Volume 7, Issue 13 — July — December — 2021

ECORFAN

Journal- Republic of El Salvador

ISSN-On line: 2414-4886

ECORFAN®

ECORFAN-Journal Republic of El Salvador

Chief Editor
ALAS-SOLA, Gilberto Américo. PhD

Executive Director
RAMOS-ESCAMILLA, María. PhD

Editorial Director
PERALTA-CASTRO, Enrique. MsC

Web Designer
ESCAMILLA-BOUCHAN, Imelda. PhD

Web Diagrammer
LUNA-SOTO, Vladimir. PhD

Editorial Assistant
TREJO-RAMOS, Iván. BsC

Translator
DÍAZ-OCAMPO, Javier. BsC

Philologist
RAMOS-ARANCIBIA, Alejandra. BsC

ECORFAN Journal-Republic of El Salvador, Volume 7, Issue 13, July-December 2021, is a journal edited semestral by ECORFAN. San Quentin Avenue, R 1-17 Miralvalle - San Salvador-El Salvador. WEB: http://www.ecorfan.org/republicofelsalvador, journal@ecorfan.org. Editor in Chief: ALAS-SOLA, Gilberto Américo, PhD ISSN: 2414-4886. Responsible for the latest update of this number ECORFAN Computer Unit. ESCAMILLA-BOUCHÁN, Imelda, LUNA-SOTO, Vladimir. San Quentin Avenue, R 1-17 Miralvalle - San Salvador-El Salvador last updated December 31, 2021.

The opinions expressed by the authors do not necessarily reflect the views of the editor of the publication.

It is strictly forbidden to reproduce any part of the contents and images of the publication without permission of the National Directorate of Copyright.

ECORFAN Journal-Republic of El Salvador

Definition of Journal

Scientific Objectives

Support the international scientific community in its written production Science, Technology and Innovation in the Field of Social Sciences, in Subdisciplines of international migration law, human rights-diplomatic and consular protection, migrant population in a vulnerable situation, public policies and projects from a country perspective.

ECORFAN-Mexico SC is a Scientific and Technological Company in contribution to the Human Resource training focused on the continuity in the critical analysis of International Research and is attached to CONACYT-RENIECYT number 1702902, its commitment is to disseminate research and contributions of the International Scientific Community, academic institutions, agencies and entities of the public and private sectors and contribute to the linking of researchers who carry out scientific activities, technological developments and training of specialized human resources with governments, companies and social organizations.

Encourage the interlocution of the International Scientific Community with other Study Centers in Mexico and abroad and promote a wide incorporation of academics, specialists and researchers to the publication in Science Structures of Autonomous Universities - State Public Universities - Federal IES - Polytechnic Universities - Technological Universities - Federal Technological Institutes - Normal Schools - Decentralized Technological Institutes - Intercultural Universities - S & T Councils - CONACYT Research Centers.

Scope, Coverage and Audience

ECORFAN Journal-Republic of El Salvador is a Journal edited by ECORFAN-Mexico S.C in its Holding with repository in Republic of El Salvador, is a scientific publication arbitrated and indexed with semester periods. It supports a wide range of contents that are evaluated by academic peers by the Double-Blind method, around subjects related to the theory and practice of international migration law, human rights-diplomatic and consular protection, migrant population in a vulnerable situation, public policies and projects from a country perspective with diverse approaches and perspectives , That contribute to the diffusion of the development of Science Technology and Innovation that allow the arguments related to the decision making and influence in the formulation of international policies in the Field of Social Sciences. The editorial horizon of ECORFAN-Mexico® extends beyond the academy and integrates other segments of research and analysis outside the scope, as long as they meet the requirements of rigorous argumentative and scientific, as well as addressing issues of general and current interest of the International Scientific Society.

Editorial Board

GUZMÁN - HURTADO, Juan Luis. PhD
Universidad de Santiago de Compostela

ALIAGA - LORDEMANN, Francisco Javier. PhD
Universidad de Zaragoza

ARANCIBIA - VALVERDE, María Elena. PhD
Universidad San Francisco Xavier de Chuquisaca

BANERJEE, Bidisha. PhD
Amity University

NIÑO - GUTIÉRREZ, Naú Silverio. PhD
Universidad de Alicante

CAMPOS - QUIROGA, Peter. PhD
Universidad Real y Pontifica de San Francisco Xavier de Chuquisaca

CUBÍAS-MEDINA, Ana Elizabeth. PhD
Universidad Carlos III de Madrid

FELDMAN, German. PhD
Johann Wolfgang Goethe Universität

HIRA, Anil. PhD
Claremont Graduate School

CHAPARRO, Germán Raúl. PhD
Universidad Nacional de Colombia

Arbitration Committee

DE SAN JORGE - CARDENAS, Xóchitl Ma Del Carmen. PhD
Universidad Veracruzana

PERALES - SALVADOR, Arturo. PhD
Universidad Autónoma de Chapingo

PEREZ - VEYNA, Oscar. PhD
Universidad Juárez del Estado de Durango

PEREZ - BRAVO, Julia. PhD
Escuela Libre de Ciencias Políticas y Administración Pública

PLASCENCIA - DE LA TORRE, Gloria María. PhD
Universidad de Guadalajara

REYNOSO-IBARRA, Omayra Yolanda. PhD
Instituto Tecnológico Superior de San Luis Potosí

RIOS - VAZQUEZ, Nidia Josefina. PhD
Instituto Tecnológico de Sonora

RIVAS - CASTILLO, Jaime Roberto. PhD
Centro de Investigaciones y Estudios Superiores en Antropología Social

RODRÍGUEZ - PÉREZ, Ivonne. PhD
Universidad Autónoma del Estado de México

RUIZ - MARTINEZ, Julio César. PhD
Instituto Politécnico Nacional

SALAMANCA - COTS, Maria Rosa. PhD
Universidad Anáhuac Norte

Assignment of Rights

The sending of an Article to ECORFAN Journal-Republic of El Salvador emanates the commitment of the author not to submit it simultaneously to the consideration of other series publications for it must complement the Originality Format for its Article.

The authors sign the Authorization Format for their Article to be disseminated by means that ECORFAN-Mexico, S.C. In its Holding Republic of El Salvador considers pertinent for disclosure and diffusion of its Article its Rights of Work.

Declaration of Authorship

Indicate the Name of Author and Coauthors at most in the participation of the Article and indicate in extensive the Institutional Affiliation indicating the Department.

Identify the Name of Author and Coauthors at most with the CVU Scholarship Number-PNPC or SNI-CONACYT- Indicating the Researcher Level and their Google Scholar Profile to verify their Citation Level and H index.

Identify the Name of Author and Coauthors at most in the Science and Technology Profiles widely accepted by the International Scientific Community ORC ID - Researcher ID Thomson - arXiv Author ID - PubMed Author ID - Open ID respectively.

Indicate the contact for correspondence to the Author (Mail and Telephone) and indicate the Researcher who contributes as the first Author of the Article.

Plagiarism Detection

All Articles will be tested by plagiarism software PLAGSCAN if a plagiarism level is detected Positive will not be sent to arbitration and will be rescinded of the reception of the Article notifying the Authors responsible, claiming that academic plagiarism is criminalized in the Penal Code.

Arbitration Process

All Articles will be evaluated by academic peers by the Double Blind method, the Arbitration Approval is a requirement for the Editorial Board to make a final decision that will be final in all cases. MARVID® is a derivative brand of ECORFAN® specialized in providing the expert evaluators all of them with Doctorate degree and distinction of International Researchers in the respective Councils of Science and Technology the counterpart of CONACYT for the chapters of America-Europe-Asia- Africa and Oceania. The identification of the authorship should only appear on a first removable page, in order to ensure that the Arbitration process is anonymous and covers the following stages: Identification of the Journal with its author occupation rate - Identification of Authors and Coauthors - Detection of plagiarism PLAGSCAN - Review of Formats of Authorization and Originality-Allocation to the Editorial Board-Allocation of the pair of Expert Arbitrators-Notification of Arbitration -Declaration of observations to the Author-Verification of Article Modified for Editing-Publication.

Instructions for Scientific, Technological and Innovation Publication

Knowledge Area

The works must be unpublished and refer to topics of international migration law, human rights-diplomatic and consular protection, migrant population in a vulnerable situation, public policies and projects from a country perspective and other topics related to Social Sciences.

Presentation of the Content

In number eleven, is presented an article *Euthanasia: decided and informed end in human development,* by RAMOS-JAUBERT, Rocío Isabel, CEPEDA-GONZÁLEZ, María Cristina, MUÑOZ-LÓPEZ, Temístocles and RAMÍREZ- CHÁVEZ, Jorge, with adscription at Universidad Autónoma de Coahuila and Clínica de Otorrinolaringología, in the next article *Intimate partner violence in women attending an urban health center,* by MORENO-MONCLUB, Luisa Xiomara, CORTAZA-RAMÍREZ, Leticia, HERNÁNDEZ-RAMÍREZ, Zayra Vanessa and CRUZ-AVALOS, Geraldine, with adscription at Universidad Veracruzana, in the next article *Optimizing global processing time in the detection of depression related patterns in social networks,* by MARTINEZ-DIAZ, Damian, LUNA-ROSAS, Francisco Javier, MEDIAN-VELOZ, Gricelda and MALO-TORRES, Miriam with adscription in the Instituto Tecnológico de Aguascalientes, in the next article, *Seeing and thinking about suffering in the Middle Ages*, by SÁNCHEZ USÓN, María José, with adscription in the Universidad Autónoma de Zacatecas.

Content

Article	Page
Euthanasia: decided and informed end in human development RAMOS-JAUBERT, Rocío Isabel, CEPEDA-GONZÁLEZ, María Cristina, MUÑOZ-LÓPEZ, Temístocles and RAMÍREZ- CHÁVEZ, Jorge *Universidad Autónoma de Coahuila* *Clínica de Otorrinolaringología*	1-11
Intimate partner violence in women attending an urban health center MORENO-MONCLUB, Luisa Xiomara, CORTAZA-RAMÍREZ, Leticia, HERNÁNDEZ-RAMÍREZ, Zayra Vanessa and CRUZ-AVALOS, Geraldine *Universidad Veracruzana*	12-19
Optimizing global processing time in the detection of depression related patterns in social networks MARTINEZ-DIAZ, Damian, LUNA-ROSAS, Francisco Javier, MEDIAN-VELOZ, Gricelda and MALO-TORRES, Miriam *Instituto Tecnológico de Aguascalientes*	20-33
Seeing and thinking about suffering in the Middle Ages SÁNCHEZ USÓN, María José *Universidad Autónoma de Zacatecas*	34-43

Article

ECORFAN Journal-Republic of El Salvador

December 2021, Vol.7 No.13 1-11

Euthanasia: decided and informed end in human development

Eutanasia: final decidido e informado en el desarrollo humano

RAMOS-JAUBERT, Rocío Isabel†*, CEPEDA-GONZÁLEZ, María Cristina, MUÑOZ-LÓPEZ, Temístocles and RAMÍREZ-CHÁVEZ, Jorge

Universidad Autónoma de Coahuila. Faculty of Science, Education and Humanities. Saltillo, Coah. Mexico.
Clínica de Otorrinolaringología, Private consultation.

ID 1st Author: *Rocío Isabel, Ramos-Jaubert* / **ORC ID**: 0000-0003-3289-5390, **Researcher ID Thomson**: T-1652-2018, **CVU CONACYT ID**: 201861

ID 1st Co-author: *María Cristina, González-Cepeda* / **ORC ID**: 0000-0003-0676-2412, **Researcher ID Thomson**: T-1651-2018, **CVU CONACYT ID**: 567204

ID 2nd Co-author: *Temístocles, Muñoz-López* / **ORC ID**: 0000-0003-4940-5730, **Researcher ID Thomson**: X-7834-2018; **CVU CONACYT ID**: 202437

ID 3rd Co-author: *Jorge Ramírez Chávez* / **ORC ID**: 0000-0001-56810545

DOI: 10.35429/EJRS.2021.13.7.1.11 Received July 10, 2021; Accepted December 30, 2021

Abstract

Objective: To know values, behavior, emotions and feelings related to euthanasia. Identify conceptual positions of euthanasia. Methodology: Research with a qualitative-quantitative approach. The population is 300 university students from different areas of knowledge. Inclusion criteria: students, over 18 years of age, who know how to read and write and wish to participate in the study. The data collection instrument that is implemented for the research consists of 118 operational variables. The contribution of this research suggests studying lines of research on the personality types that are in favor of orthothanasia, euthanasia or distanasia. It is proposed: To regulate euthanasia to avoid being considered an assisted suicide or being considered a crime. By allowing euthanasia, it helps the terminally ill patient and their family make an informed decision. Applying euthanasia reduces public health spending and family wealth expenditure before the eminent end of the human being in suffering.

Euthanasia, Decision, Human development

Resumen

Objetivo: Conocer valores, conductas, emociones y sentimientos afines a la eutanasia. Identificar posturas conceptuales ante la eutanasia. Metodología: Investigación con enfoque cualitativo- cuantitativo. La población consta de 300 estudiantes universitarios de diferentes áreas del saber. Criterios de inclusión: estudiantes, mayores de 18 años, que sepan leer y escribir y deseen participar en el estudio. El instrumento de recolección de datos que se implementa para la investigación consta de 118 variables operacionales. La contribución de esta investigación sugiere estudiar líneas de investigación sobre los tipos de personalidad que están a favor de la ortotanasia, eutanasia o distanasia. Se propone: Reglamentar la eutanasia para evitar ser considerada un suicidio asistido o ser considerada como un delito. Al permitirse la eutanasia, favorece tomar una decisión informada al paciente en fase terminal y a su familia. Aplicar la eutanasia, disminuye el gasto de salud pública y el dispendio patrimonial familiar ante el final eminente del ser humano en sufrimiento.

Eutanasia, Decisión, Desarrollo humano

Citation: RAMOS-JAUBERT, Rocío Isabel, CEPEDA-GONZÁLEZ, María Cristina, MUÑOZ-LÓPEZ, Temístocles and RAMÍREZ-CHÁVEZ, Jorge. Euthanasia: decided and informed end in human development. ECORFAN Journal-Republic of El Salvador. 2021. 7-13:1-11.

* Correspondence to Author (Email: rocio.ramos.jaubert@uadec.edu.mx)
† Researcher contributing first author.

Article ECORFAN Journal-Republic of El Salvador
December 2021, Vol.7 No.13 1-11

Introduction

Since ancient times and in the twentieth century, in the forties, until today, euthanasia has been centered as a cornerstone in the decision as the good to die, which is what euthanasia means; It has been a controversial issue nowadays, especially in public policy and that is the subject of debate when considering that the human being is incapable of deciding on the life itself or on another human being, on the one hand; and, on the other hand, they are enacted in favor of life itself, contrary to suffering.

The word euthanasia comes from the Latin euthanasia / eut^{h}anásıa /, and this from the Greek εὐθανασία / eu̯θaɳasía /, composed of the prefix εὖ / eu̯ / which means well, normality; the word θἀνατος / θanatos / ‘death’ and the noun suffix ~ σίᾱ / ~ sía: /. The morpheme εὖ / eu̯ / good, normality, linked to the Indo-European root * wesu ~, good, present in neologisms such as: aneuploid, eubacteria, eucalyptus, eucarides, eukaryote, euphony, and others. (Etymologies of Chile.net, 1998-2001; Pokorny, 2011; Pastor de Arozena & Roberts, 2013).

The lexeme θἀνατος / θánatos / means death; linked to the Indo-European root * d^{h} (u) enh$_2$- death. Other words with thanasia include: thanatology, thanatopraxia, thanatonaut and thanatoid (a), atanasia, cacotanasia, orthotanasia, distanasia. (Etymologies of Chile.net, 1998-2001; Pokorny, 2011; Pastor de Arozena & Roberts, 2013).

The noun grameme ~ σίᾱ / ~ siā /; comes from the Greek, which in turn combines two feminine suffixes: ~ si (s) / ~ s (o) from the Greeks ~ σις / ~ σι ~ / ~ σο ~ / ~ σ ~ which means 'action', common in the scientific Greek language; and the suffix ~ íā from the Greek ~ ία meaning quality.

From the etymological perspective, euthanasia means: peaceful death, death without physical suffering, favored by others; in ancient Greece it meant honorable death and a painless, gentle death. (Etymologies of Chile.net, 1998-2001; Pokorny, 2011; Pastor de Arozena & Roberts, 2013).

In today's world, euthanasia has been legalized in seven countries, the Netherlands, Belgium, Luxembourg, Spain, New Zealand, Canada and Colombia. In all cases, euthanasia is authorized only for people suffering from an incurable, serious, chronic and incapacitating disease that causes intolerable suffering. (WHO, 2021; Macías, Marcos del Cano and de la Torre Díaz, 2019, Bernal-Carcelén, 2020; Velásquez Portilla *et al.*, 2021, Albert, 2020; Szlajen, 2021).

