Biotory
Globalize Expand Your Knowledge

Open Access
Volume 02, Issue 01 - 2025

Journal of Public Health Research and Epidemiology

Research Article

DOI: http;/01.2025/JPHRE/009.

Adherence to the Treatment in the Covid-19 Era

Cruz Garcìa Lirios
Department Social Work, Mexico University.

Article Info

Received Date: 20 December 2024, Accepted Date: 30 December 2024, Published Date: 03 January 2025

*Corresponding author: Cruz Garcìa Lirios, Department Social Work, Mexico University.

Citation: Cruz Garcìa Lirios. (2025). “Adherence to the Treatment in the Covid-19 Era”. Journal of Public Health Research and Epidemiology, 2(1); DOI: http;/01.2025/JPHRE/009.

Abstract:

Background: Cancer is a disease that explains the vulnerability in which women are in reproductive health with an impact on occupational health and public health, even when In Mexico the prevalence rate is lower than the other member countries OECD, Its impact on human development and local development shows the Importance that the disease has on communities rather than in cities where policies of prevention through screening and medical examination seemed to slow the trend but show a lack opportunities and capabilities of health centers in rural areas.

Objective. Establish the reliability, validity and correlations between variables reported in the literature regarding its weighting in a public hospital.

Method. A non-experimental, cross-sectional and exploratory study with a nonrandom selection of 100 patients from a public hospital in the State of Mexico was held. Scale of Treatment Adherence built.

Results. From a structural model se showed relationships in adjustment paths determining which had an impact on knowledge treatment adherence behavior.

Conclusion. The boundaries of design, sampling and analysis of the study are noted and recommended.

Keywords: public health; deliberation; beliefs; knowledge; treatment adherence.

Introduction:

COVID is a disease with a high prevalence between the member countries of the Organization for Economic Co-operation and Development (OECD) during the period from 2019 to 2022 [1,2].

Psychological and social studies on public health have established three phases on 1) prevention or primary stage in which the system avocet to reduce risk by promoting styles of life free of violence; 2) secondary prevention consists of immediate attention from an early warning; 3) tertiary prevention or response indicated by long - term treatment and rehabilitation, conflict transformation and reconciliation [3].

Thus, the theory of reasoned action, theory of planned behavior and theory of adherence explain the dependency relationships between psychosocial determinants involved in each of the stages of primary, secondary and tertiary care [4]. The theory of reasoned action, *gross mode,* argues that the behavior expected in each of the phases of care is determined by perceptions of control, beliefs, norms, attitudes and intentions [5]. It is a predictive model of behaviors that reduce risks around a public health problem from increased preventive skills such as searching for information and requests for medical tests [6]. Such skills are mediated by provisions for personal health and rational decision making.

However, the generality of information concerning a disease is not always linked to specific decisions and

specific behaviors [7]. Therefore, psychosocial studies delineated reasoned action model in a planned behavior [8]. The theory of planned behavior assumes that individuals process information surrounding a disease in a way that increases their perceptions of control of the situation [9]. In this sense, people categorize information and link planned strategies to reduce risks of a diagnosed disease and if adherence to a biomedical treatment [10]. Unlike the model of reasoned action, planned behavior model includes a close link between perceptions of control regarding real control of their situation as in the case of treatment adherence [11]. Even the planned behavior is the result of a specific control under that is not enough to assume an ability to carry out rehabilitation, it is essential to locate this ability in the same period of disease and not just as an experience years ago [12]. Although the theory of planned behavior explains in more detail the relationship between psychosocial variables that affect treatment adherence, some reported in the state-of-the-art findings show that there is an interrelationship between psychosocial factors regarding biomedical, institutional variables and cultural.

Thus, the theory of treatment adherence warns the importance of organizational culture on perceptions of control theory of planned behavior identified as major factors in adherence to treatment [13]. This is because the model of adherence to treatment of the assumption that intercultural values facilitate treatment adherence in settings and institutions where they work people of different nationalities and different [14]. That is, to the extent that a culture potentiates rights to reproductive and occupational health, increases self-care values and the perception of control over personal situation.

