

Confirmatory Factor Analysis of the Request for Pregnancy Termination in Relation to the Sexual Formation of Intellectual Capital at A University in Central Mexico

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Submitted: 2025, Jul 08; Accepted: 2025, Aug 04; Published: 2025, Aug 11

Citation: Baez, S. S. V., Ornelas, R. M. R., Lirios, C. G., González, M. D. R. M. (2025). Confirmatory Factor Analysis of the Request for Pregnancy Termination in Relation to the Sexual Formation of Intellectual Capital at A University in Central Mexico. *J Dep Anxiety Sci*, 2(1), 01-07.

Abstract

Pregnancy interruption policies are distinguished by orienting opinions, decisions and behaviors towards the individual request for abortion, even when the literature indicates that the choice of partner is defined by the group closest to the person, the strategies of government seem to focus on the personal motives of those requesting the service. The objective of this work was to establish the cognitive and behavioral dimensions of the request for termination of pregnancy. A psychometric, transversal and correlational work was carried out with a sample of 100 students from a public university selected for their internships and professional service in public health institutions. The results show a reduction to two factors of the three reported in the literature. The reduction to two factors and six indicators is recommended in order to adjust the instrument to the sample and its scenario of expectations of termination of pregnancy.

Keywords: Attitudes, Abortion, Knowledge, Beliefs, Factorial Model

1. Introduction

Abortion attitude theory focuses on understanding and explaining people's attitudes, beliefs, and opinions toward abortion [1]. This theory is based on the study of the individual and collective attitudes that people have regarding abortion, and how these attitudes influence their thoughts, feelings and behaviors related to this issue [2]. Some key aspects and approaches within the theory of attitudes toward abortion include: Attitude formation: Examines how attitudes toward abortion develop and are shaped through individual, social, and cultural factors [3]. These may include the influence of family, religion, education, media, and personal experiences.

1.1 Components of Attitudes: Attitudes toward abortion generally consist of three main components [4]. Cognitive when the beliefs, thoughts or knowledge that people have about abortion

(for example, opinions about morality, ethics or rights) define their behaviors [5]. Affective when the emotional feelings associated with abortion (such as compassion, moral judgment, empathy) influence abortion request decisions [6]. Behavioral when the actions or behaviors that people are willing to take in relation to abortion (such as support for certain policies, participation in public debates, etc.) determine behavioral learning oriented towards requesting an abortion.

1.2 Attitude Change: Examines how attitudes toward abortion can change over time due to exposure to new information, social influence, interactions with people with different opinions, and personal reflection [7].

1.3 Impact on Behavior: Explores how attitudes toward abortion influence people's behavior, including personal decisions, support

for specific policies, participation in activist activities, among others [8].

1.4 Sociocultural Context: Recognizes that attitudes toward abortion are influenced by the sociocultural context, such as cultural norms, laws, government policies, and social perceptions prevalent in a given society [9].

This theory provides a conceptual framework for understanding the diverse and often complex attitudes towards abortion, allowing researchers, health professionals and policy makers to better understand how people's opinions regarding this very important topic are formed, changed and affected. delicate and controversial [10].

The figures relating to the interruption of assisted pregnancy seem to show that it is a problem very close to families who have had children and who, for economic reasons, decide to have the abortion in public hospitals [11]. In this sense, sociopsychological studies on the problem have shown that monthly economic income is a determining factor in abortion practice [12]. As wages decrease, attendance at public hospitals for pregnancy termination appears to increase.

However, an associative relationship between the group norm and the abortion practice is determined by family dynamics and is a determining factor in the termination of pregnancy in adolescents more than in married women [13]. That is, the moral values of the family seem to influence the abortion practice [14]. In contrast, established marriages seem to adjust their decisions to their socioeconomic situation [15]. Such a difference between single teenage mothers and married housewives was also found in a context of scarcity of economic resources [16]. If marital status influenced abortion decisions in adolescents more than women who lived with their partner, then age differences are also an important maturation factor [17]. In this sense, beliefs associated with age influenced abortion decisions [18]. For its part, the interrelation between age and monthly economic income determined the abortion practice [19]. A replication of the study with the education variable found a positive relationship [20]. As the educational level of the couples increased, their income increased and the interaction between both factors affected the termination of the pregnancy.