The Netherlands is the first country to set the precedent in 2002; later, Belgium 2002 and Luxembourg, in March 2009, includes assisted death (providing the drugs so that the patient determines the moment to end his life), being applied to patients with unbearable, irreversible pain, and the patient is obliged to request it your doctor together with another medical opinion, before deciding (WHO, 2021; Macías, Marcos del Cano y de la Torre Díaz, 2019, Velásquez Portilla *et al.*, 2021; Bernal-Carcelén, 2020; Szlajen, 2021).

In the case of Belgium it is the same, requiring the approval of two doctors, it applies to any age requiring parental permission since 2014 in the case of underage patients, and it applies in cases of insurmountable mental suffering; New Zealand approves the endorsement in 2020 entering into force on November 6, 2021, allowing the doctor to administer a drug that grants six months of maximum life and be a victim of a terminal illness and that the patient voluntarily and consciously requests it They must be over 18 years of age and have the approval of two doctors. Spain, in the euthanasia law where it recognizes the right of terminally ill patients to a dignified death, decriminalizes medical aid to provide medicine to the patient, doctors have the right to conscientious objection and there is a commission that controls each patient, thus Spain becomes the first country with a Catholic tradition to approve this legislation (WHO, 2021; Macías, Marcos del Cano y de la Torre Díaz, 2019; Albert, 2020; Velásquez Portilla et al, 2021; Bernal-Carcelén, 2020;).

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

December 2021, Vol.7 No.13 1-11

In Canada, the so-called medical assistance to die approved in June 2016, has strict requirements such as: requesting the procedure 10 days before proceeding with it, having two independent witnesses and having the approval of two doctors who corroborate that the patient does not He is cured and is in an advanced stage of suffering. (WHO, 2021; Macías, Marcos del Cano and de la Torre Díaz, 2019; Velásquez Portilla et al, 2021; Bernal-Carcelén, 2020).

In the case of Colombia, in 1997 the Constitutional Court decriminalized mercy killing, although for years there was no regulation that would protect it, until 2014 the right to a dignified death was regulated; Doctors have freedom of conscience not to agree to euthanasia unless it is within their personal beliefs. With the exception of Colombia, in the rest of Latin America there are various legal and technical gaps, since direct euthanasia is prohibited in Latin American countries, although recently in Peru (Surco Ibarra, 2021; Aguilar Pacheco, 2021; Ayamamani Ruiz, 2021), the court ruling in favor of a dignified death of a person with a degenerative disease; in 2012 both Argentina and Chile approved the power of the patient to reject treatments that artificially prolong life in patients with irreversible and terminal symptoms; In 2020 in Chile the law for dignified death and palliative care is approved where the patient can request medical assistance to die, under certain conditions depending on the case (WHO, 2021; Macías, Marcos del Cano and de la Torre Díaz, 2019; Velásquez Portilla et al, 202; Bernal-Carcelén, 2020, Albert, 2020; Surco Ibarra, 2021; Aguilar Pacheco, 2021; Ayamamani Ruiz, 2021).

In Uruguay, they have the Advance Will or Good Death Law, which regulates the freedom of the person to refuse palliative care included in a treatment (WHO, 2021; Macías, Marcos del Cano y de la Torre Díaz, 2019; Bernal-Carcelén, 2020; Velásquez Portilla et al, 2021).

In Mexico, terminally ill patients are allowed to reject palliative treatments, in the states of Mexico City, Michoacán and Aguascalientes, various bills to authorize euthanasia have been rejected in Congress (WHO, 2021; Macías, Marcos del Cano and de la Torre Díaz, 2019; Bernal-Carcelén, 2020; Velásquez Portilla et al, 2021).

In various parts of the world, active or direct euthanasia is prohibited, although there are regulations that allow compassionate death, called assisted suicide, this practice is legal in Switzerland, Germany, in Victoria in Australia, and in the United States in the states of : Hawaii, Colorado, Vermont, California, Oregon, Maine, New Jersey, Washington and the District of Columbia (WHO, 2021; Macías, Marcos del Cano and de la Torre Díaz, 2019; Velásquez Portilla et al, 2021; Bernal-Carcelén , 2020).

Indirect or passive euthanasia is allowed in other countries, in which medical care is suspended, as well as palliative treatments, leaving the patient to die when there is no hope. There are no data from Africa (WHO, 2021; Macías, Marcos del Cano and de la Torre Díaz, 2019; Bernal-Carcelén, 2020; Velásquez Portilla et al, 2021).

Macías, Marcos del Cano and de la Torre Díaz (2019), for these authors, euthanasia and assisted suicide are not an annex issue that can be separated from other human aspects such as aging, the coexistence of death, suffering, pain, the inability to issue socio-health resources, dementia, self-care and care, autonomy, protection and support for vulnerable populations, dependency, and human freedom, among other issues that concern humans. Euthanasia is a human matter. However, the book is complemented by a series of studies that shows the different legal initiatives in neighboring countries such as Germany, France and Italy, countries that chose to reject both euthanasia and assisted suicide. It shows a partial vision, without the humanistic and empathic analysis required in terminally ill cases.

Velásquez Portilla & cols (2021), conclude on the existence of a high degree of ignorance of the definition of euthanasia proposed by the World Health Organization (WHO), despite its acceptance by the studied population; The results indicate the need to open spaces for information and dialogue on the subject.

Bernal-Carcelén (2020), argues that clinical and social support for the regulation of euthanasia has been an important element, which was analyzed by political parties in the last two decades, which favored that they will change their positions, that created a window of opportunity for regulation.

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

Szlajen (2021), concludes on a conceptual structure, cases and foundation of the Jewish regulatory and normative legal framework regarding the prohibition, duty or permission to kill oneself or through third parties; applied to the moral and legal fields in the current pressing discussions of bioethics.

The study is relevant for recognizing the dignity of the patient, turning him into an active person, with the ability to decide in advance about the medical treatments he is willing to receive, in the event of being prevented from expressing his will. It is necessary to enrich oneself from the experiences of other countries to complete its regulation with an international protocol resulting from the resolutions determined by the World Health Organization in the World Assembly.

Díaz (2021), presents how the terminal patient and the average medical environment in which he operates, includes representatives of society, ecclesiastical, judicial and legislative, to represent that dignified death goes further

Of what belongs to the individual, rather, it is a “social demand” that will be analyzed in an inclusive, interdisciplinary and systematic way.

Euthanasia is a phenomenon that currently has importance due to the presence of degenerative diseases, chronic diseases, different types of cancer, and heart and brain diseases that, both the patient and his family, present a duality due to personal beliefs , family, religious. and social environment that surrounds them, and although there are places and conditions to perform euthanasia, there are no exact or precise data, so the objectives of this study are:

Know values, behaviors, emotions and feelings related to euthanasia.

Identify conceptual positions before euthanasia.

Methodology to be developed

Research with a qualitative- quantitative approach.

The population is 300 university students from different areas of knowledge, plus 40 pilot surveys.

Directed-stratified: Taking the most representative cases of young people, from each of the work areas.

Design

For the investigation maneuver: An observational study will be carried out.

For the capture of information: Survey type with self-administered technique.

By measuring the phenomenon in time: Transversal.

By the direction of the analysis:

Descriptive and exploratory.

Inclusion criteria

- University Students
- Over 18 years.
- That they know how to read and write.
- That they agree to be part of the study.

Exclusion criteria

- Don't be students.
- Under 18 years of age.
- That they cannot read and / or write.
- That they do not accept to be part of the study.

Elimination criteria

Questionnaires that are not complete.

The data collection instrument that is implemented for the research consists of three sections.

The first collects basic identification information for each of the study subjects: sex, age, religion and marital status.

ECORFAN® All rights reserved.

The second part of the data collection tool explores the meaning of euthanasia, analyzing different relationships in 114 questions, distributed in five questions, they are:

What expressions mean eutanasia? acceleration, pain, omission, death, protection, suicide, avoid, insensitivity, homicide, hopeless, in favor, suffering, terminal, against, assisted, intention, incurable.

If a family member suffers from a terminal illness, what action do you decide? Euthanasia, good death, protection, eliminate pain, shortened, omission, distanasia, keep life, survival, prolong tratment, disproportionate measures, bad practice, assisted suicide, therapeutic support, viability, avoid suffering, personal decisión, attendance, orthothanasia, natural death, palliative care, professional responsibility, basic care, commitment to life.

Euthanasia must be? Legal, regulated, straight, lawful, decisión, crime, violation, transgression, illicit, provision, homicide, attempt, murder, crime, personal, approved, permitted, reasonable, ratified, family, violation, breach, non-observance, brokenness.

Who should legislate on eutanasia? Doctors, legislators, lawyers, experts, journalists, patients, politicians, government, historians, scientists, relatives, associations, churches, philosophers, communicators, nurses, civil society, teachers, psychologists, workers, social work, students, sociologists, criminals, technical.

You are a person? Affectionate, protective, cuts, kind, respectful, kind, educated, generous, honest, compassionate, attentive, humble, sincere, pious, cruel, loyal, responsable, human, grateful, prudent, insensitive, considered, friendly, tolerant.

The third part, thanks for the support.

It consists of 118 items that show different personal qualifications on an ordinal scale of the centesimal type, with 0 being "nothing or never" and 100 "the maximum level of experience", each answer is independent, there is no sum of the values between them.

The application of the data collection tool will be through the self-administered technique, which will allow the data to be captured from the respondent's perspective, evoking their concepts, memories and experiences on the subject.

Results

The results are analyzed from the exploratory factor analysis, type R multiple squared with maximum normalized variation to find standards among the diverse responses of the subjects that allow to see the phenomenon of study from other perspectives, with an $r \geq \pm .19$, $p \leq .05$ and $n \geq 300$.

31 factors were found that explain 82.241% of the total variance explained of the phenomenon from the study variables.

Factor 1 called Reasonable Euthanasia shows the current paradigm, since euthanasia is reasoned when a relative suffers a terminal illness, it becomes a personal decision and a right; It is conceived as protection rather than an omission to the evicted person with an incurable disease, so that if a family member suffers from a terminal illness, they have the viability of avoiding suffering by protecting them from the palliative care offered by professional responsibility; all together makes the person a protective and caring being, who with courtesy by being polite and kind, becomes tolerant, honest, generous and compassionate, the degree of prudence is such that he is responsible and considerate for what that respect, friendly and loving transforms him into a humble and pious being being grateful, attentive and sincere; considering that legislators, doctors and psychologists are the ones who should participate in the opinion on euthanasia, but criminals do not participate. From this it is inferred that the current position before euthanasia is that by positioning themselves in the place of the patient, a series of emotions and feelings arise that flourish the best of themselves in order to avoid the suffering of their family.

Factor 2 called, insensitive euthanasia shows how, regardless of age, euthanasia does not mean protection is not a favor nor is it assisted, euthanasia means that one is against avoiding homicide and suicide through insensitivity.

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

On the other hand, when a relative suffers from a terminal illness, euthanasia should not be applied, on the contrary, life should be prolonged; as far as the person from this perspective is considered a cruel person, euthanasia should not be considered legal or be a lawful right that has been regulated, much less be part of a decision, nor should it be allowed, nor should it be approved or considered reasonable, so euthanasia is a crime and a transgression that violates the provision just as homicide is an attempted murder; therefore, it is a completely illicit crime, being a non-observance that leads to the breach and violation of a violation. The only ones who can have an opinion on euthanasia are the communicators and the church. From this it follows that an underlying retrograde position shows the cruel personality of a pro-life position where everything is considered the transgression of a crime.

Factor 3 called Assisted Suicide; Euthanasia from this perspective shows an ambivalence where people are in favor of euthanasia, which means that they are assisted, so if a family member suffers from a terminal illness it is due to malpractice, these people tend to be kind; Although there is no definition on what euthanasia should be if they consider that a large part of the population can have an opinion on euthanasia such as politicians, journalists, government, scientists and historians as well as associations such as churches, civil society, philosophers, communicators, not forgetting teachers including social workers and sociologists, students, technicians, workers and criminals. From this it follows that a caring person decides for euthanasia as an assisted favor that concerns a large part of the population to establish it.

Factor 4 called Commitment to life, means that euthanasia is pain, so if a family member suffers from a terminal illness, he or she must maintain life by prolonging survival, even with disproportionate measures until natural death arrives as part of a commitment. With life, people tend to be friendly from this perspective, considering those who cannot have an opinion on euthanasia are the students. From this it follows that euthanasia is not an option and it is necessary to reach the end as a life commitment where pain is part of this process.

Factor 5 called Euthanasia as homicide, from this perspective, euthanasia is to avoid the pain against homicide, if a relative suffers from a terminal illness, they must be kept alive and protected so that they have a good death by having a natural death (orthothanasia) Through a professional responsibility with basic and palliative care that commits to life, the personality that predominates in this perspective is a loyal and protective person, who must have an opinion on euthanasia are social workers, sociologists and philosophers but not criminals . It is inferred that a protective relative is loyal and has a commitment to life, being protective of the same person until the end of his life arrives.

Factor 6 called Euthanasia as protection is considered an omission when the family member suffers a terminal illness, the omission to shorten life would be a disproportionate measure that starts from malpractice assisting suicide as a viable way to lead to orthothanasia or natural death , the personality that stands out from this perspective are people who consider themselves humble but at the same time are insensitive, who should have an opinion on euthanasia are criminals and technicians and the church should not be considered in this sense. From this perspective it is inferred that insensitive and humble people participate in assisted suicide as a protective measure.

Factor 7 called Personal Decision, where age and gender means the acceleration that with pain through being a terminally ill patient ends with the suffering of a terminal illness through professional assistance, but always directed without assistance reaching the natural death (orthothanasia); Those who should have an opinion on euthanasia are civil society, the workers, but they are not considered criminals. Therefore, euthanasia is a personal decision that corresponds to the terminal patient to end the suffering.

Factor 8 called In favor of euthanasia indicates that it is a protective factor but does not mean that it is against to insensibly avoid homicide, so if a family member suffers from a terminal illness, euthanasia is an option as a good death through measures disproportionate to assisted suicide to lead to orthothanasia or natural death.

ECORFAN® All rights reserved.

These people, even though they are cruel, tend to be grateful and loyal to whoever will apply, euthanasia must be regulated as a lawful and legal right as a personal decision allowed and reasonably approved and ratified by a family member who does not allow it to be broken, and is not a rape, those who should have an opinion on euthanasia are patients, doctors and family members. From this it follows that euthanasia is a protective factor that must be legislated and protected as a personal decision and ratified by a family member.

Factor 9 called Suffering, indicates that euthanasia should protect suffering and insensitivity should not be avoided or considered to be against as homicide, from this perspective people are educated and protective being friendly, euthanasia should not be considered as something staff and who should have an opinion on euthanasia is the church. From this factor it follows that suffering must be protected until the end.

Factor 10 called Assisted Euthanasia implies that regardless of being a man or a woman, protection is in favor of an euthanized person, so euthanasia must be assisted, if a family member suffers from a terminal illness, they should not be kept alive and it will be necessary to apply euthanasia to avoid suffering through a personal decision that leads to the assistance of orthothanasia, as a commitment to life; those who should not have an opinion on euthanasia are journalists and scientists, philosophers, students, sociologists and technicians must be taken into account. From this it follows that euthanasia is a personal decision that must be assisted to avoid suffering.

Factor 11 called Acceleration is in favor of protection as an acceleration of pain. If a family member suffers from a terminal illness, they must be assisted to have a natural death. These people tend to consider themselves honest, but not prudent; therefore, criminals are the only ones who can legislate from this perspective and should not have an opinion on euthanasia. From this it follows that accelerating the terminal process is due to a protective factor over pain.

Factor 12 called Euthanasia as intention refers that regardless of being a man or a woman, the intention about an incurable disease is assisted through disproportionate measures that are viable, a person from this perspective is considered pious, so euthanasia should be considered as a lawful and personal procedure, who should have an opinion on euthanasia are the students. From this it follows that, the intention with disproportionate but viable measures will be a lawful procedure, participation in students is like an exercise in an conflict.

Factor 13 called Euthanasia as pain, is a pain where the person who is in favor presents a protective and prudent personality but is not insensitive, who have opinions are doctors, legislators, lawyers, experts, patients, journalists, politicians, government and scientists. From this perspective it is inferred that a protective person is prudent but not insensitive to the pain that a person suffers.

Factor 14 called Alternative, euthanasia means avoiding suicide or homicide especially if a family member suffers from a terminal illness, avoiding suffering requires assistance through assisted suicide, so euthanasia should not be ratified as they are, those who can give their opinion in relation to euthanasia are the technicians, but not the teachers or civil society. From this it follows that euthanasia is an alternative to a terminal illness.