The aim of this study is to establish the reliability and validity of scales measuring perceptions [15], beliefs [16], values [17], motives [18], knowledge [19], attitudes [20], intentions [21] and behaviors [22] related to adherence to treatment of cervical cancer and establish dependency relationships between the variables determining adherence to treatment.

The research question that the study seeks to answer is: What are the differences and similarities between the relations of theoretical dependence of variables determining treatment adherence regarding correlations weighted?

Therefore, the null hypothesis concerns the adjustment of relations of theoretical dependence on the estimated and the alternative hypothesis is that the theoretical structure is different than the weighted structure correlations.

Method:

A non - experimental, cross - sectional and exploratory study with a nonrandom selection of 100 patients from a public hospital in the State of Mexico was made. 60% finished primary school, 21% high, 12% high school and 7% entered a form of higher education. 64% have lower monthly income to 3,500 pesos (average = 3300 and Standard Deviation = 124.34), 22% entered between 3500 and 7000 pesos (average = 5612 and Standard Deviation = 234.23) and 14% enter more 7000 pesos (average = 7541 and Standard deviation = 245.35) per month. 35% are single, 40% are married and 25% are separated or divorced.

It was used constructed Scale of Adherence to Treatment [23] from the definitions reported in the literature. It includes 24 items that measure eight dimensions related perceptions, beliefs, values, motives, knowledge, attitudes, intentions and behaviors regarding adherence to treatment of COVID-19 (see Table 1).

Construct	Definitions	Indicators	Measurement
Perception	Refers to expectations of infections, diseases, deaths and vaccines related to COVID-19 [24]	By using collective transport, I will be more likely to get COVID-19	0 = "not at all likely" to 5 = "quite likely"
Beliefs	Refers to unverified information on infections, diseases, deaths and vaccines related to COVID-19 [25]	I think that using collective transport is exposing yourself to the contagion of COVID-19	0 = "not at all likely" to 5 = "quite likely"
Values	Refers to principles that guide the prevention or exposure of infections, diseases, deaths and vaccines related to COVID-19 [26]	Respect for personal space prevents the spread of COVID-19	0 = "doesn't look like my situation" to 5 = "pretty much like my situation"
Motives	Refers to reasons of exposure or prevention of infections, diseases,	I prefer to look for work using public transport and expose myself to the	0 = "not at all likely" to 5 = "quite likely"

	deaths and vaccines related to COVID-19 [27]	contagion of COVID-19 than unemployed confinement	
Knowledge	Refers to data management of infections, diseases, deaths and vaccines related to COVID-19 [28]	I am aware of the daily infections by COVID-19	0 = "never" to 5 = "always"
Attitudes	Refers to provisions of infections, diseases, deaths and vaccines related to COVID-19 [29]	COVID-19 is like a cold or flu	0 = "strongly agree" to 5 = "quite agree"
Intention	Refers to the probability of avoiding and being exposed to infections, diseases, deaths and vaccines related to COVID-19 [30]	I would expose myself to the spread of COVID-19 on public transport if I am asked for a job	0 = "not at all likely" to 5 = "quite likely"
Behavior	Refers to avoidances and exposures of infections, diseases, deaths and vaccines related to COVID-19 [31]	This week I use public transport to go to work, even if I get COVID-19	0 = "no day" to 5 = "all week"

Table 1: Operationalization of variables.

Source: Elaborated with literature review

Operational definitions were established from the allusive psychosocial characteristics searching and management of information related to COVID-19 [32]; check the application and / or medical examination; confirmation of the initial diagnosis; drug intake; assisting rehabilitation or therapy sessions.

The Delphi technique for homogenization of the meanings of words included in the items of the scale was used [33]. The surveys were conducted in the office of general hospital social work. It was guaranteed in writing the confidentiality of the results and reported that they do not affect the quality of care or payment of medical services (see Table 2).