However, attitudinal studies have not established the relationships between the sociopolitical dimensions of induced abortion strategies with respect to the feelings of those who come to request the pregnancy termination service [21].

Therefore, the objective of the present work was to establish the dimensions of the request for termination of pregnancy in order to compare the theoretical structure reported in the literature with respect to the structure observed in the present study.

Are there significant differences between the relationships of the theoretical dimensions with respect to the factor structure analyzed in this work?

Hypothesis. The confinement and distancing policies implemented to mitigate the impact of the pandemic on public health increased the risks of pregnancy and created a sexual and reproductive health problem by encouraging the demand for legal termination of pregnancy [22]. Consequently, significant differences are expected between the theoretical structure reported in the literature consulted with respect to the expectations observed in the present work.

2. Methods

A correlational and cross-sectional study was carried out with a non-probabilistic sample of 100 students ($M = 28.34$ $SD = 3.5$ age and $M = 10,893.00$ $SD = 456.00$ monthly income) from a public university in central Mexico. Abortion Expectations Scale was constructed which included 15 items with seven response options ranging from 0 = "not at all likely" to 7 = "quite likely." Reliability (0.780) reached sufficient values for analysis of sphericity and adequacy [$\chi^2 = 1800.022$ (105df) $p = 0.001$; $KMO = 0.798$] needed for validity which ranged between 0.324 and 0.546

Respondents were selected based on their affiliation to internships and professional service in public health centers. The concepts were established through focus group and Delphi techniques. The survey was administered at the public university facilities. Confidentiality and anonymity contracts were provided to guarantee proper processing of information and disclaimer of liability for misuse of personal data.

The data were processed in JASP version 18 and the coefficients of reliability, sphericity, adequacy, validity, adjustment and residual were estimated to contrast the hypothesis relating to the significant differences between the theory and the empirical literature reviewed.

3. Results

The analysis of the adequacy of the instrument to the sample size suggests more robust analyzes (see Table 1). The KMO values meet the required minimum of 0.60 and are interpreted as suitable for further complex analyses.

indicator	MSA
Faith	0.678
Belief	0.722
Know	0.754
Opinion	0.384
Experience	0.603
Experience	0.640
Overall	0.642

Table 1: Kaiser-Meyer-Olkin (KMO) Test

The analysis of covariance suggests the incidence of other factors as an essential requirement to rule out the effects of exogenous variables (Table 2). The values are far from zero

Faith	Belief	Know	Opinion	Experience	Experience
1,550					
0.924	2,754				
0.169	0.365	0.950			
0.150	0.324	0.059	2,767		
0.490	1,061	0.194	0.522	2,128	
0.522	1,129	0.206	0.556	1,821	3,543

Table 2: Implied Covariance Matrix

analysis indicates the percentage of variance explained between each predicted variable (Table 3). The values suggest that the experience of requesting termination of pregnancy is the most explained with 80% of its total variance. In other words, the model explains the variance of the experience of pregnancy termination with a high percentage.

	R ²
Faith	0.276
Belief	0.726
Know	0.070
Opinion	0.058
Experience	0.804
Experience	0.547
Factor 1	0.590
Factor 2	0.558

Table 3: R- square

The confirmatory factor analysis includes the factor weights that explain the structure of the request for termination of pregnancy based on the relationships between the indicators and the factors (Table 4). The values are close to the expected significance level of 0.05.

95% Confidence Interval							
Factor	indicator	Estimate	Std . Mistake	z- value	p	Lower	Upper
Factor 1	Faith	0.419	60,281	0.007	0.994	-117,730	118,567
	Belief	0.906	130,435	0.007	0.994	-254,742	256,554
	Know	0.165	23,820	0.007	0.994	-46,521	46,852
Factor 2	Opinion	0.266	33,545	0.008	0.994	-65,481	66,012
	Experience	0.870	109,910	0.008	0.994	-214,550	216,290
	Experience	0.926	116,967	0.008	0.994	-228,325	230,177

Table 4: Loading Factor

The analysis of the intercepts suggests the influence of endogenous factors on the established factors (Table 5). The values report direct, positive and significant relationships between the determining variables and the variables, although three “ Heywood ” cases are

observed that suggest the deletion of the variables that measure opinion, experience and experience corresponding to the second factor as a case of overestimation.