Factor 15, called Euthanized, implies that euthanasia can be used at the end of a terminal illness or an evicted patient, this implies a personality that is neither protective nor tolerant, considering euthanasia as a legal position that must be legislated by experts. From this it follows that those who are not tolerant or protective will opt for euthanasia in the event of a terminal illness of a terminally ill patient.

Factor 16 called Crime, implies that a person who is prudent and considerate and at the same time tends to be friendly, but is insensitive, proceeds to accelerate euthanasia, when this occurs, euthanasia is considered a crime as a non-observance of breach towards violation of non-compliance, so the opinion of patients should not be considered. From this it follows that euthanasia can be a crime as the terms in which it must occur are accelerated.

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

Factor 17 called Viability considers euthanasia when a family member suffers from a terminal illness as a viable therapeutic support to avoid suffering, knowing that there is no natural death; People from this perspective tend to be sincere and protective as well as courteous, but they are not considered friendly or tolerant. Those who should have an opinion on euthanasia from this perspective are doctors and psychologists, but not criminals. From this it follows that, in the event of a terminal illness, euthanasia is feasible to avoid the suffering of family members.

Factor 18 called Incurable, implies that euthanasia can be applied when an incurable disease occurs, being viable when a family member suffers from it, people from this perspective tend to be educated, but not necessarily responsible, so they consider that they are the associations, civil society including criminals who can have an opinion on euthanasia. From this it follows that euthanasia will be applied to an incurable disease.

Factor 19 called Assistance, implies that a responsible person must be able to make a personal decision through assisted euthanasia, where doctors, patients, relatives, associations, churches, nurses, civil society, teachers, psychologists, social workers and sociologists they can give their opinion on euthanasia. From this it follows that euthanasia is a personal and assisted decision.

Factor 20 called Eliminate pain, implies that if a family member suffers from a terminal illness, their suffering should be avoided through the elimination of pain possible with natural death, from this perspective people tend to be respectful and honest so they are loyal and those responsible consider that patients should not comment on euthanasia matters. From this it follows that avoiding suffering and eliminating pain is an option that must be lived until natural death.

Factor 21 called Euthanasia as homicide, implies that euthanasia is a homicide through a death that has suffered pain, accelerating its completion, so people from this perspective tend to be kind, friendly and tolerant therefore it is doctors, patients and family members who must give their opinion from this perspective, not including scientists. From this it follows that, by accelerating death from a terminal illness and being able to eliminate suffering and pain, euthanasia is considered a homicide.

Factor 22 called Distanasia, implies that euthanasia will be an omission because the person must have a commitment to life until his natural death through the viability of disproportionate measures that keep him alive beyond what is necessary (distanasia), from this perspective a person tends to be kind and those who should not comment on euthanasia are scientists. From this it follows that a patient in the terminal phase must stay alive beyond the necessary limits as a life commitment.

In Factor 23 called Euthanasia as a legal but unregulated matter, it implies that it should be considered as an assisted suicide based on malpractice against an accepted euthanasia, people from this perspective tend to be humble and who should have an opinion are journalists and even criminals, but politicians are not considered. From this it follows that euthanasia can be legalized, although not regulated, what is considered as assisted suicide.

Factor 24 called Insensitivity, implies that if a family member suffers from a terminal illness, they must wait without avoiding suffering, applying distanasia that is not tolerant with cruelty and insensitivity, in order to give scientists their opinion on euthanasia, not including to relatives, government, social or technical workers. From this it follows that distanasia helps to know the limits of a disease with cruelty, probably in order to know if it is curable.

In Factor 25 called Euthanasia as omission, it implies that as one is older, the acceleration of euthanasia as homicide in the evicted leads to the omission of pain, so people from this perspective are pious and it corresponds to the church give its opinion on euthanasia. From this it follows that, as one gets older, it is necessary to accelerate euthanasia, especially in euthanized people.

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

December 2021, Vol.7 No.13 1-11

Factor 26 called In favor of euthanasia, implies that euthanasia is applied in the case of those people who consider themselves to be honest, humble, sincere and loyal without being considered homicide or being against it. From this it follows that euthanasia is a way of favoring the end of life for those people who consider that there is nothing more to do to sustain their quality of life.

Factor 27 called Avoid euthanasia, implies that it is to protect the family member who tries to commit it from a crime, since it is not viable nor is it an assisted suicide, people from this perspective are not loyal or friendly, who should not comment on euthanasia are the patients. From this it follows that euthanasia is considered a crime for which it must protect the patient from committing it.

Factor 28 called Euthanasia as suffering implies that the omission of suffering itself is insensibly avoided, since the family member who suffers from a terminal illness due to malpractice suffers, a person from this perspective is considered friendly, but is not respectful or attentive, It is considered that criminals can have an opinion on euthanasia but not historians. From this it follows that euthanasia is a way to avoid insensitivity by omitting suffering.

Factor 29 called Disproportionate measures implies that one is not in favor of euthanasia although there is an acceleration of the euthanized patient, so the disproportionate measures must provide assistance, without reaching natural death, being a commitment to life from this perspective, People tend to be affectionate, protective, respectful and courteous, but they are not loyal or grateful for what, who should have an opinion on euthanasia, are civil society and journalists. From this it is inferred that, despite not being in favor of euthanasia, neither does natural death occur where the commitment to life tends to provide disproportionate measures for their survival.

Factor 30, called Inhuman, implies that from this perspective there is no integration with euthanasia, it implies that the personality of inhuman is not part of the areas that must legislate euthanasia as the government, from this it follows that the government must present a impartial stance towards euthanasia.

Factor 31 called Keep alive indicates that regardless of the pain involved, euthanasia must be kept alive through the assistance provided to the family member; On the other hand, from this perspective, people are compassionate beings, but not responsible for what euthanasia should be a personal disposition, those who must give their opinion on euthanasia from this perspective are the scientists. It is inferred that a person must stay alive regardless of pain; however, the arrangement must be personal and unique to the patient.

Gratitude

The financial support provided by the Dyslexia Neuropsychology Center is appreciated.

Conclusions

The conclusions of the investigation are presented:

The current position regarding euthanasia is that by positioning oneself in the place of the patient, a series of emotions and feelings arise that flourish the best of themselves in order to avoid the suffering of their family.

It underlies a retrograde position that shows the cruel personality of a pro-life position where everything is considered the transgression of a crime.

A caring person decides for euthanasia as an assisted favor that concerns a large part of the population to establish it.

Euthanasia is not an option, being necessary to reach the end as a life commitment where pain is part of this process.

A protective family member is loyal and committed to life, being protective of the same person until the end of his life arrives.

Callous and humble people participate in assisted suicide as a protective measure.

Euthanasia is a personal decision that corresponds to the terminal patient to end the suffering.

Euthanasia is a protection factor that must be legislated and protected as a personal decision and ratified by a family member.

ECORFAN® All rights reserved.

December 2021, Vol.7 No.13 1-11

Suffering must be protected until the end is reached.

Euthanasia is a personal decision that must be assisted to avoid suffering.

Accelerating the terminal process is due to a protective factor over pain.

The intention with disproportionate but viable measures will be a lawful procedure, the participation in the students is like an exercise in an ethical dilemma.

A protective person is prudent but not insensitive to the pain that a person suffers.

Euthanasia is an alternative to a terminal illness.

Who is not tolerant or protective will opt for euthanasia before a terminal illness of an evicted relative.

Euthanasia can be a crime as the terms in which it must occur are accelerated.

Faced with a terminal illness, euthanasia is feasible to avoid the suffering of family members.

Euthanasia will be applied to an incurable disease.

Euthanasia is a personal and assisted decision

Avoiding suffering and eliminating pain is an option that must be lived until natural death.

By accelerating death from a terminal illness and being able to eliminate suffering and pain, euthanasia is considered a homicide.

A terminally ill patient will have to stay alive beyond the limits necessary as a life commitment.

Euthanasia can be legalized, although not regulated what is considered as an assisted suicide.

Distantnasia helps to know the limits of a disease with cruelty, probably in order to know if it is curable.

As one gets older, it is necessary to accelerate euthanasia, especially in euthanized people.

Euthanasia is a way of promoting the end of life for those who consider that there is nothing more to do to sustain their quality of life.

Euthanasia is considered a crime for which you must protect the patient from committing it.

Euthanasia is a way to avoid insensitivity by omitting suffering.

Despite not being in favor of euthanasia, neither does natural death occur where the commitment to life tends to provide disproportionate measures for their survival.

The government must present an impartial stance towards euthanasia, but it is not inhumane.

A person must stay alive regardless of pain; however, the arrangement must be personal and unique to the patient.

According to the objectives of the research, it was identified to know different values, behaviors, emotions and feelings related or not to euthanasia. Likewise, it is possible to identify conceptual positions before euthanasia, as shown in the previous paragraphs.

It is suggested to study the following lines of research:

The personality types that are in favor or not of orthothanasia, euthanasia or distanasia.

Regulate in-utero euthanasia for life-threatening congenital malformations.

It is proposed:

Regulate euthanasia to avoid being considered assisted suicide or considered a crime.

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

By allowing euthanasia, it favors making a personal and informed decision for the adult patient in the terminal phase and extreme suffering, and support from the family, as well as direct relatives in the case of minors, together with the support of government and civil authorities, social and religious.

Deciding on euthanasia reduces public health spending and family wealth spending before the eminent end of the human being in suffering.

References

Aguilar Pacheco, D. W. (2021). Eutanasia y la regulación del derecho a la voluntad de muerte digna en el sistema jurídico peruano, Lima 2020.

Albert, M. (2020). Eutanasia: de delito a derecho. *Bajo palabra. Revista de filosofía*, (24), 243-268.

Ayamamani Ruiz, C. X. (2021). Ausencia de marco legal que ampare el principio de autonomía de las personas con enfermedades terminales prolongando un deterioro en la calidad de vida.

Bernal-Carcelén, I. (2020). La eutanasia, tendencias y opiniones en España. *Revista Española de Sanidad Penitenciaria*, *22*(3), 112-115.

Etimologìas de Chile (1998-2001). En http://www.dechile.net/

Díaz, A. O. (2021). Eutanasia: De delito a derecho humano fundamental. Ediciones de la U.

Macías, E. A. (2020). MARCOS DEL CANO, Ana María/DE LA TORRE DÍAZ, Francisco Javier (Editores): Y de nuevo la eutanasia. Una mirada nacional e internacional, Colección: Bioética para pensar, Madrid, Editorial Dykinson, 2019. *Anuario de filosofía del derecho*, (36).

Organización Mundial de la Salud. 2021. En: www.oms.org

Pastor de Arozena, B. & Roberts, E. (2013). Diccionario etimológico de la lengua española. España: Alianza editorial.

Pokorny, J. (2011). Diccionario etimológico indoeuropeo. Bern: Francke.

Szlajen, F. (2021). Eutanasia en la bioética judía: considerandos, resoluciones y aportes. Vida y Ética, 21(2), 75-137.

Surco Ibarra, Z. (2021). Fundamentos para la despenalización de la eutanasia en el Perú-2020.

Velásquez Portilla M, Espejo Saavedra A, Navarrete Ospina F, Robledo Gómez S, Salazar Jaramillo M, Baquero García P, Buesaquillo C, Arango L, Burbano L, Andrade L, Calvache JA, De Vries E. 2021. Conocimientos acerca de la eutanasia en estudiantes universitarios en dos instituciones de educación superior en Colombia. Univ. Med.;62(1). https://doi.org/10.11144/Javeriana.umed 62-1.euta.

ECORFAN® All rights reserved.

Article **ECORFAN Journal-Republic of El Salvador**
December 2021, Vol.7 No.13 12-19

Intimate partner violence in women attending an urban health center

Violencia de pareja en mujeres que asisten a un centro de salud urbano

MORENO-MONCLUB, Luisa Xiomara†, CORTAZA-RAMÍREZ, Leticia*, HERNÁNDEZ-RAMÍREZ, Zayra Vanessa and CRUZ-AVALOS, Geraldine

Universidad Veracruzana, School of Nursing Campus Minatitlán, Mexico.

ID 1st Author: *Luisa, Xiomara, Moreno-Monclub* / **ORC ID:** 0000-0003-0154-0773

ID 1st Co-author: *Leticia, Cortaza-Ramírez* / **ORC ID:** 0000-0002-0592-7695, Researcher ID Thomson: AAL-4015-2020, CVU CONACYT ID: 252470

ID 2nd Co-author: *Zayra, Vanessa, Hernández-Ramírez* / **ORC ID:** 0000-0002-9302-8584

ID 3rd Co-author: *Geraldine, Cruz-Ávalos* / **ORC ID:** 0000-0001-6216-6776

DOI: 10.35429/EJRS.2021.13.7.12.19 Received July 20, 2021; Accepted December 30, 2021

Abstract

Descriptive and cross-sectional study, carried out with the objective of identifying the type and level of violence suffered by women attending a consultation at an urban health center in Minatitlán, Veracruz, Mexico. The sample consisted of 275 women; the sampling was simple random probability sampling. A personal data questionnaire and the Questionnaire of Violence Suffered and Exercised by a Partner (CVSEP) were used. The results showed that economic (8.4%) and psychological (6.9%) violence predominated at a high level, 5.8% had suffered physical aggression by their partner and 2.5% reported sexual violence. Psychological and social (9.6%), physical (6.1%), sexual (3.5%) and economic (12.2%) violence prevailed at a high level in women between 37 and 55 years of age. Psychological and social (22.2%), physical (6.7%), sexual (11.1%) and economic (22.2%) violence was higher in women with no schooling. Intimate partner violence has been present in the lives of all the participants in the study.

Woman, Violence, Violence against women

Resumen

Estudio descriptivo y transversal, realizado con el objetivo de identificar el tipo y nivel de violencia sufrida en mujeres que asisten a consulta en un Centro de Salud Urbano de Minatitlán, Veracruz, México. La muestra fueron 275 mujeres, el muestreo fue probabilístico aleatorio simple. Se utilizó una cédula de datos personales y el Cuestionario de Violencia Sufrida y Ejercida de Pareja (CVSEP). Los resultados mostraron que predominó en nivel alto la violencia económica (8.4%) y psicológica (6.9%), 5.8% han sufrido agresiones físicas por su pareja y 2.5% reportan violencia sexual. La violencia psicológica y social (9.6%), física (6.1%), sexual (3.5%) y económica (12.2%) prevaleció en un nivel alto en las mujeres entre 37 y 55 años. La violencia psicológica y social (22.2%), física (6.7%), sexual (11.1%) y económica (22.2%) fue más elevada en las mujeres sin escolaridad. La violencia ejercida por su pareja sentimental está presente en la vida de todas las participantes de la investigación.

Mujer, Violencia, Violencia contra la mujer

Citation: MORENO-MONCLUB, Luisa Xiomara, CORTAZA-RAMÍREZ, Leticia, HERNÁNDEZ-RAMÍREZ, Zayra Vanessa and CRUZ-AVALOS, Geraldine. Intimate partner violence in women attending an urban health center. ECORFAN Journal-Republic of El Salvador. 2021. 7-13:12-19.

* Correspondence to Author (Email: leticortaza@hotmail.com)
† Researcher contributing first author.

December 2021, Vol.7 No.13 12-19

Introduction

Throughout history, violence has manifested itself as a sociocultural problem, which makes women vulnerable to this type of problem. Data from the World Health Organization [WHO] 2016, indicate that violence against women is especially exercised by their partners, which constitutes a serious public health problem and a violation of women's human rights.

This same organization reveals that one third of the world's population of women have suffered some type of physical and/or sexual violence by their partner or third parties at some point in their lives; it points out, that the prevalence ranges from 23.2% in high-income countries and 24. 6% in countries of the Western Pacific Region to 37% in the Eastern Mediterranean Region and 37.7% in the Southeast Asia Region; similarly, it notes that sexual violence by a partner or by someone outside the partner or both in women aged 15 years or older, has the highest prevalence rate the African continent (45.6%) (WHO, 2016).

In Latin America, a study conducted in Brazil indicated 13 homicides per day on average, ranking fifth among the countries that kill the most women in the world with a rate of 4.8 (homicide rate per 100 thousand women) (Jacobo, 2015).

In Mexico, data from the National Institute of Statistics and Geography (INEGI, 2015) indicate that in 2011, 63 out of every 100 women aged 15 and over reported having suffered some incident of violence, either by their partner or any other person; the age where they are most exposed to being assaulted is from 30 to 39 years old, they mention that 68% have faced at least one episode of violence or abuse and highlights that partner violence is higher in women who married or united before the age of 18 (52. 9%), then among those who did so at age 25 or older (43.4%).

In the state of Veracruz Mexico, this same institute highlighted that in 2017; 1.9 out of 3.1 million women over 15 years of age have suffered some type of violence derived throughout their lives (INEGI, 2016).