Sex	Age	Scholarship	Profession	Antiquity	Income
Male	45	Postdoc	Psychology	13	38'235,00
Male	36	Postdoc	Psychology	12	29'321,00
Male	52	Postdoc	Sociology	15	24'781,00
Female	47	Doctorate	Management	10	34'213,00
Female	36	Doctorate	Management	14	45'712,00
Male	38	Doctorate	Economy	13	22'546.00
Female	44	Postdoc	Psychology	11	26'435,00

Table 2: Descriptive of the judges.

Source: Elaborated with data study

The information was processed in the Statistical Package for Social Sciences (SPSS) and Structural Analysis of Moments (AMOS) [34]. An analysis of internal consistency with Cronbach 's alpha parameter was performed [35]. Adequacy parameters and sphericity (Barttlet test and Kayser Meyer Olkin) were estimated to carry out the estimation of validity. Factor analysis was carried out considering the number of items and sample size [36]. In this regard, an exploratory analysis with promax rotation and obliquity criterion was performed. subsequently conducted a confirmatory analysis least squares. Setting parameters and residual for the null hypothesis were calculated (see Table 3).

Parameter	Definition	Equation
M	Mean	$\text{Mean} = \frac{\sum fx}{\sum f}$
SD	Standard Deviation	$\text{SD} = \sqrt{\frac{\sum \lvert x - \bar{x} \rvert^2}{n}}$
KMO	Kayser Meyer Olkin	$KMO = \frac{\sum\sum_{j \neq k} r_{jk}^2}{\sum\sum_{j \neq k} r_{jk}^2 + \sum\sum_{j \neq k} p_{jk}^2}$
Crombach's Alpha	Instrument consistency	$\alpha = \frac{k}{k-1}\left(1 - \frac{\sum V_i}{V_t}\right)$
Sphericity	Barttlet's Sphericity Test	$\chi^2 = \frac{(N-k)\ln(S_p^2) - \sum_{i=1}^{k}(n_i - 1)\ln(S_i^2)}{1 + \frac{1}{3(k-1)}\left(\sum_{i=1}^{k}(\frac{1}{n_i - 1}) - \frac{1}{N-k}\right)}$
SEM	Structural Equation Modeling	$y_1 = \gamma_{11} x_1 + \zeta_1$
X^2	Chi Squared	$\chi_c^2 = \sum \frac{(O_i - E_i)^2}{E_i}$
GFI	Goodness of Fit Index	$1 - \frac{tr(\Sigma^{-1}S - I)^2}{tr(\Sigma^{-1}S)^2}$
CFI	Comparative Fit Index	$\text{CFI} = 1 - \frac{\chi_M^2 - df_M}{\chi_B^2 - df_B}$
RMSEA	Root Mean Squared Error of Approximation	$\text{RMSEA} = \sqrt{\frac{\frac{\chi^2}{df}}{N} - 1}$

Table 3: Statistical equations.

Source: Elaborated with literature review.

Results:

The internal consistency of the overall scale (McDougal`s = 0.718 & Cronbach's Alpha = 0.783)) and

the confidence interval lower bound (McDougal's = 0.642 & Cronbach's alpha = 0.722) and Upper bound (McDougal's = 0.795 & Cronbach's alpha = 0.835) (see Table 4).

Estimate	McDonald's ω	Cronbach's α	mean	sd
Point estimate	0.718	0.783	2.509	0.484
95% CI lower bound	0.642	0.722		
95% CI upper bound	0.795	0.835		

Table 4: Frequentist Scale Reliability Statistics.

Subscales of perceptions (alpha = 0.792), values (alpha = 0.781), motives (0.756), attitudes (alpha = 0.701) and intentions (alpha = 0.741) reached values optimal, but belief subscales (alpha = 0.743), had sufficient values. (see Table 5).