95% Confidence Interval						
indicator	Estimate	Std . Mistake	z- value	Q	Lower	Upper
Faith	0.944	0.093	10,146	< .001	0.762	1,127
Belief	0.983	0.124	7,927	< .001	0.740	1,226
Know	0.872	0.073	11,963	< .001	0.729	1,014
Opinion	2,704	0.124	21,747	< .001	2,460	2,948
Experience	1,648	0.109	15,117	< .001	1,434	1,862
Experience	1,441	0.141	10,245	< .001	1,166	1,717

Table 5: Intercepts

The confirmatory structural analysis indicates the configuration of factors according to the theory reviewed in the literature which indicates three factors related to emotionality, rationality and

behavior (Fig. 1). The results demonstrate the prevalence of two factors that in turn configure the factor of legal termination of pregnancy.

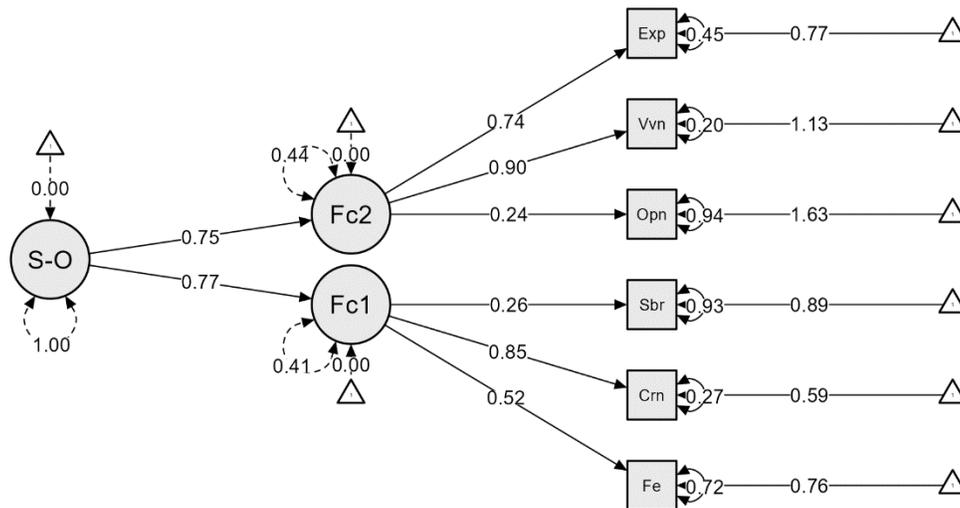


Figure 1: Confirmatory Factor Model

The fit and residual analysis suggests the contrast of the model and the non-rejection of the hypothesis related to the differences

between the theoretical structure reported in the literature with respect to the model established in the present work (Table 6).

Index	value
Comparative Fit Index (CFI)	0.948
Tucker-Lewis Index (TLI)	0.889
Bentler-Bonett Non-normed Fit Index (NNFI)	0.889
Bentler-Bonett Normed Fit Index (NFI)	0.920
Parsimony Normed Fit Index (PNFI)	0.429
Bollen's Relative Fit Index (RFI)	0.829
Bollen's Incremental Fit Index (IFI)	
Relative Noncentrality Index (RNI)	

Table 6: Fit Indices

4. Discussion

The contribution of this study consists of the establishment of an exploratory factor structure of three main axes called: knowledge and beliefs, personal experiences and access to health services related to pregnancy interruption. The results suggest a distancing from the theoretical structure which considers additional factors: opinions on abortion policy, social and cultural perspective, attitudes towards information [23]. In this sense, it is recommended to reduce the number of factors and indicators to achieve model fit, although the inclusion of the items that measure the other dimensions can be carried out after reformulation [24]. This is the case of the social and cultural perspective that in new generations has been replaced by a gender perspective [25]. Or, the attitudes towards information that were disseminated in the media and now permeate social and digital networks [26]. Consequently, updating these dimensions will allow establishing a robust model of explanatory factors of abortion through the request for termination of pregnancy.