The WHO in 2016 refers that intimate partner violence is that behavior of the partner or ex-partner that causes physical, sexual or psychological harm, including sexual coercion, psychological abuse and controlling behaviors.

In Mexico, INEGI in 2016 mentions that intimate partner violence is the intentional abuse of power or omission against women that is executed to dominate, subdue, control or assault in a physical, verbal, psychological, patrimonial, economic and sexual manner in the couple's relationship. The aggressor has or had a partner relationship with the assaulted individual.

The Statistical Report of the State Data Bank for the Instituto Veracruzano de las Mujeres (2016), defines physical violence as harm inflicted by means of physical force, weapon or object, which injures the victim's body either internally or externally. It states that economic violence is the act or omission of the aggressor that has a negative impact on the economic survival of the victim, expressed as a monetary limitation, a lower salary for the same work, non-recognition of paternity or non-compliance with the economic obligations that a father must fulfill with his children. It mentions that psychological violence includes damage to the victim's psychological integrity and includes humiliation, intimidation, negligence, abandonment, infidelity, jealousy, insults, denigration, among other statements that threaten the emotional health of the victim.

Violence against women is cyclical, with moments of calm and affection, up to life-threatening situations. This dynamic shows that there is a bond of emotional dependence and possession that is difficult to break, both for the aggressor and the victim (Mujeres sin Violencia, 2016).

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

December 2021, Vol.7 No.13 12-19

Walker in 1979 describes the circle of violence, which develops in three phases: the first is the tension phase, which is characterized by a gradual escalation of tension in the couple, amplification of conflicts and violent acts. The second phase is the aggression phase; in this phase, physical, psychological and/or sexual violence is triggered. The third phase is that of conciliation, also known as the honeymoon phase, in which after the violent episodes, the aggressor usually asks for forgiveness, is kind and affectionate, and promises that it will not happen again, expressing that he has exploded because of other problems that are always unrelated to him. There are cases where the victim is made to believe that the violence she experienced is caused by her attitude, that she has provoked it. Making the woman believe that the violence she suffered is not important, in which the woman trusts him again, and this is the guideline for the cycle to begin again (Walker, 1979).

The WHO in 2017 reports that the consequences for women's health due to intimate partner violence produce serious health problems at the physical, mental, sexual and reproductive levels in the short and long term; likewise, intimate partner violence during pregnancy increases the likelihood of miscarriage, fetal death and premature birth. At the psychological level, it can lead to depression, post-traumatic stress disorder and other anxiety disorders, insomnia, eating disorders and suicide attempts, so that women who have suffered intimate partner violence are twice as likely to suffer from depression and drinking problems.

A study conducted by the European Union in 2014 indicated that 43% of women have suffered some form of psychological violence by their current or former partner, 7% experienced physical violence and 2% were victims of sexual violence; likewise, they establish a relationship between excessive alcohol consumption and increased violence.

In a study conducted by the WHO in 2013, it was found that there was presence of sexual violence in 80 countries, based on the testimonies of the victims, it was also observed that worldwide one in three women (35%) had been subjected to physical or sexual violence within or outside the marital relationship. Pointing out that the risk factors for intimate partner violence are individual, family, community and social, among the risk factors are a low level of education, harmful use of alcohol, reduced access for women and having many partners.

In Latin America, PAHO in 2014, notes that physical violence prevails in Peru (25.5%), Ecuador and Nicaragua (21.3%), while sexual violence predominates in Haiti (10.1%) and Colombia (6.9%). In all countries, the majority of women who had experienced physical violence also reported suffering emotional abuse, ranging from 61.1% in Colombia to 92.6% in El Salvador.

Similarly, in some countries, the highest levels of spousal violence were found among women of intermediate levels of wealth or education, rather than at the lowest levels. Likewise, the results showed that women who had been assaulted by their husband or partner reported that his use of alcohol or drugs led to violence against them, with the highest frequency in Ecuador (53.4%) and Guatemala (29.8%) (Bott et al., 2014).

Similarly, in Peru, data provided by Dávila's study in 2021, affirms that there is a significant relationship between women's emotional dependence on their partners and the violence they suffer, whether physical, psychological or sexual.

In this regard, in Mexico, the National Survey on the Dynamics of Household Relationships (ENDIREH, 2016) reports that women aged 15 years and older, 66.1% have faced at least one incident of violence at some time in their lives and 43.9% of women have suffered violence by their current or last partner, husband or boyfriend, throughout their relationship.

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

INEGI in 2017, indicates that 66.1% of women have suffered at least one incident of violence throughout their lives, where emotional violence stands out (49%), 41.3% for sexual violence, 34% in physical violence and in economic violence 29%. It mentions that 17.3% of women who are 60 years of age or older experienced some type of violence in the last year; 15.2% was psychological, 6.3% economic and 1.2% physical.

In Veracruz, a study conducted with the purpose of demonstrating the increase in the rates of violence against women and girls during the last years showed 699 cases of psychological violence (34%), 865 women indicated suffering physical violence (47%), 309 expressed being victims of sexual violence (15%) and 108 experienced economic violence (5%) (Manzano, 2017).

INEGI in 2016, conducted a study in the state of Veracruz with the purpose of exposing the prevalence of violence exercised by the current partner in the last 12 months, among married or unmarried women aged 15 years and older, showing that it is 29. 5%, being this percentage lower compared to 2006 with 35.1% and to 2011, which shows 32.1%; in which they with a total of 27% present violence, where 26% suffered emotional violence, 8.7% experienced physical violence and 2% suffered sexual violence.

This shows the problem that intimate partner violence represents for women, so it was decided to conduct this research with the objective of identifying the type of violence suffered by women who attend medical consultation in an Urban Health Center in Minatitlán, Veracruz, Mexico.

Methodology

Descriptive and cross-sectional study, the population was 960 women who attended medical consultation at an Urban Health Center in the city of Minatitlán, Veracruz, Mexico. The sampling method was simple random probability, the final sample consisted of 275 women. Inclusion criteria required that they be married or in union, over 18 years of age.

For the collection of information, a sociodemographic data questionnaire and the Questionnaire of Violence Suffered and Exercised by a Partner (CVSEP) were used to evaluate the violence suffered and exercised in the couple's situation in the aspects of frequency and damage (Moral & Basurto, 2015). The instrument allows the evaluation of psychological and social violence, physical violence, intimidation, aggression and sexual violence, as well as economic violence. It is composed of four scales, two scales evaluate violence suffered from the partner by means of 27 direct items that have a 5-value Likert-type response format. In one scale the 27 items are answered in terms of frequency (from 1 "never" to 5 "always") and in the other scale the same 27 items are answered in terms of harm suffered (from 1 "not at all" to 5 "a lot"). Regarding the content of these 27 items of violence suffered, 8 items are oriented to assess psychological and social violence (items 6, 9, 15, 17, 18, 19, 21 and 22), 7 items to assess physical violence, intimidation and aggression (items 2, 3, 11, 12, 13, 16 and 25), 7 items to evaluate sexual violence (items 1, 4, 5, 7, 8, 14 and 27) and 5 items to evaluate economic violence (items 10, 20, 23, 24 and 26). The total scale showed an internal consistency of .98 Cronbach's Alpha, and the subscale of violence suffered obtained a reliability of .96.

To carry out the study, authorization was obtained from the Ethics and Research Committee of the Faculty of Nursing, as well as from the authorities of the selected Urban Health Center. The instrument was applied in the waiting room of the institution, where the women were approached and invited to participate in the study, the objectives of the research were explained to them in advance and they were given informed consent, and they were told that their participation would be anonymous. The collection time was an average of 10 minutes per participant. Once the participants' collaboration was concluded, they were thanked for their contribution and were given a pamphlet on violence prevention and help numbers in case they needed it. The collection time was four weeks. In terms of ethics, the study complied with articles 13, 16, 20 and 21 of the Mexican General Health Law on Health Research.

ECORFAN® All rights reserved.

December 2021, Vol.7 No.13 12-19

The data collected were analyzed in the Statiscal Package for Social Sciences (SPSS) version 20, where descriptive statistics (frequencies and percentages), measures of central tendency (mean, median) and dispersion (standard deviation and range) were obtained.

Results

The women who participated in the study were between 18 and 73 years of age, with a mean of 38.3 years (SD=12.49), 95.6% indicated having between 1 and 10 children with a mean of 2.4 children (SD=1.52). The 93.5% had schooling, the majority had completed high school (31.3%), however, 6.5% of the participants reported having no schooling, most were married (61.8%), 84.7% were engaged in housework.

Regarding data related to the partner, 100% of the participants reported having a current partner and living with her, most of them considered to have a good relationship with their partner (61.8%); however, 5.1% reported having a bad relationship.

We also inquired about alcohol consumption in the couple, finding that 42.2% of the participants reported consuming alcoholic beverages and 60.7% mentioned that their partner consumed alcohol. This data is relevant because alcohol consumption is considered a risk factor that can generate violence in the couple.

Before starting the application of the scale, two questions were asked, the first on what type of aggression they considered they had experienced with their partners and the second on why they allowed it; the purpose of these questions was to find out if the women were able to identify having suffered some type of violence. The results showed that 27.6% of the participants identified psychological, 12% physical and .4% sexual aggression; in the second question, the majority (18.9%) indicated that they allowed the aggression to happen because they wanted to keep the family together and because of the economic aspect (12%).

Regarding the violence suffered according to the CVSEP scale measurement, Figure 1 shows the type and level of violence suffered by the study participants, where the highest level is obtained by economic violence (8.4%) and psychological violence (6.9%); it should be noted that 5.8% of these women have suffered physical and sexual aggression (2.5%) by their partners, results that show that all the participants have suffered some type of violence during their life as a couple.

When analyzing violence according to age, it was observed that the age range with the highest rates of psychological and social violence (9.6%), physical (6.1%), sexual (3.5%) and economic violence (12.2%14) was the group of women between 37 and 55 years of age (Table 1).

Regarding the level of violence and schooling of the participants, it was found that psychological and social (22.2%), physical (6.7%), sexual (11.1%) and economic (22.2%) violence was higher in women with no schooling and primary schooling; economic violence was also present in women with a high school diploma (9.6%) (Figure 2).

Regarding the level and type of violence according to the occupation of the participants, it was found that women engaged in commercial activities suffered more psychological and social violence (12.5%) as well as economic violence (25%); likewise, women working as employees reported physical (6.5%), sexual (3.2%) and economic (9.7%) violence. In the case of women who work in the home, they report psychological and social violence (6.9%) and economic violence (7.7%), which shows the vulnerability to which women who perform only domestic work in the home and are totally dependent on their partner are exposed (Figure 4).

Graph 5 shows the level of violence suffered and the consumption of alcohol in the partner of the respondents, where a level of psychological and economic violence (16.7%), physical (13.3%) and sexual (8.3%) was observed when the partner consumed alcohol in the last week.

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

December 2021, Vol.7 No.13 12-19

Discussion

A total of 275 women participated in the study, in which the level of violence suffered by their partners was identified. The results show that the type of violence exercised most in the participating women exercised by their partner was economic violence (8.4%), a result that differs with studies conducted by the European Union Agency for Fundamental Rights in 2014; likewise with the research conducted in Latin American and Caribbean countries in 2014 and the study published by INEGI in Mexico in 2016, who indicate in their findings that it was psychological violence that prevailed in the participants of their research with figures ranging from 43%, 92.6% to 26% respectively.

Regarding the types of violence exercised, the findings show that economic violence (8.4%) and psychological violence (6.9%) were the most exercised, followed by physical (5.8%) and sexual violence (2. 5%); behavior very different from that reported by Manzano in 2017 (physical violence 47%, psychological 34%, sexual 15% and economic 5%), as well as the INEGI study in 2017, where they show a high prevalence of Psychological (49%) and sexual (41.3%) violence, followed by physical (34%) and economic (29%) violence.

Regarding the violence suffered according to age, the findings show that it was in the group aged 37 to 55 years where the highest rate of all types of violence studied was presented, both psychological and social, physical, sexual and economic. Similar data to the study by Rodriguez and Esquivel in 2020, who found the highest prevalence of emotional, physical and sexual violence in the 30-49 age group. These same results show that 8.3% of the participants experienced sexual violence in the 18-73 age range, higher than the data found by the European Union Agency for Fundamental Rights (FRA, 2014), which places this violence at 2% in the 18-74 age group.

In relation to the level of schooling, it was found that women with no schooling are those who present the highest level of violence suffered in all types, a finding that agrees with that issued by the WHO 2013, which reveals that one of the risk factors for women to suffer violence is that they have a low level of education.

Regarding occupation, the results reveal that women who work as shopkeepers or employees are those who suffer more from some type of violence, showing high rates of psychological and social, economic, physical and sexual violence, a finding similar to that reported by Rodriguez & Esquivel, 2020, who document that woman who have a paid job have an increased risk of violence.

When investigating the alcohol consumption of the participants' partners, it was found that more than 50% of them are violated when their partner is drunk, a result that differs from the study by Llopis et al., 2014, who demonstrated in their study that men who consume alcohol exercise violence towards their partner in a higher proportion when sober than when they are drunk. However, the finding is similar to the study conducted in Latin America and the Caribbean, the Pan American Health Organization and the Centers for Disease Control and Prevention of the United States (Bott et al., 2014), who show that women who were assaulted by their husband mentioned that his alcohol consumption provoked the violence against them; data that agrees with what was obtained in this research, where violence occurred in greater proportion in women who indicated that their partner consumed alcohol than in those where their partner did not ingest this substance.

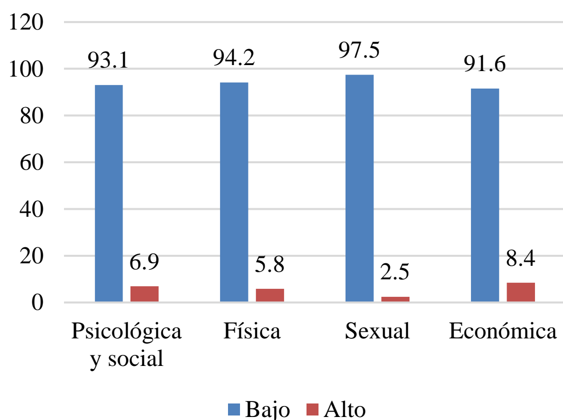
Conclusion

The findings of the study show that all the women who participated in the research have suffered some type of violence in their relationships, whether physical, psychological, sexual or economic; the latter apparently goes unnoticed since in the initial question they did not indicate that they felt violated in this way. It should be noted that in this study the behavior of violence changed, since in studies carried out by different organizations and institutions the results show that psychological violence is the most prevalent, and in this research women are more economically violent. Likewise, it was concluded that the lower the level of schooling of the participants, the greater the probability of suffering violence by the partner.

These results provide a guideline for health professionals to generate interventions in these women, in order to detect any type of aggression towards them at an early stage.

ECORFAN® All rights reserved.

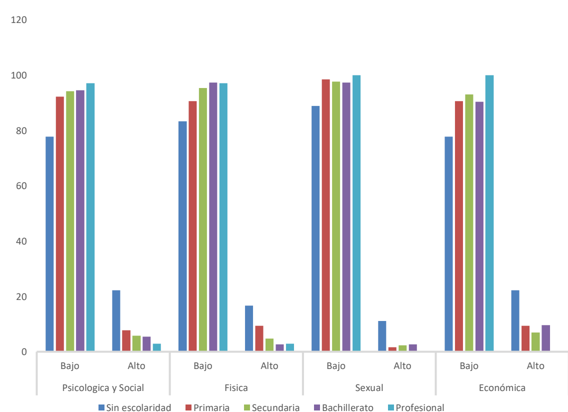
Annexes



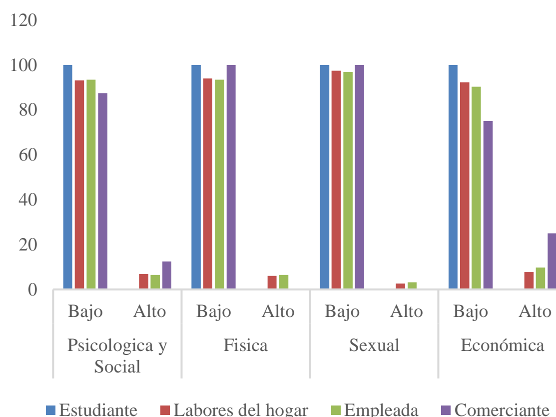
Graphic 1 Types and level of violence suffered by women attending an Urban Health Center in Minatitlán, Veracruz
Source: Intimate Partner Violence Questionnaire (CVSEP)

Age range	18-36		37-55		56-73	
	f	*%*	*f*	*%*	*f*	*%*
Psychological and social						
Low Level	125	96.2	104	90.4	27	90
High Level	5	3.8	11	9.6	3	10
Physics						
Low Level	126	96.9	108	93.9	25	83.3
High Level	4	3.1	7	6.1	5	16.7
Sexual						
Low Level	128	98.5	111	96.5	29	96.5
High Level	2	1.5	4	3.5	1	3.3
Economic						
Low Level	124	95.4	101	87.8	27	90
High Level	6	4.6	14	12.2	3	10

Table 1 Level of violence suffered according to age in women attending an Urban Health Center in Minatitlán, Veracruz
Source: Cuestionario de Violencia de Pareja (CVSEP)



Graphic 2 Level of violence suffered and schooling in women attending an Urban Health Center in Minatitlán, Veracruz
Source: Intimate Partner Violence Questionnaire (CVSEP)



Graphic 3 Level of Violence suffered and occupation in women attending an Urban Health Center in Minatitlán, Veracruz
Source: Cuestionario de Violencia de Pareja (CVSEP)

Graphic 4 Level of violence suffered and alcohol consumption in the partner of women attending an Urban Health Center in Minatitlán, Veracruz
Source: Intimate Partner Violence Questionnaire (CVSEP)

Acknowledgments

We thank all the women who participated in this research, the Centro de Salud Urbano de la Ciudad de Minatitlán, Veracruz, Mexico and the Universidad Veracruzana.

