



EDITORIAL

SMOKING DURING PREGNANCY: A PREVENTABLE SILENT EPIDEMIC IN COLOMBIA

The World Health Organization (WHO) considers tobacco to be one of the main causes of preventable chronic disease and death around the world. Obstetric patients being exposed to tobacco products represents the most important preventable cause associated with intrauterine growth retardation (IUGR), preterm birth and low birthweight; it has also been associated with intrauterine fetal death and placental function-related abnormalities. In the neonatal period, it has been associated with sudden infant death syndrome, infections, such as otitis and pneumonia, and in infancy with chronic diseases, such as asthma and obesity.^{1,2}

Tobacco consumption affects all age-groups; however, there has been a worrying increase in susceptible populations (i.e. adolescents and young people). Girls and women currently represent specific targets for the tobacco industry involving the indiscriminate promotion of tobacco and cigarette consumption.³ Global surveys have revealed a disturbing increase in cigarette and tobacco use in girls aged 13-15; however, such increase in consumption has not affected all countries in the same way. High-income countries (according to World Bank classification of countries by income) have seen a reduction in tobacco use whilst consumption has increased in countries classified as being low or medium/high income ones, such as Colombia.³ It has been calculated that 9% of females smoke in low-income countries. Young females are becoming increasingly exposed to this scourge and one out of four adolescents currently becomes pregnant in Colombia.

(http://www.who.int/tobacco/resources/publications/tobacco_atlas/en/index.html).

Many strategies have been used for reducing tobacco consumption, including the use of taxes to increase the price of cigarettes; this measure has had a limited effect in Colombia due to contraband. However, steps have been taken in the right direction in Colombia as shown by the approval of law 1335, July 21st 2009 or the integral control of tobacco law, signed fifteen months after Colombia ratified the World Health Organization's Framework Convention on Tobacco Control (FCTC).

The prevalence of smoking amongst expectant mothers in Colombia is not exactly known, in spite of the habit of smoking being considered a public health surveillance event. Its effect during pregnancy has not been widely evaluated; the problem is not being given the importance it requires. Pilar Vélez-Gómez et al, from the "Universidad Pontificia Bolivariana" in Medellín, found that 17% of live births had low birthweight, 21% were preterm and 12% had IUGR in their target population in a descriptive study published in this journal in 2006. They reported a significant association between low birthweight and smoking (1.95 RR; 1.19-3.17 95%CI).⁴

This issue of the journal publishes a report by Hernán Cortés-Yepes regarding the prevalence of smoking in 2171 consecutive expectant mothers; they were evaluated at the San Vicente de Paúl teaching hospital's Fetal Medicine Unit in Medellín, ("Unidad de Medicina Fetal del Hospital Universitario San Vicente de Paúl Fundación"). The methodology used consisted in administration of

a survey by the author; he has acknowledged its limitations. Cortés-Yepes reported a prevalence of 7.3%, corresponding to 160 expectant mothers; 70 of them (43.7%) continued smoking an average of 7.2 cigarettes per day during pregnancy. Even though this study does not mention whether the participants were counseled to stop smoking and the study did not include the post-partum period when most expectant mothers take up smoking again, this work's importance lies in it being innovative, since there have not been any prior or contemporary reports regarding this population in Colombia.

Reports from other Latin-American countries have indicated that prevalence is variable, being as high as 18% or as low as 0.6% of expectant mothers.⁵ The prevalence reported by Cortés-Yepes may be considered intermediate; however, it must not underestimated, given the characteristics of the population being attended at this facility of high complexity care for the particular region. It should be born in mind that smokers tend not to report tobacco use during pregnancy, especially if they have identified risk factors. It is thus recommendable that such questions as well as the use of biological markers for verifying exposure, such as cotinine in urine or saliva or exhaled carbon monoxide which are easily available and recorded, should be considered in future epidemiological studies.⁶ Studies are required for evaluating exposure to tobacco and other toxins during pregnancy considering Colombian and Latin-American populations' social, cultural and economic conditions.