	RC1	RC2	RC3	RC4	RC5	Uniqueness
Reactivo 1			0.887			0.278
Reactivo 2	-0.407	0.444		0.405	0.795	0.116
Reactivo 3		-0.934				0.077
Reactivo 4	-0.640	0.490				0.167
Reactivo 5		0.581			-0.698	0.155
Reactivo 6	0.882					0.050
Reactivo 7	0.825					0.098
Reactivo 8		0.879				0.151
Reactivo 9	0.905					0.037
Reactivo 10		0.732				0.129
Reactivo 11		0.885			0.404	0.162
Reactivo 12	0.800	0.545				0.059
Reactivo 13		0.679		0.419		0.123
Reactivo 14			-0.625			0.155
Reactivo 15	-0.762	0.438				0.055
Reactivo 16		0.896				0.113
Reactivo 17	0.768					0.116
Reactivo 18	-0.836		0.429			0.150
Reactivo 19	0.935	0.406				0.096
Reactivo 20				1.045		0.160
Reactivo 21	0.876					0.041
Reactivo 22			0.610			0.331
Reactivo 23			0.843			0.151
Reactivo 24		0.764				0.118

Table 5: Component loadings.

Source: Elaborated with data study. *Note.* Applied rotation method is promax.

Extraction method: principal axes with promax rotation and obliquity criterion. sphericity and adequacy ⌈χ2 = 47.23 (46gl) p = 0.000; KMO = 0,602⌋. M = average, SD = Standard Deviation; F1 = Perceptions (21% of the total variance explained), F2 = Beliefs (14% of the total variance explained), F3 = values (7% of the total variance explained), F4 = Attitudes (3% of the total variance explained), F5 = Intentions (2% of the total variance explained). The parameters of adequacy and sphericity ⌈χ2 = 47.23 (36gl) p = 0.000; KMO = 0,602⌋ permitieron carry out the assessment of the validity of constructs. Thus, eight factors related to perceptions (eigenvalue = 8.760 and proportion variance = 0.365%), beliefs (eigenvalue = 6.733 and proportion variance 0.281), values (eigenvalue = 2.666 and proportion variance = 0.111) attitudes (eigenvalue = 1.638 and proportion variance = 0.068) and intentions (eigenvalue = 1.117 and proportion variance = 0.047) (see Table 6).

	Eigenvalue	Proportion var.	Cumulative
RC1	8.760	0.365	0.365
RC2	6.733	0.281	0.646
RC3	2.666	0.111	0.757
RC4	1.638	0.068	0.825
RC5	1.117	0.047	0.871

Table 6: Component's characteristics

Source: Elaborated with data study

The perceptions were associated positively and significantly with perceptions and these with the beliefs. In contrast the perceptions and beliefs had a near zero spurious relationship. In the establishment of model trajectories of determining relations of behavior adherence to treatment. As for determining relations adherence to treatment, the route from belief to attitudes and from these to the intention explains the deliberate process adherence to treatment (see Table 7).

	RC1	RC2	RC3	RC4	RC5
RC1	1.000	-0.031	0.255	0.324	-0.341
RC2	-0.031	1.000	0.022	-0.031	-0.153
RC3	0.255	0.022	1.000	-0.125	0.006
RC4	0.324	-0.031	-0.125	1.000	-0.534
RC5	-0.341	-0.153	0.006	-0.534	1.000

Table 7: Component correlations

Source: Elaborated with data study

Finally, the adjustment parameters and residual ⌈χ2 = 290,330 (28 gl) p = 0.000; GFI = 0.927; CFI = 0.970; RMSEA = 0,003⌋ allowed to set the contrast of the null hypothesis was accepted. This means that the dependency relationships between eight variables

reported in the prior art correspond to estimates in determining relations model (see Figure 1).