References

Carmona, E. A., y Chairez, R. C. (2015). Investigacion Academica y Redes de Colaboracion: Evidencias de Mexico. Revista Internacional Administracion & Finanzas, 8(5), 63-80.

Fuentes, S., Méndez, V., Aguila, P., and Seeger, M. 2014. Bioremediation of petroleum hydrocarbons: catabolic genes, microbial communities, and applications. Applied microbiology and biotechnology, 98(11), 4781-4794.

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

December 2021, Vol.7 No.13 12-19

López Leyva, S. (2010). Cuerpos académicos: factores de integración y producción de conocimiento. Revista de la educación superior, 39(155), 7-25.

Magaña, D.E. y Aquino, S.P. (2011). La planeación estratégica, factor clave en el desarrollo y consolidación de los cuerpos académicos. Ponencia presentada en el Congreso COLPARMEX 2011, Universidad Modelo, Mérida Yuc

Martínez, M. Á. R., y Aguado, A. L. H. (2010). La dinámica del cambio de cuerpos académicos bajo un enfoque de benchmarking: el caso de dos instituciones de educación superior. La Satisfacción de los Empleados de las Operadoras Turísticas en la Ciudad de Cancún: Un Estudio para Incrementar su Competitividad, 3(1). 61-80.

Secretaría de Educación Pública, [SEP]. (28 de Febero de 2013) "AGREEMENTnum 678 bywhichthe Rules forPerformingthe Programa de Mejoramiento del profesorado (PROMEP),"Diario Oficial de la Federación,1-90: Retrieved MArch 30, 2013 from PROMEP web site: http://promep.sep.gob.mx/reglas/Reglas_PROMEP_2009.pdf

Silva Montes, C., y Castro Valles, A. (2014). Los cuerpos académicos, recursos y colegialidad forzada. Education Policy Analysis Archives, 22(68).

Vasallo, J., y Herrera, D. 2002. Seminario de hidrocarburos. Escuela Superior de Salud y Ambiente. Universidad Nacional del Comahue. Neuquén. Argentina

Vives, I., Grimalt, J. O., and Guitart, R. 2001.+Los hidrocarburos aromáticos policíclicos y la salud humana. Apuntes de Ciencia y Tecnología, 3, 45-51. Septiembre 2015 Vol.2 No.4 968-975

Yorder, Y. 2014. Oil Prices Rise as World Walks Supply-Demand Tightrope. Pipeline & Gas Journal. 241(8), 28-36.

Wuchty, S., Jones, B. F., and Uzzi, B. (2007). The increasing dominance of teams in production of knowledge. Science, 316(5827), 1036-1039.

ECORFAN® All rights reserved.

December 2021, Vol.7 No.13 20-33

Optimizing global processing time in the detection of depression related patterns in social networks

Optimizando el tiempo de procesamiento global en la detección de patrones relacionados con la depresión en redes sociales

MARTINEZ-DIAZ, Damian†*, LUNA-ROSAS, Francisco Javier, MEDIAN-VELOZ, Gricelda and MALO-TORRES, Miriam

Instituto Tecnológico de Aguascalientes (ITA), México.

ID 1st Author: *Damián, Martinez-Diaz* / **ORC ID:** 0000-0003-2748-305X, **arXiv Author ID:** damian.martinez.diaz, **CVU CONACYT ID:** 994749

ID 1st Co-author: *Francisco Javier, Luna-Rosas* / **ORC ID:** 0000-0001-6821-4046, **arXiv Author ID:** arXivFco19, **CVU CONACYT ID:** 87098

ID 2nd Co-author: *Gricelda, Medina-Veloz* / **ORC ID:** 0000-0002-1955-3620, **arXiv Author ID:** GrisArvix18, **CVU CONACYT ID:** 228438

ID 4th Co-author: *Miriam, Malo-Torres* / **ORC ID:** 0000-0002-0304-7897, **arXiv Author ID:** Miriammalo, **CVU CONACYT ID:** 1167058

DOI: 10.35429/EJRS.2021.13.7.20.33 Received July 25, 2021; Accepted December 30, 2021

Abstract

Depression is a common mental disorder and is on the rise worldwide according to the World Health Organization (WHO) around the world, has affected more than 322 million people, affecting mainly women than men, if this condition is not addressed in the most severe cases, it can lead people to suicide. Experts say that one of the best ways to prevent depression is to listen to the people who are close to them, social networks such as Twitter or Facebook are in a unique position to help these people to connect in real time in difficult situations, but also represents a potential risk to receive information that could later prove harmful. In this research we propose a model to optimize global time processing in detecting depression-related patterns on the social network Twitter. With the proposed methodology and with our results we demonstrate that the proposed model can be a good alternative when it comes to optimize the response time in this type of problems.

Sentiment analysis, Machine learning, Depression

Resumen

La depresión es un trastorno mental frecuente y está en aumento a nivel mundial de acuerdo con la Organización Mundial de la Salud (OMS) alrededor del mundo, ha afectado a más de 322 millones de personas, afectando principalmente a la mujer que, al hombre, si este padecimiento no se atiende en los casos más graves, puede llevar a las personas al suicidio. Los expertos afirman que una de las mejores maneras de poder prevenir la depresión, es que escuchen a las personas que está cerca de ellos, las redes sociales como Twitter o Facebook están en una posición única de poder ayudar a estas personas para conectarlas en tiempo real en situaciones difíciles, pero también representa un riesgo potencial a recibir información que posteriormente podrían resultar perjudicial. En esta investigación proponemos un modelo para optimizar el procesamiento de tiempo global en la detección de patrones relacionados con la depresión en la red social Twitter. Con la metodología propuesta y con nuestros resultados se demuestran que el modelo propuesto puede ser una buena alternativa cuando se trata de optimizar el tiempo de respuesta en este tipo de problemas.

Análisis de Sentimiento, Maquinas de Aprendizaje, Depresión

Citation: MARTINEZ-DIAZ, Damián, LUNA-ROSAS, Francisco Javier, MEDIAN-VELOZ, Gricelda and MALO-TORRES, Miriam. Optimizing global processing time in the detection of depression related patterns in social networks. ECORFAN Journal-Republic of El Salvador. 2021. 7-13:20-33.

* Correspondence to Author (Email: Damian.martinez.diaz@outlook.com)
† Researcher contributing first author.

December 2021, Vol.7 No.13 20-33

Introduction

Depression is a mental illness that affects the emotional balance of people. Its detection is given fundamentally by different patterns of behavior of the individuals who suffer from it. Every year more and more people around the world are diagnosed with depression, including many adolescents and young adults. The impact of psychosocial factors in the adolescent and young adult population can exacerbate the intensity of the illness and exponentially increase suicidal ideation, suicidal attempts and even success.

Depression, according to the World Health Organization (WHO), is a common and treatable affective mental disorder, common in the world and characterized by changes in mood with cognitive and physical symptoms, and these can be of primary or secondary etiology when underlying diseases are found, such as cancer, cerebrovascular disease, acute myocardial infarction, diabetes, HIV, Parkinson's disease, eating disorders and substance abuse (World Health Organization, 2020).

According to WHO, depression around the world has affected more than 322 million people, if this condition is not treated, in the worst case it can lead to suicide, which each year has about 800,000 people, since suicide is the second leading cause of death in the age group 15-29 years. Although there are effective treatments for depression, more than half of those affected worldwide (and more than 90% in many countries) do not receive such treatments. Barriers to effective care include a lack of resources and trained health personnel, in addition to the stigmatization of mental disorders and inaccurate clinical assessment (WHO, 2017).

In Mexico, the National Institute of Statistics and Geography (INEGI) in the National Household Survey (ENH) 2017, shows that 31.96 million people aged 12 years and older have experienced a feeling of depression, which is equivalent to 3.17 million people of both sexes who reported feeling depressed on a daily basis, 3. 72 million reported feeling depressed weekly; 3.6 million reported feeling depressed once a month; while 21.39 million reported feeling depressed once a year, with this condition being more common among women with 60.34% of the total, equivalent to 19. 28 million, of which 2.11 million women reported feeling depressed daily, 2.34 million reported feeling depressed weekly, 2.35 million reported feeling depressed monthly and 12.46 million reported feeling depressed once a year, and men with 39. 65% of the total, equivalent to 12.67 million, of which 1.06 million men reported feeling depressed daily, 1.37 million reported feeling depressed weekly, 1.31 million reported feeling depressed monthly, and 8.92 million reported feeling depressed once a year (INEGI E. N., 2017).

Adolescence is a critical stage for human growth, since it has important physiological and psychological changes, as they make young people vulnerable, not knowing how to cope with them. These changes produce great anxiety, confusion, and despair. When going through a stress of conflicting feelings, both for family problems, school or their own personality, causing them to make unwise decisions such as alcoholism, drugs and even suicide attempts.

In addition, with the confinement suffered by the pandemic worldwide with SARS COV-2 or COVID-19 as it is colloquially known, according to the National Health and Nutrition Survey (ENSANUT), depression increased very significantly with a prevalence of 13.6% in 2018 (Cerecero-Garcia, 2020) to 27.3% in April 2020, although the reduction in depression has been significant, it still continues above the 2018 measurement affecting mainly women than men and with a lower socioeconomic level. This pandemic has detonated a growth in the number of internet users, in Mexico alone it is estimated that it had 84.1 million internet users, representing 72% of the population aged six years or more, increasing 1.9 points more than in 2019 (70.1%). Being 71.3% women and 72.7% men, within the main activities of users are communicating (93.8%), searching for information (91%) and browsing social networks (89%) (ENDUTIH, 2021).

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

With the increase of Internet users across the country, in recent years several researches have been guided to the detection of these disorders through machine learning, analyzing it as a problem of text classification. The process of text classification consists of extracting several features from a set of previously labeled data and from these learn models that allow to distinguish between several classes. Obtaining the data is a crucial step for the correct classification of the data, however it is a process that needs a high use of computational resources in the preprocessing, especially in the classification of data from different sources that can be obtained from social networks such as Twitter, Facebook and Instagram.

This need for computational resources has led the scientific community to seek a solution to these problems by means of parallel computing, which is a technique that is being used in the fields of simulation of mathematical, statistical, climatic calculations and even with image processing that require high processing capacity, using its use in different levels of laboratories among which we can find supercomputers, distributed systems, multicore processors, graphics processors, cloud computing up to quantum parallelism, always with the same objective which is to seek an optimization of processing times.

The rest of this article has been organized as follows. Theoretical background related to social networks, analysis and classification of short texts in section 2. The materials used in the creation of the model are detailed in section 3, The methodology and implementation details have been discussed in section 4. The evaluation of the model is demonstrated in section 5. The conclusions have been presented in section 6, followed by future work in section 7.

Theoretical background

The increasing prevalence of psychological disorders such as depression and post-traumatic stress requires a serious effort to create new tools and technologies to aid in their diagnosis and treatment. In recent years, new computational approaches have been proposed to objectively analyze the patient's nonverbal behavior (Ghosh, 2014), as well as the extraction of features in video, audio and text as proposed by (Dham, 2017) or also in a more conventional way with the use of depression inventory proposed by (Beck, 1984).

As depression is a difficult situation, ethical considerations should be taken to inform the interviewees that the data will be confidential and will be used only for research purposes as done in (Granados Cosme, 2020).

Social networks such as Twitter and Facebook are increasingly associated with phenomena such as harassment, bullying, suicide or even depression (Marouane Birjali, 2016). It is therefore very important to detect potential victims as early as possible to strengthen the prevention of these phenomena on social networks. Specific linguistic features such as articles, prepositions, auxiliary verbs, adverbs, conjunctions, personal pronouns, impersonal pronouns, verbs and negations are the most important combinations that authors (Islam, 2018) have tried to find in the comments of these social networks, in search of patterns that lead them to detect depression. There are research works for the analysis of social networks specifically on the opinion of different topics such as depression, alcoholism, and drugs. These works base some of their techniques on the extraction and classification of positive, negative and neutral feelings. This classification can be achieved by statistical analysis which is divided into supervised classification (J. Pestian, 2010), (Maria Khodorchenko, 2019), (Jacques Philip, 2016), (Robert A. Fahey, 2018), and unsupervised (Matykiewicz P, 2009) with which we can explore different types of attributes or classes, to model, detect and predict [28] depression, suicide or any other keywords.

These analyses are accompanied by different techniques and tools such as the one used by (Manabu Torii, 2015) (Nguyen T. O., 2017), who made use of natural language processing (NLP) for the detection of patterns that could help to relieve the depression attitudes of relevant online users, or looking for an improved compilation of labeled dataset with the help of heuristics (Maria Khodorchenko, 2019), (Ruben Sanchez Acosta, 2019). As well as relying on tools such as nQuiry (INQUIRY, 2020), MedEx (MEDEX, 2020), Weka (Java, 2019), RIP-PER (RIP-PER, 2020), LibSVM (Lin, 2019), Stanford NER (Group, 2020), Twitter4J (API, 2020) ,WordNet (English, 2011), they managed to generate hybrid system, based on rules and machine learning (Manabu Torii, 2015).

ECORFAN® All rights reserved.

December 2021, Vol.7 No.13 20-33

With The information generated in social networks is growing in an exponential way in content (Liang & Dai, 2013) shared by users in more than 900 social networking sites available on the Internet that are accessed today, among the most recognized we can find Facebook, Instagram, and Twitter. The latter is ranked as one of the most visited and used networks in the world, with an average of more than 58 million tweets generated per day (Li, Lei, Khadiwala, & Chang, 2012).

These "tweets" are short message posts (280 characters) which are created and shared in real time. This speed of communication is reaching the point that traditional news is becoming obsolete (Chih-Hua T., 2015), since a news story would normally take 3 hours to be reported on an incident, with a tweet shared on Twitter it would take no more than 10 minutes to be known among the users of this social network. But not everything is positive as the speed and ease of information we have on social networks causes phenomena such as harassment, bullying, depression or even suicide (Marouane Birjali, 2016), and some cases cause more unfavorable effects such as that of "copycat" called "Werther Effect" (Phillips, 1974) (Ueda M, 2017), since after the suicide of some celebrities (Marouane Birjali, 2016) makes users followers (Followers in English) of them, may come to make unwise decisions, which added to the stress and depression that one has from everyday problems due to lack of money, problems with the couple, with school or perhaps with work, school bullying etc. , can lead to a mental disorder that can be fatal.

Applying machine learning techniques to online communities is a viable method to improve our understanding of how online communication can be used to characterize people's experience of depression, as it is a very prevalent mental health problem and is a comorbidity of other mental, physical and behavioral disorders, identifying (Nguyen T. O., 2017) five subgroups of online communities: depression, bipolar disorder, self-harm, grief/grief and suicide. Psycholinguistic features and content themes were extracted from the postings and analyzed.

Even though techniques, methods and tools have been proposed, automatic detection of suicidal, depressive or stressful content in social networks is scarce, machine learning approaches are available, which have the potential to significantly impact the prediction of related events, but have not yet been able to reach short-term prediction, despite the great potential of these models, such as the low accuracy results (Bart Desmet V. H., 2018) they obtained when weighting user profiles in social networks.

Neural networks unlike some classical statistical regression models are designed to accommodate high-dimensional inputs, they can be useful for prediction. However, prospective comparisons of machine learning tools for short-term prediction have not yet been carried out, despite the tremendous potential. In part, this is because short-term risk factors derived from social networks and smartphones are not yet well characterized or validated in crucial ways, even the best computational methods for risk assessment will only be as good as the risk factor data provided to them (Torous, 2018).

Materials

Python (v3.7.x) is an interpreted programming language whose philosophy emphasizes the readability of its code. It is a multi-paradigm programming language, as it partially supports object-oriented, imperative programming and, to a lesser extent, functional programming. It is an interpreted, dynamic and cross-platform language.