The prenatal period represents a golden opportunity for identifying active and passive exposure to tobacco products. More than 80% of administrative and healthcare service-providing institutions in Colombia use the Latin-American Perinatology Centre (CLAP) perinatal record card (some modifications having been made to it at some centers). This instrument includes smoking habit as a risk factor, as both

active and passive consumer. Unfortunately, the information collected presents problems regarding the quality of the records; there has been under-recording and a lack of continuity in data collection. The information available must be analyzed for consolidating diagnoses and measuring the impact of direct morbidity on the fetus.

On the other hand, healthcare providers are responsible for providing healthcare services and public health surveillance as well as promoting healthcare. This means that the search for exposure to tobacco should begin from the preconception phase; however, no appropriate healthcare promotion policy or culture currently involves reproductive-aged females.

It must be ensured that preventing smoking becomes a topic on the public agenda and educational sector. Some studies have referred to the high prevalence of smoking amongst healthcare providers, even from early stages of their healthcare training. This might reflect a limited commitment of healthcare personnel to the protection of other people's health and their own. Mejía et al, reported 35% current tobacco use in Argentina amongst 235 obstetricians-gynecologists surveyed during 2006.⁷

This situation requires health faculty curricula being reorientated, as well as legislation-backed strategies being implemented to facilitate the suspension of tobacco consumption. When a healthcare provider intervenes in people suffering from toxicomania, the possibility of success regarding them withdrawing from consumption becomes multiplied by at least five times by contrast with someone who does not receive qualified support or orientation.⁸ Females should be made the center of attention in healthcare promotion since the beginning of their reproductive age and whenever they have the opportunity of coming into contact with a healthcare provider who is aware of and sufficiently trained for carrying out this task, as well as motivated for developing local research. We must develop effective, culturally-acceptable and

cost-effective counseling methods for patients and their families with the active participation of healthcare professionals at all levels.⁸ Evaluating how incentives are used for encouraging cessation of tobacco use, the use of pharmacotherapy such as bupropion, nicotine replacement therapy or the use of varenicline must also be investigated, since no suitable scientific information and evidence is available leading to recommending their use as adjuvants related to reducing smoking during pregnancy.⁹ Educating the family nucleus, and not just the mother, as well as the use of post-partum interventions represent as yet unexplored research areas.

Available information about perinatal alterations resulting from exposure to tobacco and the products of smoking cigarettes has been concentrated on active smoking. Patients who are passive smokers (resulting from exposure to tobacco use in the home and workplace) completely escape any prenatal counseling regarding the possibility of morbidity being presented during pregnancy, resulting from such exposure. Suppose that passive smokers were to be included in the high obstetric risk classification as an ongoing strategy? Could healthcare providers be made aware of this condition? Can we make a profound effect on the health of the newborn by reducing the prevalence of patients suffering from premature rupture of the membranes or IUGR even though we do not know these morbid conditions' real prevalence in passive smokers?

We can only determine the impact of promotion or prevention action if an epidemiological diagnosis of the actual situation is made, accompanied by studies such as that by Cortés-Yepes; by knowing the condition's prevalence, measuring the association between being an active or passive smoker with perinatal morbidity and the percentage attributable to tobacco and cigarette use and the population attributable risk, aimed at subsequently implementing public health measures related to impact and prevention.

Accompanying Hernán Cortés-Yepes' leadership and vision, the Global Network for Perinatal and Reproductive Health (www.gnprh.org) (“Red Mundial para la Investigación y el Desarrollo de la Salud Perinatal y Reproductiva”), in which we participate, has initiated a first approach to fieldwork for ascertaining the attitude, knowledge about perinatal morbidity and access to tools for reducing or avoiding the smoking habit of healthcare providers caring for pregnant females in several institutions in the city of Medellín (universities and healthcare-providing services). Our initial observations (Britt Severson, MPH, personal observation), supported by Cortés-Yepes' novel work, reinforce the hypotheses posed in the above paragraphs. We must all work together to improve the provision of better services for pregnant females, active and passive smokers and their families.

A pre-conception period, a pregnancy and a post-partum period free of active or passive exposure to tobacco and its harmful effects are vital for the mother and fetus. We invite the readers of this journal to actively participate in developing strategies leading to preventing this emergent epidemic.

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