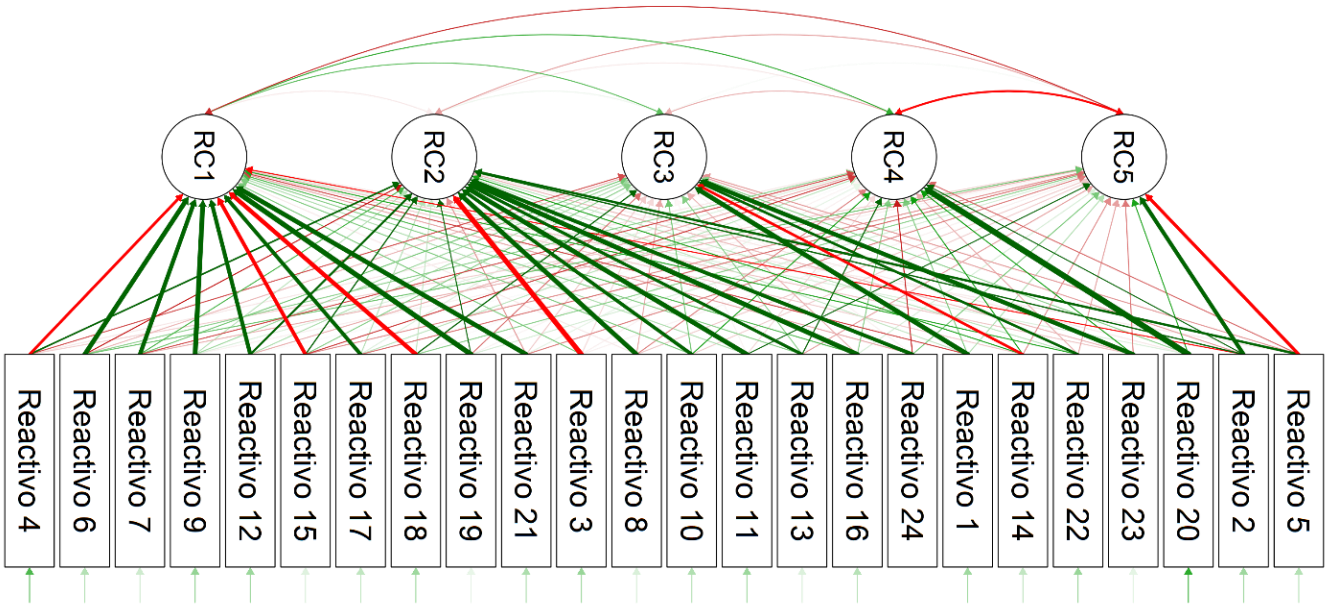

Figure 1. Path diagram.

Source: Elaborated with data study

Discussion:

The contribution of this study was to validate the Treatment Adherence Scale. A structure of five factors was found that explained 47% of the total variance. In other words, adherence to treatment, understood as a self-care and family support strategy, is made up of perceptions, values, beliefs, attitudes, and intentions related to prevention or exposure to COVID-19. The percentage of total explained variance suggests including other variables that the literature identifies as risk behaviors and self-care motives.

In relation to the theory of adherence to treatment that anticipates self-care because of cognitive factors that process surrounding information about the pandemic[36], this paper warns that perception is the predominant factor. Lines of study related to the risks and usefulness of anti-COVID-19 policies will allow progress towards investigating the effects of confinement and distancing of people on decisions and actions aimed at exposure or prevention of infections, diseases or deaths by COVID-19.

Regarding treatment adherence studies that highlight self-care and social support as central indicators, this study suggests that the values derive from social support [37], since they are principles that guide the exposure or prevention of COVID-19. Future research related to the modeling and empirical testing of social support and self-care factors will make it possible to anticipate research scenarios concerning the influence of the group to which the respondent belongs.

In relation to the model proposed for the study of adherence to treatment from five cognitive dimensions [38], this study recommends including the variables of self-care and social support as prominent factors in the literature consulted. The future approach to adherence to the treatment of some variant of COVID-19 will predict contagion from risk decisions and behaviors.

Regarding the instrument that measures adherence to treatment, the present work warns that the reliability reached a transitory value of the internal consistency of the scale. It then means that the exclusion of items, the inclusion of new items and the restatement of items will be necessary to increase reliability. In the future, the scale is expected to allow measurement of more than the five established dimensions.