Scikit-learn (v0.24.2) is a Python library that supports supervised and unsupervised learning. It also provides several tools for model fitting, data preprocessing, model selection and evaluation, and many other utilities.

Pandas (v1.3.1) is a Python library and is intended to be the fundamental high-level building block for performing practical, real-world data analysis. It also has the broader goal of becoming the most powerful and flexible open source data analysis/manipulation tool available in any language.

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

TextBlob (v0.16.0) is a Python (2 and 3) library for textual data processing. It provides a simple API to dive into common natural language processing (NLP) tasks, such as part-of-speech tagging, noun phrase extraction, sentiment analysis, classification, and translation.

Random Forest algorithm consists of a set of individual decision trees, each trained with a slightly different sample of the training data generated by bootstrapping). The prediction of a new observation is obtained by aggregating the predictions of all the individual trees that make up the model.

Representational State Transfer (REST) completely changed software engineering starting in 2000. This new approach to the development of web projects and services was defined by (Fielding, 2000), the father of the Hypertext Transfer Protocol (HTTP) specification and one of the international references in everything related to Network Architecture. In the field of Application Programming Interfaces (APIs). Currently it is difficult to find projects or applications that do not have a REST API for the creation of professional services from that software as used by Twitter, YouTube, Facebook, etc.

Twitter REST API: Offers developers access to Twitter's core data. All operations that can be performed via the web can be performed from the API. Depending on the operation it requires authentication or not, with the same criteria as in web access. Supports formats: XML, JSON, RSS, ATOM.

The computer equipment was a Microsoft Windows 10 Enterprise HP ZBOOK 15v G5, with NVIDIA Quadro 9600 graphics card with Intel® Xeon® E-2176M CPU @ 2.70GHz 2.71GHz, 16 GB memory and 500 GB solid state hard disk.

Methodology

In this section we sought to recognize the context of the problem of our research through the approach of concepts of the most relevant terms such as the vocabulary of depression to be used, the natural language processing (NLP) tools, the selected Machine Learning algorithm, the programming language and even the perfection of the techniques that were used to calibrate the model in the executed algorithm, proposing six phases that apply the above described and will be detailed as shown in Figure 1.

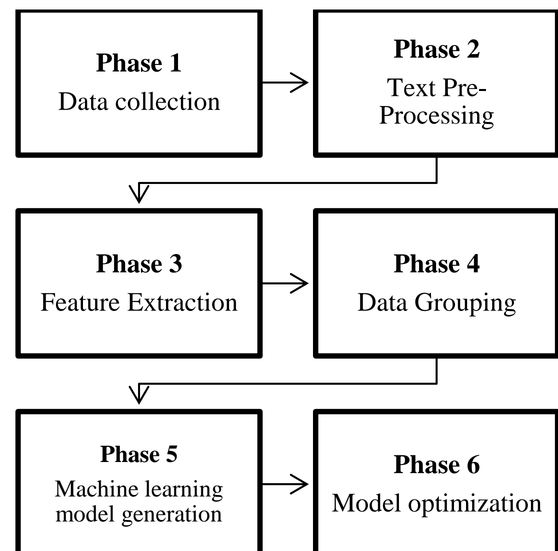


Figure 1 Phases of the proposed methodology

I. Phase 1. Data Collection.

The phase begins with the definition of the vocabulary of various words detected in the literature on depression. In Annex 1. the words that were collected in the English language vocabulary such as anxiety, anger, depression, etc., as mentioned (Ghosh, 2014), (Islam, 2018), (James G. Phillips, 2019), (Nguyen T. V., 2016), (Beltran, 2012), (Padilla-Navarro, 2016), (Marouane Birjali, 2016) can be observed. With this vocabulary related to depression topics, tweets were filtered on the social network Twitter. The collection of tweets was carried out for a period of 2 hours daily over a period of approximately 6 months, achieving a significant sample of more than 1,000,000 tweets, which were backed up in a database of files for processing in the following phases of this research.

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

II. Phase 2. Text preprocessing

With the use of natural language processing methods and techniques, we seek to transform the data obtained into a formal representation of the tweets extracted from Twitter. In this transformation, the texts are sought to be cleaned and prepared for processing before sentiment classification, where misspellings, stop words, sentence boundaries, punctuation marks are removed and emoticons or emojis are replaced by corresponding words, among other techniques, such as those used by (Bart Desmet V. H., 2018), (Tadesse MM, 2019), (Cheeda, 2018), (Agarwal, 2011), (McDonals, 2020), which propose converting tweets to lowercase, elimination of special characters such as [:;?()!,.], blank spaces etc.; which in the cases used by the literature have worked for the proposed purpose, but for our research it is proposed to add a list of techniques which we will call from now on, techniques for eliminating noise in tweets (TER-TWS). Since, added to those used in the literature, we can obtain a tweet with less noise and with more selective text for use in the proposed model.

The tweet de-noising technique (TER-TWS) is composed of the following list of tasks.

- Replace abbreviations [don't].
- Remove old style retweets (RT).
- Change all comment text to lowercase.
- Replace website URLs with local variable.
- Replace @username with local variable.
- Replace blank spaces.
- Replace Hashtag (#).
- Remove special characters and numbers.
- Remove e-mails.
- Remove line breaks.
- Remove duplicate words.
- Apply the Stop Words technique.

III. Phase 3. Feature extraction

In this phase we seek to extract the most relevant features and that are extremely useful for the correct classification or retrieval of information to be detected in the tweet, for which tokenization techniques such as the one used by (Bart Desmet V. H., 2018) (Bart Desmet V. H., 2013) are used in the message, eliminating words that have little interest for our research, generating a feature vector for each of the tweets collected.

This vector is created from a set of N consecutive elements in a document (tweet), which includes words, numbers, symbols and punctuations, which were in some cases eliminated in the previous phase for not being relevant, this based on the N-gram modeling that is used in text mining and PLN (M. M. Tadesse, 2019). Another strategy used is the lemmatization technique which is a process by which the words of a text belonging to the same inflectional paradigm that taken to a normal form represents the whole class until the corresponding lemma is found. This lemma is the form that by convention is accepted as representing all the inflected forms of the same word. With the help of these two techniques used in this phase it is possible to visualize in the vector obtained from the tweet the following form ['seen', 'terrible', 'argument', 'weapon', 'victim', 'death', 'heartbreak', 'tragedy'], which has been run through the more than one million tweets collected and which will be used in the next phase.

IV. Phase 4. Grouping of the data.

In this phase we have challenges with the sentiment analysis, since we must determine if there is any opinion in the tweet since it could be just an objective comment or always a response to another user, as well as a topic not relevant to the depression, for this reason it is important to recognize the abbreviations and idioms of the words to be found. Unfortunately, as Twitter is an informal social network, what is expressed by users is not always the most structured, accented and popular words are used in most of the messages according to the region where it has been used and that are not necessarily in the traditional dictionary, and sometimes we can find in the same sentence positive and negative words, which makes it more complicated to determine the polarity of the option expressed by users.

ECORFAN® All rights reserved.

The polarity of each tweet is determined by assigning a score of [-1.0, 1.0] which refers to how the text can be measured in positive or negative depending on the tone of the tweet, for which -1 will indicate that they are more negative and +1 is more positive, while the value of zero will be considered as a neutral sentiment. A subjectivity score [0.0, 1.0] refers to the representation of a subjective or objective meaning, where the value close to zero represents an objective comment and close to 1 is a subjective comment (Tom De Smedt, 2020).

To detect polarity and subjectivity in the tweets collected for this research, use was made of Python's TextBlob library, which internally uses a dictionary with a total of 2920 words previously classified with polarity and subjectivity values, it can be an advantage to use a dictionary-based approach to extract tweet sentiment, since a large number of words with their orientations can be found quickly, but it can be turned into a disadvantage since such sentiment orientations of the words collected in this way are general or independent of the author's context and language.

Based on the obtained result of polarity and subjectivity we used a lexical approach since using a large number of tweets and with the bag of words created in the previous phases, we assigned an individual score to each of the words in the vector and finally calculated the sentiment by a grouping operation, with the mean of the sentiments. We classified this with 5 different numerical indicators (classes), in the more than 1,000,000 tweets used in this research, which were given a textual value for the human understanding and a numerical indicator for the machine understanding of our algorithm, using the latter for classification based on a machine learning line (Yang, 2018), as can be seen in Table 1.

Indicators	Value	Classes
P+	Very Positive	5
P	Low Positive	4
NEU	Neutral	3
N	Slightly Negative	2
N-	Very Negative	1

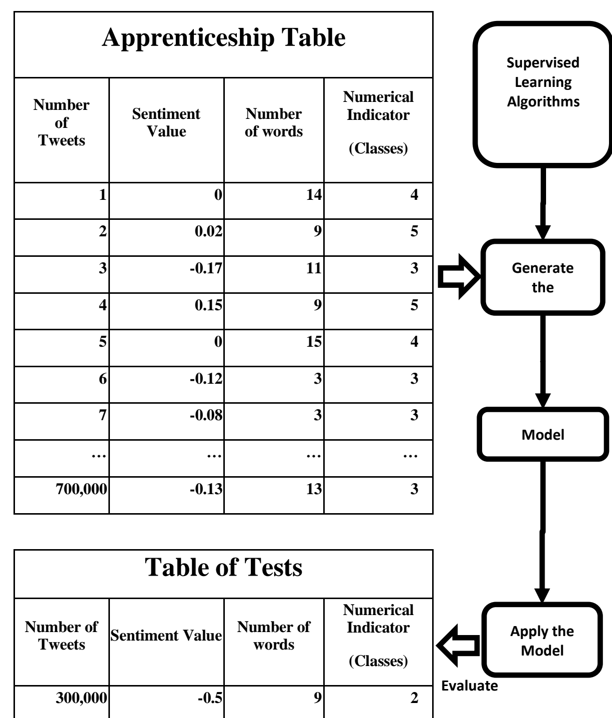
Table 1 Polarization-based sentiment indicators and values

Where the values are added in the Excel file used in previous phases, adding two more columns, where we can see the indicator value very positive, little positive, neutral, little negative and very negative with their respective numerical class for our algorithm. These will be used in the next phase as output data for the model to be used.

V. Phase 5. Machine Learning Model Generation

The supervised learning (Machine Learning) takes a set of data (inputs) and known responses, and looks for a way to build a predictive model that generates reasonable or adequate predictions to the new data entered. That is, given a database $D=\{t1, t2, ...,tn\}$ of tuples or records (individuals) and a set of classes $C=\{C1, C2, ...,Cm\}$, the classification/prediction problem is to find a function $f: D\rightarrow C$ such that each ti is assigned to a class Cj. $f:D\rightarrow C$ could be a KNN Method, a Decision Tree Method, a Support Vector Machine, a Bayesian Model, a Random Forest Method and a Boosting Method (Francisco Luna Rosas, 2018).

Figure 2 shows our supervised learning model to detect depression-related patterns in social networks.



Apprenticeship Table

Number of Tweets	Sentiment Value	Number of words	Numerical Indicator (Classes)
1	0	14	4
2	0.02	9	5
3	-0.17	11	3
4	0.15	9	5
5	0	15	4
6	-0.12	3	3
7	-0.08	3	3
...	...	...	...
700,000	-0.13	13	3

Table of Tests

Number of Tweets	Sentiment Value	Number of words	Numerical Indicator (Classes)
300,000	-0.5	9	2

Figure 2 Supervised learning model

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

The Algorithm selected for this research was Random Forest, being a supervised machine learning algorithm, it has two important features, regression and classification, using the latter with a calibration of 200 decision trees in the forest (estimator). To train and test it, the Table Testing method was used, which implies that a percentage of data was used for training and another percentage was used for testing (Francisco Luna Rosas, 2018) (Maaoui, 2016), in both cases the input data were the value of the sentiment, and the number of words per tweet and the output to predict is the numerical indicator of the class, in our case of the total number of tweets collected and processed in the previous phases was 1,000,000 and of which 70% were used for training which equals 700,000 and the remaining 30% for testing which equals 300,000 as shown in Table 2.

Tweets Collected (1,000,000)	
Training (700,000)	Testing (300,000)

Table 2 Testing table method

VI. Phase 6. Model optimization

The main contribution of our research is the optimization of the overall processing time of the model, in which parallel computing is key to achieve our goal. There are different forms of parallel computing such as: bit-level parallelism, instruction-level parallelism, data parallelism and task parallelism (Rosas, 2018). The latter was the one used in our research, since it makes use of the concurrent programming paradigm that consists of assigning different tasks to each of the processors of a computing system.

Taking into consideration that social networks continue to take a wide boom worldwide and that users share millions of tweets with different contexts, the volume of data is considerable, and according to WHO estimates, depression has affected more than 322 million (INEGI, 2019) per year globally, this research can be a link between the needs of depression prevention with the interaction of technological trends of social networks with users going through this situation.

The Python programming language used in all phases of this research has support for Parallel processing, being one of the favorite languages for Big Data analysis, using libraries such as multiprocessing or threading (Python, 2020), which use "parent process" and "workers" or "helpers" architectures, formerly known as "master" and "slave" (Mariatta, 2018), as well as the management of processing threads in the system, which will help us to optimize the execution time of the preprocessing phases seen in the previous sections.

To achieve time optimization, phases I, II, III and IV were selected, because they carry a high degree of computational processing, from the extraction, cleaning, calibration and classification of the data, which causes it to take considerable time to preprocess them in a conventional sequential manner and is where parallel processing makes a big difference.

With the generation of the database that was created in phase I, 10 files with different number of tweets and file size were created. see Table 3.

Cycles	MB Size	Number of Tweets	Sequential Process (Seconds)	Parallel Process (Seconds)	Optimization %
1	49.05	100,000	733.99	151.8	79.32
2	113.66	200,000	1303.24	298.82	77.07
3	163.82	300,000	2298.57	450.68	80.39
4	214.46	400,000	2626.05	601.69	77.09
5	265.21	500,000	3516.43	752.16	78.61
6	316.73	600,000	4223.19	912.5	78.39
7	368.43	700,000	4568.22	1061.01	76.77
8	419.99	800,000	5252.52	1202.75	77.10
9	471.62	900,000	6288.38	1353.21	78.48
10	523.62	1,000,000	7151.38	1494.95	79.10

Table 3 Sequential vs. Parallel execution times

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

Which were processed sequentially and in parallel, where in the sequential process began with the reading of file by file and tweet by tweet invoking the process of the other facets involved in the optimization, which makes the preprocessing slow and visualizing a considerable time which is doubled for each of the files, as visualized in Table IV, where we can clearly see that going through 100,000 tweets in the first file and finishing it achieves an approximate time of 733.99 seconds, and when continuing with the second one it increases to 1303.24 seconds and so on, unlike the parallel process, which reads file by file, but with the difference that the tweets are distributed by the total number of cores that the system has available, which is achieved with Python's own libraries mentioned above, to do the same tasks of the phases mentioned above, however in a parallel way, a time optimization is achieved, which in the first file we can see an improvement of 79.32% which is equivalent to 151. 8 seconds, and thus improving the next one with a time of 298.82 seconds, which is equivalent to 77.07% improvement and so on, a challenge to be considered in this optimization is the level of computation that must be considered for this type of optimizations, because as the files in the cycles grow in size and data in number of tweets, it is more complicated its processing, because it takes all the resources of the system to attend the task sequentially and the tasks in parallel.

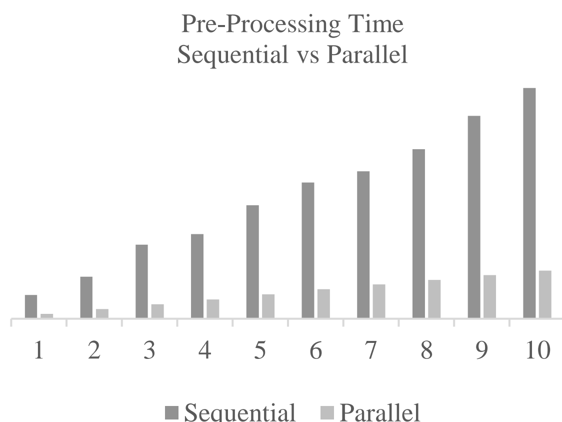


Figure 3 Preprocessing times between Sequential and Parallel

In Figure 3 we can visualize the 10 cycles with the improvements previously seen in Table IV, and in which we can clearly see how the parallel processing is separated far above the sequential processing, achieving an overall preprocessing optimization percentage of 78.23% between the comparison of the two processing techniques.

Model Evaluation

The model performance evaluation as the literature recommends, makes use of a confusion matrix (Maaoui, 2016), which contains information about the actual and estimated classifications, this matrix is NxN, where the rows are named according to the actual input classes and the columns are those predicted by the model, and are used to explicitly detail when a class is confused with another, as shown in Table 4.

