

# EXPLORATORY FACTORIAL MODEL OF THE PERCEPTION OF DECRIMINALIZATION OF ABORTION IN THE ERA OF COVID-19

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## ABSTRACT

*Reproductive health policies, focused on the decriminalization of abortion, have effects on the beliefs, attitudes, intentions and behaviors of termination of pregnancy. As women get older, more educated and more income, they rationally choose an abortion, but they move away from the ideal age for procreation of 22 years. The objective of the present work is to establish the exploratory factor structure of scales that measure four factors and 28 indicators (seven for each factor) related to the termination of pregnancy. Consequently, a non-experimental, cross-sectional and exploratory study was carried out with a non-probabilistic selection of 100 students. From a structural model the intentions determined the behaviors, but the factor solution was explained by beliefs. However, the context, sample selection, and type of analysis precludes generalizing the data to other settings. It is recommended to carry out a confirmatory factor analysis with a probabilistic selection of the sample in the local population.*

**Keywords:** Fertility, Abortion, Beliefs, Attitudes, Intentions, Behaviors.

## INTRODUCTION

The public administration is a legal figure derived from the governance of religious associations. Its legal essence consists of protecting lives and reducing the impact of risk events on the exposure of human beings. Faced with social and medical dilemmas where people's lives are at risk, the theology of public administration seeks the preservation of life or at least the preservation of the greatest number of lives. In this sense, when a pandemic exposes people's lives, the theology of public administration seeks to resolve the dilemma of who to prioritize in a risk scenario. In this way, jurisprudence dictates that life must be preserved, even when the imminent risk is the total or partial loss of a human being.

In the case of technological advances related to automation, the theology of public administration in its section on jurisprudence and resolution of dilemmas suggests the programming of the automata based on the principle of preservation of life or reduction of the impact of human losses (Hampton, 2020). In this way, faced with the dilemma of who to attend to in the face of the health crisis, the theological principle indicates that the greatest number of lives must be attended to regardless of their economic, political, social, labor, educational or health condition. The relevant question is not to confuse the means with the end, because if this occurs, a hegemony of instrumental reason occurs (Horkheimer et al., 2002).

Regarding the request for termination of pregnancy, the theology of public administration will seek the preservation of life in a condition of risk. In a scenario of exposure to contagion, illness and death from COVID-19, the theology of public administration will insist on safeguarding and protecting life (Pakpahan, 2020). Therefore, this type of theology develops from an axiology of absolute values, not relative ones. The most important value that a person possesses is to be a person, because the person is a value in itself from its original conception (Mansilla, 2008).

If the request for termination of pregnancy was made before, during or after the health crisis of the SARS CoV-2 coronavirus, then the principle of caring for the greatest number of lives will prevail, even when hospitals are organized to provide specialized care for the COVID-19 versus other diseases.

More specifically, if the dilemma consists of protecting the applicant for the termination of pregnancy against a carrier of the SARS CoV-2 coronavirus, then the theology of public administration will seek to attend to both cases, but if it is necessary to prioritize care (Duque Silva & Del Prado Higuera, 2021). The imperative will be to reduce the impact of the pandemic on human lives (De Beer, 2020). Therefore, priority attention to an applicant for termination of pregnancy will be priority over an applicant for coronavirus care.

The pandemic and with it the SARS CoV-2 coronavirus care centers, as the number of infections, illnesses and deaths from COVID-19 increased, were subjected to a stigma of carrying the virus. Health professionals were stigmatized as sources of infection (Przywara et al., 2021). Once the population is immunized, stigma reduces its impact on social distrust and a new theology of health service administration emerges. Consequently, the measurement of the determining variables of trust in the public health administration will anticipate risk aversion scenarios.

The termination of pregnancy is the result of a deliberate, planned and systematic process; therefore, intention, request and curettage are determined by a system of representations, beliefs, attitudes and perceptions regarding assisted abortion (Garcia, 2020). Such a process begins with the dissemination of information concerning sexuality, fertility, the decriminalization of abortion and the consequences of abortion on health. It is known that the fertility cycle established in a 28-day period involves four periods; menstruation –the mucosa or endometrium is detached and is driven by the blood–, fertility –pre-ovulatory proliferation–, ovulation –the endometrium is reconstructed thanks to estrogens– and secretion –the uterine mucosa presents the maximum thickness facilitating fertilization– (Bustos et al., 2019).

