs.

However, the present study does not enable the conclusion, because the use of SPAs during pregnancy and breast feeding associated to an attitude of restriction occurs. The functional value of attitudes and influence that they apply in the judgments and behaviors can vary, besides, as seen above, an attitude can be ambivalent and context-dependent, being that this ambivalence can be a hypothesis for the use of SPAs associated to the restriction attitude, will only be confirmed with further studies exploring such relation. It is worth mentioning that the discrepancy

between attitude and behavior is not an exclusive phenomenon in the use of SPAs during pregnancy, this is also observed, for example, in attitudes studies regarding the use of preservatives or healthy eating. Therefore, not all attitudes are equal or can be assessed the same way.

We suggest the development of new studies that would enable the understanding the relation between the use of SPAs during pregnancy and breast feeding, approaching the specific chemical dependency, the stress factors that could trigger it, the presence of co-morbidities, the perception of the risks involved in consumption, and the beliefs favorable to SPAs during such periods in specific concepts.

Introducing actions that make some difference to change the behavior turns the attitude more coherent with ideas of health. Prevention campaigns to encourage quitting the use of SPAs during pregnancy and breast feeding that have attitudes as targets, added to other proven measures of efficacy, tend to increase the success rates, decreasing ambivalence, re-enforcing positive and pro-health attitudes.

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