Classes	1	2	3	4	5
1	**32593**	0	0	0	0
2	0	**261525**	0	0	0
3	0	0	**225622**	0	0
4	0	0	0	**174381**	0
5	0	0	0	0	**5880**

Table 4 Random Forest confusion matrix

In order to evaluate this performance, we will apply the evaluation metrics (Basu, 2012) as follows:

True positives (VP): are those samples with positive classes have been classified as positive (correctly classified).

True negatives (TN): Those samples with negative class have been classified as negative (correctly classified).

False positives (FP): Those samples with negative class that have been classified as positive (incorrectly classified).

False Negatives (FN): Those samples with positive class that have been classified as negative (incorrectly classified).

With these evaluation metrics, we are looking for:

Overall Precision (PG) which is one of the most widely used metrics for classification performance, and is defined as a ratio of correctly classified samples to the total number of samples (Tharwat, 2020) and is achieved with the following formula:

$$\boldsymbol{PG} = (\boldsymbol{VP} + \boldsymbol{VP}) / (\boldsymbol{VN} + \boldsymbol{FP} + \boldsymbol{FN} + \boldsymbol{VP}) \qquad (1)$$

ECORFAN® All rights reserved.

Accuracy (Bart Desmet V. H., 2013) is used to be able to measure the QUALITY that the model is able to identify in the classification task, and is achieved with the following formula:

$$\boldsymbol{Precision} = \boldsymbol{VP} / (\boldsymbol{VP} + \boldsymbol{FP}) \quad (2)$$

Recall (completeness or sensitivity) is used to be able to measure the QUANTITY that the model is able to identify in the classification task, and is achieved with the following formula:

$$\boldsymbol{Recall} = \boldsymbol{VP} / (\boldsymbol{VP} + \boldsymbol{FN}) \quad (3)$$

The F1-Score is used to be able to combine the measures of precision and recall into a single value, as it makes it easier to compare the combined PERFORMANCE among several solutions and is achieved with the following formula:

$$\boldsymbol{F1-Score} = \boldsymbol{2} * (\boldsymbol{Precision} * \boldsymbol{Recall}) / (\boldsymbol{Precision} + \boldsymbol{Recall}) \quad (4)$$

The Random Forest classifier was the algorithm we used in our model to validate its efficiency, we used an initial calibration for the estimators of 200, obtaining an accuracy of 1.00, with an error ratio of 0.0, the detail by indicator can be seen in Table 6.

Indicators	PG	ReCall	F1-Score	Total
1	1	1	1	**32593**
2	1	1	1	**261525**
3	1	1	1	**225622**
4	1	1	1	**174381**
5	1	1	1	**5880**

Table 6 Details of accuracy by indicato

Annexes

Annex 1. Depression vocabulary

Vocabulary English	
Literature	**Content**
Ghosh, S., Chatterjee, M., & Morency, L. P. (Ghosh, 2014)	sad, health, anxiety, anger, leisure, negate, hear, I, assent.
Islam, Md Rafiqul, Kabir, M. A., Ahmed, A., Kamal, A. R. M., Wang, H., & Ulhaq, A. (Islam, 2018)	happiness, sadness, anger, anxiety, depression, bipolar.
James G. Phillips, Leon Mann (James G. Phillips, 2019)	suicide, crowd, audience, depression, suicide attempt webcam, skype, and livestream.
Nguyen, T., Venkatesh, S., & Phung, D. (Nguyen T. V., 2016)	Sadness, health, anxiety, death, insight, negations, etc.
Beltrán, M. D. C., Freyre, M. Á., & Hernández-Guzmán, (Beltrán, 2012)	Sadness, Pessimism, Dissatisfaction, Guilt, Self-loathing, Irritability, Fatigue, etc.
Padilla-Navarro, C., Pedruelo, M. R., & Ramírez, C. L. (Padilla-Navarro, 2016)	anxiety, anger, depression, self-consciousness, immoderation, vulnerability, etc.
Marouane Birjali, Abderrahim Beni-Hssane, Mohammed Erritali. (Marouane Birjali, 2016)	fear, depression, harassment.

Conclusion

Social networks are at a very high point of popularity and this attracts the attention of people from all over the world to create social interconnections between users. Opinion mining and sentiment analysis on Twitter data are more popular with the passage of time, making users to express their sentiments with a greater ease. In this research, we have proposed a methodology to detect depression-related opinions using this type of mining and analysis. The proposed system is able to analyze a large dataset of tweets to classify them into five different classes from neutral, very negative, and little negative, as well as, little positive and very positive.

The text classification techniques used in the collected tweets have been adjusted, adapted and integrated to build a methodology to help the classification of the proposed indicators is this research and have shown that, with a good classification of sentiment polarity using tweet denoising techniques (TER-TWS), good results can be obtained, achieving in our model an acceptable accuracy of 100 with no margin of error.

Finally, it has been demonstrated that parallel processing with the use of multiprocessors and task distribution generates us better results in the preprocessing times of the more than 1,000,000 tweets classified with the methodology in its different phases, 78.23% overall time optimization has been achieved against traditional sequential processing.

ECORFAN® All rights reserved.

Future work

With the results obtained, we will seek to optimize the times with clustering techniques in distributed containerized systems, which can help us to further optimize these response times for the prediction of tweets posted by users with depression problems and some other disorder that is able to be used within our same methodology.

References

Agarwal, A. B. (2011). Sentiment analysis of twitter data. En L. 2011 (Ed.), In Proceedings of the Workshop on Language in Social Media, (págs. 30-38). New York, USA.

API, T. -A. (2020). Twitter4j.org. (twitter4j.org) Obtenido de http://twitter4j.org/en/

Bart Desmet, V. H. (2013). Emotion detection in suicide notes. Expert Systems with Applications, 40(16), 6351-6358. Obtenido de https://doi.org/10.1016/j.eswa.2013.05.050.

Bart Desmet, V. H. (May 2018 de 2018). Online suicide prevention through optimised text classification. Information Sciences, 439–440, Pages 61-78, ISSN 0020-0255, doi: https://doi.org/10.1016/j.ins.2018.02.014.

Basu, T. a. (2012). A feature selection method for improved document classification. Advanced Data Mining and Applications., 7713, 296-305.

Beck, A. T. (1984). Internal consistencies of the original and revised Beck Depression Inventory. Journal of clinical psychology, 1365-1367. doi:doi.org/10.1002/1097-4679(

Beltrán, M. D.-G. (2012). El Inventario de Depresión de Beck: Su validez en población adolescente. Terapia psicológica,, 5-13. doi:dx.doi.org/10.4067/S0718-48082012000100001

Cerecero-García, D. F.-G.-M.-A. (2020). Síntomas depresivos y cobertura de diagnóstico y tratamiento de depresión en población mexicana. Salud Pública de México, 62(6), 840-850. doi: https://doi.org/10.21149/11558

Cheeda, S. S. (2018). Automated trading of cryptocurrency using twitter sentimental analysis. J. Comput. Sci. Eng, (págs. 209-214).

Chih-Hua T., Z.-H. T.-S.-S. (2015). Mental Disorder Detection and Measurement Using Latent Dirichlet Allocation and SentiWordNet. 2015 IEEE International Conference on Systems, Man, and Cybernetics, Kowloon, 2015, 1215-1220, doi: 10.1109/SMC.2015.217.

Dham, S. S. (2017). Depression scale recognition from audio, visual and text analysis. doi:arXiv:1709.05865v1

ENDUTIH, 2. (22 de Junio de 2021). https://www.inegi.org.mx/app/saladeprensa/noticia.html?id=6606. Recuperado el 2021 de Julio de 2021, de https://www.inegi.org.mx/contenidos/saladeprensa/boletines/2021/OtrTemEcon/ENDUTIH_2020.pdf

English, W. |. (1 de Junw de 2011). Wordnet.princeton.edu. (1 June 2011;) Recuperado el 2020, de https://wordnet.princeton.edu/

Fielding, R. T. (2000). Architectural Styles and the Design of Network-based Software Architectures. Recuperado el 3 de Agoust de 2021, de https://www.ics.uci.edu/~fielding/pubs/dissertation/top.htm

Francisco Luna Rosas, J. C. (5 de Enero-Diciembre de 2018). PCA Y SVM EN PARALELO PARA OPTIMIZAR EL DIAGNOSTICO DE CÁNCER DE MAMA BASADO EN ESPECTROSCOPÍA RAMAN. DYNA New Technologies, 14. Obtenido de http://dx.doi.org/10.6036/NT8597

Ghosh, S. C. (2014). A multimodal context-based approach for distress assessment. In Proceedings of the 16th International Conference on Multimodal Interaction, (págs. 240-246).

Granados Cosme, J. A. (2020). Depresión, ansiedad y conducta suicida en la formación médica en una Universidad en México. Investigación en educación médica,, 35. doi:doi.org/10.22201/facmed.20075057e.2020.35.20224

Group, T. S. (2020). Nlp.stanford.edu. Recuperado el 2020, de https://nlp.stanford.edu/ner/

ECORFAN® All rights reserved.

INEGI. (10 de Septiembre de 2019). ESTADÍSTICAS A PROPÓSITO DEL DÍA MUNDIAL PARA LA PREVENCIÓN DEL SUICIDIO. Obtenido de https://www.inegi.org.mx/contenidos/saladeprensa/aproposito/2019/suicidios2019_Nal.pdf

INEGI, E. N. (2017). Encuesta Nacional de los Hogares (ENH) 2017. (inegi) Obtenido de https://www.inegi.org.mx/temas/salud/: https://www.inegi.org.mx/programas/enh/2017/

INQUIRY. (2020). Merriam-webster.com. Recuperado el 2020, de https://www.merriam-webster.com/dictionary/inquiry

Islam, M. R. (2018). Depression detection from social network data using machine learning techniques. Health information science and systems, 1-12. doi:doi.org/10.1007/s13755-018-0046-0

J. Pestian, H. N. (Jan de 2010). Suicide Note Classification Using Natural Language Processing: A Content Analysis. Biomedical Informatics Insights, 3, Available: 10.4137/bii.s4706.

Jacques Philip, T. F. (2016). Relationship of Social Network to Protective Factors in Suicide and Alcohol Use Disorder Intervention for Rural Yup'ik Alaska Native Youth,. Psychosocial Intervention,, 25(1), Pages 45-54, ISSN 1132-0559, https://doi.org/10.1016/j.psi.2015.08.002.

James G. Phillips, L. M. (2019). Suicide baiting in the internet era. Computers in Human Behavior, 92, 29-36. doi:https://doi.org/10.1016/j.chb.2018.10.027.

Java, W. 3.-D. (2019). Cs.waikato.ac.nz. (University of Waikato) Obtenido de https://www.cs.waikato.ac.nz/ml/weka/

Li, K., Lei, H., Khadiwala, R., & Chang, K. C. (2012). TEDAS: A Twitter-based Event Detection and Analysis System. 2012 IEEE 28th International Conference on Data Engineering, 1273-1276, doi: 10.1109/ICDE.2012.125.

Liang, P., & Dai, B. (2013). Opinion mining on social media data. in 2013 IEEE 14th International Conference on Mobile Data Management 2013, 2, 91-96, Available: 10.1109/MDM.2013.73.

Lin, C.-C. C.-J. (10 de September de 2019). LIBSVM -- A Library for Support Vector Machines. (September 10, 2019) Obtenido de www.csie.ntu.edu.tw/~cjlin/libsvm

M. M. Tadesse, H. L. (2019). Detection of Depression-Related Posts in Reddit Social Media Forum. IEEE, 7, 44883-44893. doi:10.1109/ACCESS.2019.2909180.

Maaoui, C. F. (2016). Automatic human stress detection based on webcam photoplethysmographic signals. Journal of Mechanics in Medicine and Biology, 16(4). doi:https://doi.org/10.1142/S0219519416500391

Manabu Torii, J.-w. F.-l. (Dec de 2015). Risk factor detection for heart disease by applying text analytics in electronic medical records. Journal of biomedical informatics, Volume 58, Supplement,(ISSN 1532-0464), S164-S170, https://doi.org/10.1016/j.jbi.2015.08.011.

Maria Khodorchenko. (2019). Distant supervision and knowledge transfer for domain-oriented text classification in online social networks,. Procedia Computer Science,, 156, 166-175,ISSN 1877-0509,https://doi.org/10.1016/j.procs.2019.08.192.

Mariatta, S. a.-i. (07 de 09 de 2018). Avoid master/slave terminology. (https://bugs.python.org/issue34605) Obtenido de https://bugs.python.org/issue34605

Marouane Birjali, A. B.-H. (2016). A Method Proposed for Estimating Depressed Feeling Tendencies of Social Media Users Utilizing Their Data. Proceedings of the 16th International Conference on Hybrid Intelligent Systems (HIS 2016), 552, págs. 413-420.

Matykiewicz P, D. W. (2009). Clustering semantic spaces of suicide notes and newsgroups articles. In Proceedings of the BioNLP 2009 Workshop 2009 , (págs. 179-184).

McDonals, B. (10 de April de 2020). University of Notre Dame. (University of Notre Dame) Obtenido de https://www3.nd.edu/~mcdonald/

MEDEX. (2020). Medex.com.bd. Recuperado el 2020, de https://medex.com.bd/

ECORFAN® All rights reserved.

Nguyen, T. O. (21 de December de 2017). Using linguistic and topic analysis to classify sub-groups of online depression communities. Science+Business Media, 76(April 2017), 1573-7721, https://doi.org/10.1007/s11042-015-3128-x.

Nguyen, T. O. (21 de December de 2017). Using linguistic and topic analysis to classify sub-groups of online depression communities. Science+Business Media, 76(April 2017), 1573-7721,. doi:https://doi.org/10.1007/s11042-015-3128-x

Nguyen, T. V. (December de 2016). Textual cues for online depression in community and personal settings. (págs. 19-34). Springer, Cham.

Organizacion Mundial de la Salud. (30 de Enero de 2020). https://www.who.int/es/news-room/fact-sheets/detail/depression. Recuperado el 31 de Julio de 2021, de https://www.who.int/es/news-room/fact-sheets/detail/depression

Padilla-Navarro, C. P. (2016). Modelado de un sistema multi-agente aplicado a la predicción de la personalidad en Twitter. Research in Computing Science, (págs. 147-156.).

Phillips, D. P. (Jun de 1974). The Influence of Suggestion on Suicide: Substantive and Theoretical Implications of the Werther Effect. American Sociological Review, Vol. 39,, 340-354,DOI: 10.2307/2094294.

Python. (2020). https://docs.python.org/3/library/multiprocessing.html. (Python) Obtenido de https://docs.python.org/3/library/multiprocessing.html

RIP-PER. (2020). TheFreeDictionary.com. Recuperado el 2020, de https://www.thefreedictionary.com/ripper

Robert A. Fahey, T. M. (December de 2018). Tracking the Werther Effect on social media: Emotional responses to prominent suicide deaths on twitter and subsequent increases in suicide,. Social Science & Medicine,, 219, 19-29, ISSN 0277-9536, https://doi.org/10.1016/j.socscimed.2018.10.004

Rosas, F. J. (2018). Optimal Design in the Removal of Fluorescence and Shot Noise in Raman Spectra from Biological Samples. The Steering Committee of The World Congress in Computer Science, Computer Engineering and Applied Computing (WorldComp).

Rubén Sánchez Acosta, C. M. (Dic de 2019). Heurísticas para Data Augmentation en NLP: Aplicación a Revisiones de Artículos Científicos. RISTI-Revista Ibérica de Sistemas e Tecnologias de Informação, 34, 44-53. doi:10.17013/risti.34.44–53

Tadesse MM, L. H. (4 de Apr de 2019). Detection of Depression-Related Posts in Reddit Social Media Forum. IEEE Access., 7, 83-93. DOI: 10.1109/ACCESS.2019.2909180 .

Tharwat, A. (2020). Classification assessment methods. Applied Computing and Informatics. doi:doi.org/10.1016/j.aci.2018.08.003

Tom De Smedt, W. D. (2020). textblob. Obtenido de https://github.com/sloria/TextBlob/blob/dev/textblob/en/en-sentiment.xml.

Torous, J. L. (28 de 06 de 2018). Smartphones, Sensors, and Machine Learning to Advance Real-Time Prediction and Interventions for Suicide Prevention: a Review of Current Progress and Next Steps. Current Psychiatry Reports, 51, 1535-1645, DOI: https://doi.org/10.1007/s11920-018-0914-y.