However, even though the fertility or fertilization cycle is widespread in the basic education system, the media reduce the biochemical process to allusive messages about freedom of choice for women and freedom of procreation in the case of couples (Leal et al., 2012). Consequently, the probability of procreation with respect to age intensifies in the 22 years and decreases dramatically as the age elapses. About 25% of attempts at procreation end in pregnancy, but less than 5% of cases after the age of forty are observed. In other words, the procreation cycle, the probability of fertilization and age seem to correspond to a risk scenario in which curettage and abortion are instruments of freedom of choice in women and couples (Nagel, 1998). The cure is to tear the lining of the uterus (RAE, 2014). The word pregnancy (scrape the surface to separate the membrane that covers it) comes from "pregnancy" and this from the Latin *ligula* = "teaspoon and also various instruments and blades similar to a teaspoon" (Anders, 2014). The abortion is the termination of the pregnancy due to natural or caused causes

(RAE, 2014). The word "*abortion*" comes from the Latin *abortus*, formed from the prefix *ab-* (deprivation, separation from the outside of a limit) and (*birth*) so we understand it as "deprivation of birth (Anders, 2014). A safe abortion is defined as those that meet the legal requirements in the countries where abortion is legally permitted under a wide range of criteria. Clinical abortion is the abortion of a clinical pregnancy that takes place between the diagnosis of pregnancy and the gestational age of 20 full weeks. Retained abortion is a clinical abortion in which the products of conception are not spontaneously expelled from the uterus. Preclinical abortion is the abortion that takes place before clinical evidence or an ultrasound of the pregnancy. Spontaneous abortion is the spontaneous loss of a clinical pregnancy before the full 20 weeks of gestation or, if the gestational age is unknown, a weight of 500 g or less.

The World Health Organization (WHO) describes unsafe abortion as a procedure to end an unwanted pregnancy Cook et al. (2004) carried out by both people lacking the necessary skills or in an environment that does not meet minimum medical standards, or both. Clearly, abortion has received considerable attention, yet it continues to generate controversy. In Mexico, the relationship between abortion decriminalization policies and the age of those requesting the termination of pregnancy seems to explain the trend of case by entity. Mexico City leads the cases of request and termination of pregnancy (100,784 cases), followed by the State of Mexico (33,386), entity with the highest youth population and birth rate (Velez, 2018).

Regarding age and cause of interruption pregnancy, rape is a likely cause for abortion in 60% of cases in women aged 23 to 25 years; the risks of pregnancy are more approved in women from 17 to 19 years of age in more than 40%; But the economic factor is more incisive in those who are between 23 and 25 years old in more than 20% of cases. Finally, the freedom to abort is more exercised in women between 23 and 25 years of age than in women under that age range in more than 10% of cases (Aldana, 2019).

Therefore, the wielded data seem to show that there are social representations of freedom of choice around sexuality, procreation and termination of pregnancy that are disseminated in the media and generate attitudes in favor of abortion approval in women between 17 and 25 years old, age where the probability of fertility is greater than in other age ranges (Quintero et al., 2018). The social representations of freedom of choice about sexuality and interruption of pregnancy explains a flexible process in making decisions, the statistics seem to refute, since the policies of decriminalization of the abortion. The rational choice that is more observed in women with ages close to 25 years (Parrish, 2012). In this sense, the freedom of rational choice - deliberate, planned and systematic - could be generating attitudes - dispositions in favor of sexuality and the interruption of pregnancy - as women approach the age of 25, an instance in which they should have ended She is studying pre - grade and have developed a prospective life (Garcia, 2020). In the health and human behavior sciences, the explanatory models of planned procreation and abortion warn that it is the socioeconomic factors that determine attitudes and perceptions in the first instance, which in turn influence intentions and the latter in pregnancy or in its termination.