Conclusion:

The contribution of this study is to have established reliability and validity of an instrument that measures determinants of treatment adherence behavior psychosocial variables.

However, no experimental design, selection probabilistic and exploratory factor analysis represent limits that affect the findings of this study. It is therefore necessary to carry out an experimental study with a probabilistic sample and confirmatory factor analysis to demonstrate the direct effect of beliefs on behavior and determining indirect relationship through knowledge.

Under that model determining relations can be included other organizational and psychological variables such as work environment, commitment, innovation, self - concept, self - efficacy, locus of control, assertiveness or anxiety a new specification supported by organizational theories and necessary theories of personality.

References:

1. Náfrádi L, Galimberti E, Nakamoto K, Schulz PJ. Intentional and unintentional medication non-adherence in hypertension: the role of health literacy, empowerment and medication beliefs. J Public Health Res [Internet]. 2016Dec.21 [cited 2022Jan.19];5(3).
2. Wong S, Chan V. The digital pill: Tracking medication adherence through electronic modalities. UWOMJ [Internet]. 2016 May 11 [cited 2022 Jan. 19];85(1):38-40.
3. Azmi NL, Md Rosly NA, Tang HC, Che Darof AF, Zuki ND. Assessment of medication adherence and quality of life among patients with type 2 diabetes mellitus in a tertiary hospital in Kelantan, Malaysia. JoP [Internet]. 2021 Jul. 31 [cited 2022 Jan. 20];1(2):79-86.
4. Erku DA, Ayele AA, Mekuria AB, Belachew SA, Hailemeskel B, Tegegn HG. The impact of pharmacist-led medication therapy management on medication adherence in patients with type 2 diabetes mellitus: a randomized controlled study. Pharm Pract (Granada) [Internet]. 2017 Sep. 3 [cited 2022 Jan. 19];15(3):1026.
5. Lisum K, Waluyo A, Nursasi AY. Treatment Adherence among Tuberculosis patients: A Concept Analysis. Open Access Maced J Med Sci [Internet]. 2021 Dec. 19 [cited 2022 Jan. 19];9(T5):20-8.
6. Nganou-Gnindjio, C. , Domning, H. , Mfeukeu-Kuate, L. , Hamadou, B. , Kamdem, F. , Bediang, G. , Tankeu, A. , Menanga, A. and Kingue, S. (2018) Effect of Therapeutic Group Education on Adherence and Blood Pressure Control among Uncontrolled Hypertensive Patients in Sub Saharan Africa. *World Journal of Cardiovascular Diseases*, **8**, 183-195.
7. El-Hadiyah, T. , Mustafa Madani, A. , Abdelrahim, H. and Khidir Yousif, A. (2016) Factors Affecting Medication Non Adherence in Type 2 Sudanese Diabetic Patients. *Pharmacology & Pharmacy*, **7**, 141-146.
8. Achury-Saldaña Diana Marcela, Restrepo Laura, Munar María Kamila, Rodríguez Indira, Cely María Camila, Abril Natalia et al . Effect of an expert patient program in heart failure. Enferm. glob. [Internet]. 2020 [citado 2022 Ene 19] ; 19(57): 479-506.
9. Alalaqi A, Lawson G, Obaid Y, Tanna S. Adherence to cardiovascular pharmacotherapy by patients in Iraq: A mixed methods assessment using quantitative dried blood spot analysis and the 8-item Morisky Medication Adherence Scale. PLoS One. 2021 May 14;16(5):e0251115.
10. Fernandez-Arias M, Acuna-Villaorduna A, Miranda JJ, Diez-Canseco F, Malaga G. Adherence to pharmacotherapy and medication-related beliefs in patients with hypertension in Lima, Peru. PLoS One. 2014 Dec 3;9(12):e112875.
11. . S, Goel MK. Non-Adherence to Anti-Hypertensive Treatment. Indian J Community Health [Internet]. 2020 Mar. 31 [cited 2022 Jan. 19];32(1):126-9.
12. Watzlaf VJ, Moeini S, Matusow L, Firouzan P. VOIP for Telerehabilitation: A Risk Analysis for Privacy, Security and HIPAA Compliance: Part II. Int J Telerehab [Internet]. 2011 May 24 [cited 2022 Jan. 19];3(1).
13. Guerra C, Calvo F, García-Ventura S, Carbonell X. Evaluación cualitativa de un programa psicosocial de gestión del tiempo libre en un grupo de pacientes con patología dual. HAAJ [Internet]. 1 de febrero de 2019 [citado 19 de enero de 2022];19(1):110-7.
14. Lugo-González I, Vega-Valero C. Treatment adherence behaviors and asthma control: The role of treatment perception. Interacciones [Internet]. 23Mar.2020 [cited 19Jan.2022];6(1):e222.
15. Sánchez Arellano AA, Navarro-Contreras G, Padrós Blázquez F, Cruz Torres CE. Relationship between self-efficacy, social support, treatment adherence and HbA1C by risk perception level in DM2 patients. NS [Internet]. 2020Oct.14 [cited 2022Jan.19];12(25).
16. Náfrádi L, Galimberti E, Nakamoto K, Schulz PJ. Intentional and unintentional medication non-adherence in hypertension: the role of health literacy, empowerment and medication beliefs. J