The analysis of eigenvalues which indicates the percentage of total variance explained from the number of observations reveals that the factor structure is explained from two indicators. In other words, abortion interruption is explained with items related to reason and experience. The structure includes two factors related to knowledge and personal experiences which are linked to six items. The fit and residual values suggest non-rejection of the hypothesis related to the significant differences between the theoretical structure with respect to the empirical observations.

Therefore, it is suggested to investigate the third factor that would explain the emotions around the request for termination of pregnancy and that would increase the percentage of explained variance. Precisely, the area of opportunity of the present work lies in the establishment of the third predominant factor in the literature and that would theoretically explain the request for termination of pregnancy.

5. Conclusions

The objective of this work was to establish an explanatory factor model of the dimensions of the request for termination of pregnancy. The results suggest a reduction of the original scale and the updating of the dimensions related to the social and cultural perspective with a gender perspective. Or, the evaluation of traditional media by the evaluation of socio-digital networks. The inclusion of the aforementioned dimensions will allow us to anticipate dimensional scenarios in which the request for abortion is reflected as a structure of reasons, decisions and actions to terminate the pregnancy.

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Annex A

Survey on Request for Termination of Pregnancy

Instructions: We appreciate your participation in this survey, which aims to understand requests for termination of pregnancy at our university. The information provided will be anonymous and confidential. Please answer honestly and accurately.

Section 1: Demographic Information

1. Age:

- Under 18 years
- 18-22 years
- 23-27 years
- More than 27 years

2. Gender:

- Female
- Male
- Other
- I prefer not to say

3. Marital Status:

- Single
- Married
- Free Union
- Other

4. Level of studies:

- Degree
- Master's degree
- Ph.D.

5. Career or study program:

Section 2: Experience and Knowledge about Termination of Pregnancy

6. Do you know reproductive rights in Mexico?

- Yeah
- No

7. Do you know what the legal conditions are for terminating a pregnancy in your state?

- Yeah
- No

8. Do you think that information about pregnancy termination is easily available at the university?

- Yeah
- No

Section 3: Perceptions and Attitudes

9. Do you agree that universities provide information about pregnancy termination?

- Totally agree
- OK
- Neutral
- In disagreement
- Totally disagree

10. Do you think women should have the right to decide about terminating a pregnancy?

- Totally agree
- OK
- Neutral
- In disagreement
- Totally disagree

11. What is your perception about people who decide to terminate their pregnancies?

- Very positive
- Positive
- Neutral
- Negative
- Very negative

Section 4: Personal Experience

12. Have you requested or do you know someone who has requested a termination of pregnancy?

- Yes, I have requested
- Yes, I know someone who has applied
- No

13. If you answered "Yes" to the previous question, please share the main reason for the request (optional):

Section 5: Access and Support

14. Do you think the university should provide support and resources for students who decide to terminate their pregnancy?

- Yeah
- No

15. Do you know if there are psychological support services at the university for students considering termination of pregnancy?

- Yeah
- No

16. What type of support do you consider most important for students in this situation? (you can select more than one option)

- Medical information

-
- Psychological Support
 - Legal advice
 - Financial support
 - Other (please specify)

Section 6: Additional Comments

17. Do you have any comments or suggestions on how the university could improve information management and support related to pregnancy termination? (optional)

Thanks for your participation.

Annex B

#Factors

Factor1 = ~ lambda_1_1* Faith + lambda_1_2* Belief + lambda_1_3* Know
Factor2 = ~ lambda_2_1*Opinion + lambda_2_2* Experience + lambda_2_3*Experience

#Second-orderfactor

SecondOrder = ~ gamma_1_1*Factor1 + gamma_1_2*Factor2

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