However, studies related to pregnancy and its interruption maintain that such actions are not exclusively determined by the rational choice of women, but also in such a decision socio-cultural factors - values, norms, customs and customs, local traditions – affect. In this socio-cultural sense, the relationship of a couple - stable without commitment, stable with commitment, unstable without commitment and unstable with commitment - influences the decision of pregnancy and / or interruption of procreation. In this way, couples who maintain

stable and committed relationships choose pregnancy or the termination of the same, but in other couple relationships it is the man who delegates to the woman's family the decision to procreate or terminate the pregnancy. In this sense, parental parenting styles - authoritative, permissive or assertive - will influence procreation or the termination of pregnancy. In this way, assertive parenting styles are those that favor and support the woman's decision and if she has a partner, the choice of both.

However, if parenting styles are rather authoritarian or permissive, then a dominant actor will make the decision to abort or procreate. The cases presented not only reduce women's freedom of choice, but also highlight the sociocultural context; family norms or relationships determine the procreation or termination of pregnancy. Despite the fact that the styles of parenting and the types of couple relationships are depositories of a culture in which the female body is an instrument of social reproduction, more than personal satisfaction, the planned fertility model warns that at an older age, education and income, the woman's choice prevails over any norm or value. That is, a high educational level corresponds to a higher income, but it also supposes a deliberate, planned and systematic lifestyle that is contrary to the probability of optimal fertility in the 22 years (Adamsoms, 2013). It is a dilemma that involves exercising freedom of sexuality and termination of pregnancy as age, education and income increase, but fertility is less and less likely. In the case of couple relationships, psychological studies of abortion warn that the type of relationship - time, dedication, commitment, jealousy - determines the expectations of the couple. In this way, couples who have a meaningful, prolonged, committed and violence-free coexistence make decisions to procreate a child.

However, the influence of beliefs has not been established, since in deliberate and planned models they are determinants of attitudes. Therefore, a study about beliefs, in relation to the other variables of the planned pregnancy model, would clarify the exposed dilemma. The specified model of dependency relationships explains the effects of the abortion decriminalization propaganda, considering three assumptions regarding 1) beliefs attitudes; 2) beliefs attitudes intentions and 3) beliefs attitudes intentions behaviors.

Assumption 1: Beliefs attitudes. On a general level of policies, diffusion and audiences, and decriminalizing abortion, widespread in the media, creates provisions against and in favor of pregnancy and its interruption depending on the information; causes and effects of reproductive health policy.

Assumption 2: Beliefs attitudes intentions. In a more specific sense around the rational choice of women, the information on the decriminalization of abortion not only generates negative or positive dispositions, but also provides estimates based on costs and benefits about the causes and consequences of carrying out a birth. Cesarean section or abortion, considering age, income and education. It is a process in which the more specific the information about the pregnancy and its interruption increases the probabilities of making decisions and carrying out such actions.

Assumption 3: Beliefs attitudes intentions behaviors. In a personal sphere, the effect of the information on the causes and consequences of the termination of pregnancy is processed and assimilated into provisions in such a way that they determine the decisions and strategies, provided that it is the product of the deliberation, planning and systematization of said information, corresponding to abortion.

The objective of this study is to weigh the exploratory factor structure of planned abortion in adolescent couples.

**Formulation:** What are the differences between the relations of explanatory dependence on the planned pregnancy - sex, age, income, beliefs, attitude, intentions and behaviors - regarding dependency ratios weighted?

**Null hypothesis:** The theoretical dependency relationships between indicators and factors related to the termination of pregnancy are adjusted to the weighted dependency relationships.

**Alternate hypothesis:** The theoretical relationships and the weighted relationships are different.

- Variables.
- Sex. Refers to the identity of the couple that can be female or male.
- Age. Refers to the period of life from birth.
- Income. Refers to the sum of wages, scholarships or economic and financial supports.
- Beliefs. It refers to the processing of information –religious, academic, daily– related to the termination of pregnancy.
- Attitudes. It refers to the provisions against or in favor of the termination of pregnancy.
- Intentions. Refers to the probability of deciding to terminate the pregnancy.
- Behaviors. It refers to the fidelity, documentation, financing and request regarding the termination of the pregnancy.