Public Health Res [Internet]. 2016Dec.21 [cited 2022Jan.19];5(3).
17. Rana MM, Islam MS, Akter J, Khatun S. Medication Adherence to Type 2 Diabetic Patients Hospitalized at a Tertiary Care Hospital in Bangladesh: Diabetic Medication Adherence. JHSCI [Internet]. 2019Dec.31 [cited 2022Jan.19];9(3):159-67.
18. Patel NS, Christian DS, Kamdar DJ, Patel KR. Treatment adherence among asthma patients attending a hospital of Ahmedabad. Indian J Community Health [Internet]. 2018 Jun. 30 [cited 2022 Jan. 19];30(2):127-32.
19. Fandinata SS, Ernawati I. The Effect of Self-reminder Card to the Level of Adherence of Hypertension Patients in Community Health Center in Surabaya. Open Access Maced J Med Sci [Internet]. 2020 Oct. 17 [cited 2022 Jan. 19];8(E):647-52.
20. Timlin U, Hakko H, Heino R, Kyngäs H. Factors that Affect Adolescent Adherence to Mental Health and Psychiatric Treatment: a Systematic Integrative Review of the Literature. Scand J Child Adolesc Psychiatry Psychol [Internet]. 2015Jul.14 [cited 2022Jan.19];3(2):99-107.
21. Cruz GARCÍA LIRIOS. Proposal of Categories for the Retrospective Documentary Study of Treatment Adherence. 9(2): 2020. ANN. MS.ID.000710.
22. Hernández Valdés J, Juárez Nájera M, Bustos Aguayo JM, Bermúdez Ruíz G, Quintero Soto ML, Rosas Ferrusca FJ, Rincón Ornelas RM, García Lirios C. Propuesta de categorías para la investigación documental retrospectiva sobre la adherencia al tratamiento. Rev. Med. [Internet]. 4 de junio de 2021 [citado 19 de enero de 2022];28(2):11-4.
23. Guillén JC, Martínez Muñoz E, Espinoza Morales F, Juárez Nájera M, Bermúdez Ruíz G, García Lirios C, Quiroz Campas CY, Quintero Soto ML, Velez-Baez SS, López de Nava-Tapia S. Modelamiento de la adherencia al tratamiento de las enfermedades adquiridas por asimetrías entre las demandas laborales y el autocontrol. cysa [Internet]. 14 de octubre de 2021 [citado 19 de enero de 2022];5(3):13-26.
24. Bautista Miranda M, Aldana Balderas WI, García Lirios C. Análisis de expectativas de adhesión al tratamiento del Virus de Inmunodeficiencia Humana (VIH) en estudiantes de una Universidad Pública. PERS [Internet]. 19 de septiembre de 2018 [citado 19 de enero de 2022];20(1).
25. Quintero Soto M, García Lirios C, Sánchez Sánchez A, Espinoza Morales F, Bermúdez Ruíz G. Reflective factor structure of occupational health governance. SUMMA [Internet]. 16 de noviembre de 2019 [citado 19 de enero de 2022];1(1):69-6.
26. Molina Ruíz HD, Martínez Muñóz E, Bustos Aguayo JM, Juárez Nájera M, García Lirios C. REPRESENTACIONES SOCIOAMBIENTALES PERIURBANAS. kuxulkab [Internet]. 3 de septiembre de 2019 [citado 19 de enero de 2022];26(54):05-12.