## Method

**Design:** A non-experimental, cross-sectional and exploratory study was carried out.

**Sample:** A non-probability selection of 100 students from a public university in Xochimilco, Mexico City was carried out. 43% are women and 57% are men; 21% are under 18 years old ( $M = 17.24$  and  $SD = 1.24$ ), 35% are between 18 and 22 years old ( $M = 20.35$  and  $SD = 1.27$ ) and the remaining 47% are over 22 years ( $M = 22.46$  and  $SD = 2.36$ ); 40% pay less than 3,000 pesos per month ( $M = 2'973$  and  $SD = 124.35$ ), 25% pay between 3'000 pesos per month and 7'500 pesos per month ( $M = 6'245$  and  $DE = 135, 25$ ) and the remaining 35% pay more than 7'500 monthly ( $M = 7'821$  and  $SD = 135.26$ ).

**Instrument:** The Variable Scales related to the Termination of Pregnancy were used. Beliefs scale. It measures the processing of religious, academic, or everyday information regarding the termination of pregnancy. It includes two response options ranging from 0 = "false" and 1 = "true". For example: "*Having a child is beyond my will.*"

**Attitude Scale:** It measures the provisions against and in favor of the termination of pregnancy. It includes five response options ranging from 0 = "not at all agree" to 5 = "strongly agree", "The decision to have a child is the parents."

**Scale of Intentions:** It measures the couple's expectations regarding the termination of the pregnancy. It includes five response options ranging from 0 = "not at all likely" to 5 = "very likely". For example: "I would have a child even if my partner abandons me."

Scale of Behavior. It measures the frequency of actions related to fidelity, documentation, financing, and requesting termination of pregnancy. It includes five response options ranging from 0 = "never" to 5 = "always". For example: "Before deciding childbirth I have documented in the matter."

**Process:** The Delphi technique was used to homogenize the meanings of the words used in the reagents. Confidentiality was guaranteed in writing and it was reported that the results

would not affect the academic status of the students. The surveys were carried out in the lobby of the public university library. The information was processed in the Statistical Package for Social Sciences (SPSS) and Structural Moment Analysis (AMOS) version 21.

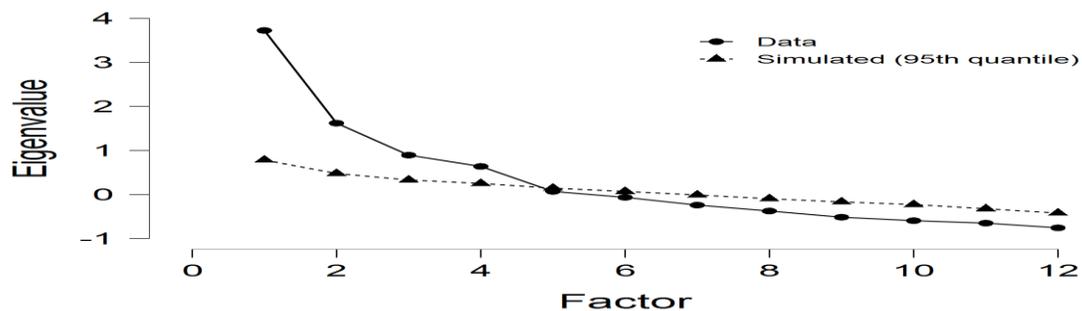
**Analysis:** The internal consistency was established with param and alpha Cronbach. Adequacy and sphericity were estimated with the KMO parameters and the Bartlett test. The Exploratory Factor Analysis was performed with the method of extraction of main axes, promax rotation and oblique criteria. Factor weights greater than 0.300 were required to interpret the factors. The fit of the dependency relationship model was established with fit and residual statistics.

## Results

The reliability of the belief scales ( $\alpha = 0.752$ ), attitudes ( $\alpha = 0.760$ ), intentions ( $\alpha = 0.783$ ) and behaviors ( $\alpha = 0.775$ ) reached values higher than the minimum required. Extraction method: main axes, promax rotation, skew criterion. Sphericity and adequacy [ $\chi^2 = 146.20$  (45gl)  $p = 0.000$ ; KMO 0.645]. M = Average; SD = Standard Deviation; F1 = Beliefs (35% of the total variance explained), F2 = Attitudes 26% of the total variance explained), F3 = Intentions (16% of the total variance explained), F4 = Behaviors (8% of the total variance explained) . Alpha values correspond to the internal consistency of the scale excluding the item. The adequacy and sphericity [ $\chi^2 = 146.20$  (45gl)  $p = 0.000$ ; KMO 0.645] allowed to establish the validity of the construct was established from the total percentage of the explained variance; beliefs (23%), attitudes (20%), intentions (17%) and behaviors (14%).

In order to observe the structure of relationships between the factors, the correlations and covariances were estimated, considering the specification of the model that proposes linear trajectories between beliefs, attitudes, intentions, and behaviors.

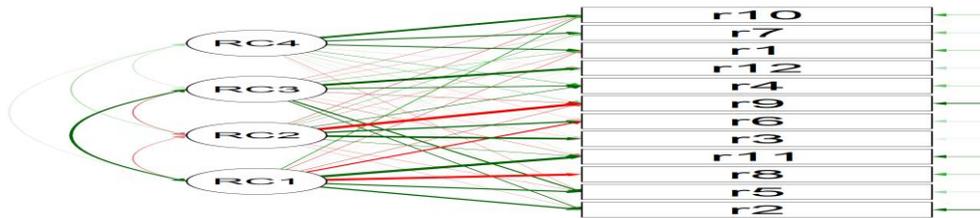
The structural model of dependency relationships (see Figure 1) established the path of beliefs attitudes intentions behaviors as the one with the highest explanatory plausibility, since it is the intentions that determine the behaviors. In turn, attitudes have a greater impact on intentions, although they seem to reduce the effect of beliefs on dispositions.



**FIGURE 1**  
**SCREE PLOT OF THE PERCEPTION OF DECRIMINALIZATION OF ABORTION IN THE ERA OF COVID-19**

Source: Elaborated With Data Study

The values of the adjustment and residual parameters [ $\chi^2 = 256,26$  (41df)  $p > 0.05$ ; CFI = 0.997; GFI = 0.990; RMSEA = 0.008] allowed us to accept the null hypothesis regarding the similarities between the theoretical dependency relationships and the weighted dependency relationships Figure 2.



**FIGURE 2**  
**EXPLORATORY FACTOR MODEL OF PERCEPTION OF DECRIMINALIZATION OF ABORTION IN THE COVID-19 ERA**

*Source: Elaborated with data study. Note: Elaborated with data study; F1 = Beliefs, F2 = Attitudes, F3 = Intention, F4 = Behavior, r = Indicator, d = Disturbance, e = Error,  $\zeta$  = Relations between error and indicator,  $\delta$  = Relations between factors or disturbance and factor.*

## DISCUSSION

The contribution of the present study to the state of knowledge lies in the establishment of an exploratory factor structure of the planned termination of pregnancy. It is a main axis polychoric factorial solution, with obliqueness and promax rotation criteria that is consistent in each of its factors and indicators.

However, the context of the study, the selection of the sample and the exploratory factor analysis prevent generalizing the data to other study areas, since a randomized and stratified sampling, as well as a study in a non-university population, would allow a confirmatory factor analysis of established dependency relationships. This is so because, unlike exploratory factor analysis, confirmatory factor analysis weighs measurement errors and establishes the incidence of factors not included in the dependency relationship model. This is the case of homoscedasticity –constant measurement errors in indicators and factors– that in the exploratory factor analysis seems to have no influence, but in the confirmatory factor analysis it would modify the structure and factor solution. Therefore, a study with the characteristics and recommendations put forward would explain the effects of reproductive health policies in general and the decriminalization of abortion specifically, on the beliefs, attitudes, intentions and behaviors of women and their partners in the face of childbirth- cesarean section or abortion.

## CONCLUSION

The objective of the present work was to specify a model for the study of pregnancy termination, although the design limited the findings to the sample, positive relationships were

established between beliefs, attitudes and intentions regarding behaviors, suggesting the extension of this work in other settings of reproductive health and sexuality. Future lines of research regarding factors explaining abortion intentions will allow anticipating demographic growth scenarios. The public policies that emerge from these results show that the population between 18 and 22 years of age is prone to plan their termination of pregnancy and based on this finding, it is possible to anticipate risk scenarios, as well as prevention, self-care and self-efficacy in vulnerable populations.

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