27. López de Nava-Tapia S, Vilchis Mora FJ, Morales-Flores ML, Olvera-López Ángeles A, Delgado Carrillo MA, Mendoza-Alborfeida D, García Lirios C. Modelo especificado a partir de significados en torno al clima y la norma institucional de trabajadores de un centro de salud en México. Revista Ehquidad [Internet]. 21 de enero de 2019 [citado 19 de enero de 2022];(11):11-25.
28. Martínez Muñoz E, Carreón Guillén J, Sánchez Sánchez A, Espinoza Morales F, Anguiano Salazar F, Bucio Pacheco C, García Lirios C, Quintero Soto ML. Hybrid determinant model of the coffee entrepreneurship. IS [Internet]. 1 de noviembre de 2019 [citado 19 de enero de 2022];(8).
29. García Lirios C, Celia Yaneth Quiroz-Campas, Javier Carreón-Guillén, Francisco Espinoza-Morales, Alejandra Navarrete Quezada. Confirmatory model of risk perception in the Covid-19 era . J Mkt Inf Sys [Internet]. 2021Dec.29 [cited 2022Jan.19];4(2):97-106.
30. García Lirios C. Modelamiento del compromiso laboral ante la COVID-19 en un hospital público del centro de México: Modelamiento del compromiso laboral. Gac Med Bol [Internet]. 30 de junio de 2021 [citado 19 de enero de 2022];44(1):34-9.
31. LlamasAréchigaB, López de Nava-TapiaS, García-LiriosC. Especificación de un modelo de la adhesión al tratamiento. ajayu [Internet]. 31 de marzo de 2019 [citado 19 de enero de 2022];17(1):140-6.
32. García Lirios C. Formación profesional en la era post COVID-19. ICSA [Internet]. 5 de junio de 2021 [citado 19 de enero de 2022];9(18):42-7.
33. García Lirios C. Metaanálisis dimensional de la confianza: implicaciones para la comunicación social de la covid-19. CITAS [Internet]. 14 de diciembre de 2020 [citado 19 de enero de 2022];6(1).
34. García Lirios C, Bustos Aguayo J, Juárez Nájera M. Percepción e intención de riesgo ante COVID-19: Risk perception and intention to COVID-19. SINFRONTERA [Internet]. 31 de diciembre de 2020 [citado 19 de enero de 2022];(34):1-26.
35. García Lirios C, Hernánez Valdés J, Molina González M. Modelling the perception of security in the Covid19 era . SINFRONTERA [Internet]. 1 de

noviembre de 2021 [citado 19 de enero de 2022];(36).
36. García Lirios C. Percepción de la inseguridad pública en la era post COVID-19: Perception of public insecurity in the post Covid-19 era. Proyección Social [Internet]. 7 de abril de 2021 [citado 19 de enero de 2022];4(1):45-3.
37. García Lirios C, Juárez Nájera F, Bustos Aguayo JM, Juárez Nájera M, Juárez Nájera FR. Perceptions about Entrepreneurship in the COVID-19 Era. Razón Crit. [Internet]. 1 de enero de 2022 [citado 19 de enero de 2022];(12).