Ueda M, M. K. (2017). Tweeting celebrity suicides: Users' reaction to prominent suicide deaths on Twitter and subsequent increases in actual suicides. Social Science & Medicine,, 189, Pages 158-166, ISSN 0277-9536, https://doi.org/10.1016/j.socscimed.2017.06.032

WHO, W. H. (7 de april de 2017). Depression and Other Common Mental Disorders. (Global Health Estimates) Obtenido de Organización Mundial de la Salud (World Health Organization): https://www.who.int/mental_health/management/depression/prevalence_global_health_estimates/en/

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

Yang, Y. a. (2018). Large scale and parallel sentiment analysis based on Label Propagation in Twitter Data. In 2018 17th IEEE International Conference On Trust, Security And Privacy In Computing And Communications/12th IEEE International Conference On Big Data Science And Engineering (TrustCom/BigDataSE), (págs. 1791-1798). New York, NY, USA. doi:10.1109/TrustCom/BigDataSE.2018.00270

ECORFAN® All rights reserved.

Article **ECORFAN Journal-Republic of El Salvador**
December 2021, Vol.7 No.13 34-43

Seeing and thinking about suffering in the Middle Ages

Ver y pensar el sufrimiento en la Edad Media

SÁNCHEZ-USÓN, María José†*

Universidad Autónoma de Zacatecas, Mexico.

ID 1st Author: *María José, Sánchez-Usón* / **ORC ID:** 0000-0002-3409-4055, **Researcher ID Thomson:** S-7908-2018, **CVU CONACYT ID:** 432522

DOI: 10.35429/EJRS.2021.13.7.34.43 Received July 30, 2021; Accepted December 30, 2021

Abstract

In history, one of the main stigmas of humanity has been and still is pain. Its origin goes back to the dawn of time, when it was inflicted on men by the biblical God as a punishment for their disobedience. From that moment on, man loses his paradisiacal perennity, being condemned to fall from eternity into time, that is to say, into History ; this experience is lived with pain, being linked, mainly, to illness. Thus, throughout the centuries, in the different civilizations and cultures that have succeeded one another, pain and all that it entails has been an immense obstacle and has caused constant anxiety, being omnipresent in the daily life of individuals. The Middle Ages eloquently attests to this.

Pain, Suffering, Middle Ages, Images

Resumen

En la historia, uno de los principales estigmas de la humanidad ha sido y es el dolor. Su origen se remonta al principio de los tiempos, cuando fue infligido a los hombres por el Dios bíblico como castigo por su desobediencia. A partir de ese momento, el hombre pierde su perennidad paradisíaca, estando condenado a caer desde la eternidad en el tiempo, es decir, en la Historia; esta experiencia se vive con dolor, estando ligada, principalmente, a la enfermedad. Así, a lo largo de los siglos, en las diferentes civilizaciones y culturas que se han sucedido, el dolor y todo lo que conlleva ha sido un inmenso obstáculo y ha provocado una constante ansiedad, estando omnipresente en la vida cotidiana de los individuos. La Edad Media da cuenta de ello elocuentemente.

Dolor, Sufrimiento, Edad Media, Imágenes

Citation: SÁNCHEZ-USÓN, María José. Seeing and thinking about suffering in the Middle Ages. ECORFAN Journal-Republic of El Salvador. 2021. 7-13:34-43.

* Correspondence to Author (Email: sanchez-usonmj@uaz.edu.mx)
† Researcher contributing first author.

December 2021, Vol.7 No.13 34-43

Introduction

In history, one of the main stigmas of humanity has been and still is pain. Its origin goes back to the dawn of time, when it was inflicted on men by the biblical God as a punishment for their disobedience. The book of *Genesis* records the moment when Yahweh expelled Adam and Eve from Paradise for eating the forbidden fruit of the tree of the knowledge of good and evil, with the following words:

> To the woman he said: «I will intensify the pangs of your childbearing; in pain shall you bring forth children. Yet your urge shall be for your husband, and he shall be your master».
>
> To the man he said: « Because you listened to your wife and ate from the tree of which I had forbidden you to eat, "Cursed be the ground because of you! In toil shall you eat its yield all the days of your life.
>
> Thorns and thistles shall it bring forth to you, as you eat of the plants of the field.
>
> By the sweat of your face shall you get bread to eat, until you return to the ground, from which you were taken; For you are dirt, and to dirt you shall return » (Genesis 3 :16-19).

From that moment on, man loses his paradisiacal perennity, being condemned to fall from eternity into time, that is to say, into History ; this experience is lived with pain, being linked, mainly, to illness. Thus, throughout the centuries, in the different civilizations and cultures that have succeeded one another, pain and all that it entails has been an immense obstacle and has caused constant anxiety, being omnipresent in the daily life of individuals. However, the attitude of societies towards painful sensations has not been one of passive inaction ; on the contrary, they have constantly sought all possible mechanisms to eradicate them, or at least to alleviate them, trying to find their origin and causes.

In the Middle Ages, despite the dominant christian conception of pain as a means of expiation, linking it to the exemplary patience of Job, the medieval archetype of christian piety, and to the sufferings endured by Christ during his passion and until his death, progress in the treatment and cure of diseases was unstoppable. Heir to the Greco-Latin knowledge, in the 7th century, Saint Isidore of Seville defines in his *Etymologies* the concept of "medicine":

> Medicina est quae corporis vel tuetur vel restaurat salute: cuius materia versatur in morbis et vulneribus. Ad hanc itaque pertinent non ea tantum quae ars eorum exhibet, qui proprie medici nominantur, sed etiam cibus et potus, tegmen et tegumen. Defensio denique omnis atque munitio, qua [sanum] nostrum corpus adversus externos ictus casusque servatur (San Isidoro de Sevilla, 2004, pp. 472-473).

But it was the arabs who, after their essential work of translation from Greek, gathered the sum of the medical knowledge of Antiquity, taking care to determine in the human body the precise location of pain. For example, the Persian Avicenna (980-1037) defined it as a concrete sensation associated with the nervous system. His work, included in the texts *The Book of Healing* and *The Canon of Medicine*, had a great influence in christian Europe, inspiring the work of later great thinkers such as Albert the Great (1193-1280), Thomas Aquinas (1225-1274) and the Bolognese physician Mondino de Lucci (1265-1326); the latter would designate the brain as the place where the impression of pain is generated. Thus, pain is understood as a sensation of the body part. It is therefore undeniable that

> Pain has a clear bodily component. The bodily sensitivity sharply reflects the discomfort of pain. Bodily pain is strongly rejected by the person, provoking a real repugnance. The body appears to the person, as a source of pain, as hostile and degraded. The body image is disastrous. The growth of the person suffers (Fuster, 2004, p. 268).

Pain and suffering

It is well understood that pain (a temporary discomfort or an illness) is a given of the human condition. For us humans, pain is a measure that brings us closer to the corporeal dimension of existence. It reminds us that we are alive and mortal. It is therefore a paradoxical concept, since pain is, at the same time, the privilege and the tragedy of the human being. On the basis of this reflection, we confront ourselves with a metaphysical anthropology:

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

> Anthropology and metaphysics cannot be separated. The anthropology of pain demands a metaphysics of suffering, which must necessarily involve the metaphysics of being and of the person, as we noted above. In a certain sense, the thought of suffering "revolutionizes" metaphysical understanding. Thus, pain configures homo patiens, in a unique experience suffered in the integrality of man -in the body, in the psyche, in the spirit-.
>
> This personal configuration of pain significantly involves the body, consciousness, time and the self (Fuster, 2004, p. 268).

But is it the same thing as pain is? Should we make a distinction between these two concepts, or should we assimilate them if they are equivalent? Are we facing a dualism?

In the history of philosophy, most of its representatives had to face this transcendental dualism ; the examples are numerous. Plato, Aristotle, the Fathers of the Church... and much later, Schopenhauer or Cioran... speak about the existence of pleasure and pain, of contradictory values corresponding to good and evil. It is from their thoughts that the problems of pain and suffering are questioned, as well as the cogitations on the nature of evil, the finality of life and the finitude of man.

Here is the first point to consider. There is a dualism (or several dualisms) to be resolved: a long-known dualism between the body and the soul (or spirit). From this point of view, we can speak of a physical pain and a psychic or moral suffering, given that we traditionally separate the pain of the flesh and the suffering of the psyche. This distinction opposes the body and the soul of man as if they were two different realities, when in truth they are not so different; therefore, the pain-suffering dualism is no more founded than the body-spirit dualism.

But what happens in the Middle Ages? Here, dualism is fully objectified. At that time, this undeniable, dual and fractured behavior is, on the other hand, a constant in medieval man, coming from the christian binomial soul/body. It is the religious conception that underlies the idea of the drama, and will be assumed by certain romantic authors, tributary of the Middle Ages. I think, for example, of Victor Hugo when he writes:

> Du jour où le christianisme a dit à l'homme : « Tu es double, tu es composé de deux êtres, l'un périssable, l'autre immortel, l'un charnel, l'autre éthéré, l'un enchaîné par les appétits, les besoins et les passions, l'autre emporté sur les ailes de l'enthousiasme et de la rêverie, celui-ci enfin toujours courbé vers la terre, sa mère, celui-là sans cesse élancé vers le ciel, sa patrie » ; de ce jour le drame a été créé (Hugo, 1912, p. 23).

The dramatic condition of the man in the Middle Ages seems obvious. Far from being a tragic individual who accepts his fate and destiny (in the Nietzschean manner), he accepts pain, suffering, torture and all the trials that are destructive as a means of expiation and redemption. This is the christian dimension that governs his life. From this acceptance, immersed in a theocentric world, he interprets and accepts his reality without revolt.

The Church will play a decisive role in this respect. In the theological defense of a being split into body and soul, medieval men and women suffer in silence in this "valley of tears", which for them is the earth, with the aim of winning his soul for Heaven, which is the true life, a supernatural life, that is to say: the real.

The dualism of body and soul was defended in the Middle Ages; but let us remember that the double representation of the human person - soul and body - is not an invention of Christianity. This representation is already that of Platonism, which will occupy an important part in christian theology, and which can be described as dualist. Later, medieval theology would offer us hundreds of variants of the following statement, which can be seen as the central axis of the christian conception of the person: the human being is made up of a body, carnal and perishable, and a single soul, a spiritual entity, immaterial and immortal.

Centuries later, modern thought, in rejecting this division of the man, also rejects the fact that pain, which is physical in nature, and suffering, which is psychological, are categories that must be thought of separately. We even come to abandon the use of a deeply rooted vocabulary that integrates a disjunction between what belongs to the body on the one hand and what belongs to the mind on the other, as if the human condition were not from the outset, and in an irreducible way, a bodily condition.

ECORFAN® All rights reserved.

Article
ECORFAN Journal-Republic of El Salvador
December 2021, Vol.7 No.13 34-43

Finally, pain is a medical concept and suffering a concept of the subject who feels it. It seems that it is necessary to distinguish between them without separating them.

The medieval world accepts this dualism because it is dominated by marked antagonisms, which paradoxically lodge, grow and emerge in acts, attitudes and the individual and social imaginary : good and evil, the sublime and the humble, the spiritual and the material, the sinister and the comic, virtue and temptation, sin and forgiveness, life and death are all present in daily life in the Middle Ages, in a proportion and balance incomprehensible to the man of today. There are no boundaries between the visible and the invisible. The medievalist Jacques Le Goff will say of medieval man that not only: "lo visible es para él la huella de lo invisible, sino que lo sobrenatural irrumpe en su vida cotidiana a cada instante" (Le Goff, 1995, p. 38).

The testimony of medieval images

The Middle Ages is a period in which pain and suffering are recognized as having mutual implications. The images left to us by the artistic manifestations of the time are often more eloquent than the narratives and allow us to see, to apprehend, and then to think about them with more accuracy. Diseases, wars, injustices, poverty, executions, torture, martyrdom, loneliness, anguish, despair... are largely described by means of visual, graphic and plastic arts in wall paintings, cloister and church decorations, as well as in illuminated manuscripts. These works certainly make us think and perhaps think with Voltaire that: "La comparaison de ces siècles avec le nôtre doit nous faire sentir notre bonheur" (Voltaire, 1773, p. 73).

From a theological point of view, those responsible for most of the plagues suffered by humanity are the Four Horsemen of the Apocalypse : the White Horse (Conquest), the Red Horse (War), the Black Horse (Famine), the Pale Horse (Death/Epidemic).

Figure 1 "The Four Horsemen", The *Beatus* of Ferdinand I and Sancie, f. 145r. Biblioteca Nacional de España, Madrid

They are particularly represented in this page of the codex *Beatus de Liebana,* a commentary on the *Apocalypse* of Saint John, written in the eighth century by the monk Beatus in the Hispanic kingdom of Asturias. This is the copy commissioned by King Ferdinand I of Castile and Leon and his wife, Queen Sancha, which was written by the copyist Facundus and completed in 1047 (Fig. 1).

In the fourteenth century, the Pale Horse of epidemics ravaged Europe. Between 1347 and 1348, a previously unknown disease, the bubonic plague, black plague or black death, which came from Asia and was transmitted by infected fleas, ravaged more than a third of the European population. This unfortunate situation caused both a demographic and economic catastrophe.

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

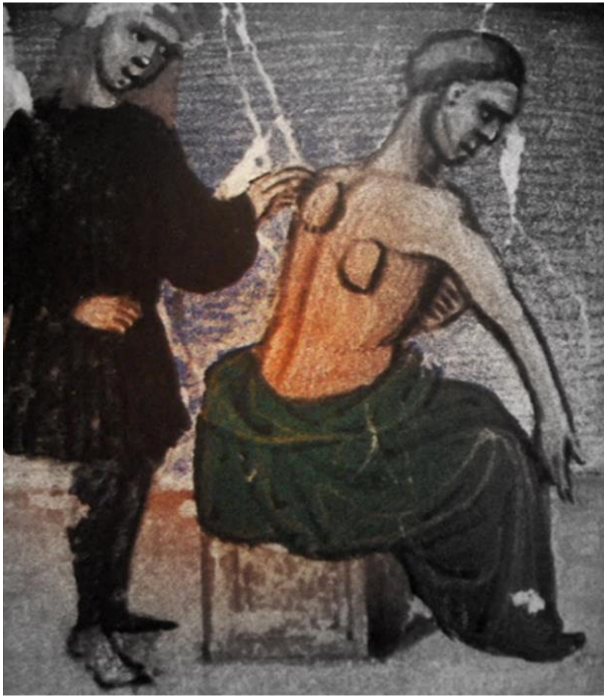


Figure 2 Ms. 1438. University Library, Bologna

This supra image shows a physician auscultating and treating the buboes of a plague patient; these are swollen lymph nodes that can open and form oozing sores (Fig. 2).

In a world of insecurity and uncertainty, diseases coexist with medieval man constantly, and he tries, available to him, to curb them. The existing medical treatises are also numerous; they include the main diseases and the known remedies to fight them. The image below belongs to the fourteenth-century *Tacuinum Sanitatis,* a medieval health manual based on an Arabic medical treatise written by Ibn Butlân around 1050 (Fig. 3). It shows a man vomiting blood and being helped by his wife, as is still customary today: the woman placing her hands on the patient's forehead.

Figure 3 "Vomitus". *Tacuinum Sanitatis,* Codex Vindobonensis, Ser. N. 2644, f.99v., XIVème siècle. Nationalbibliothek, Vienne

In the Middle Ages, surgical operations were also common. Here is a trepanning of a man's brain apparently without anesthesia (Fig. 4). This is *The Extraction of the Stone of Madness*, one of the pictorial works belonging to the first stage of the Dutch painter Hieronymus Bosch from the late 15th century.

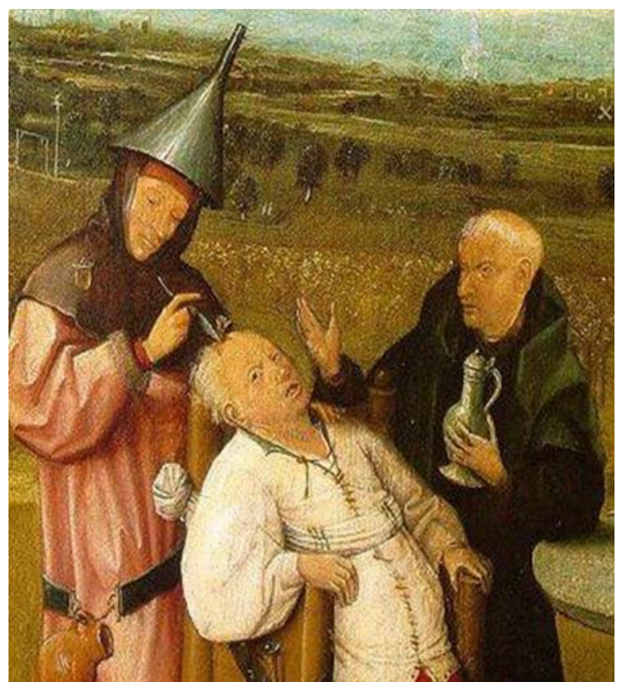


Figure 4 *The Extraction of the Stone of Madness.* Jérôme Bosch, ca. 1494. Museo Nacional del Prado, Madrid

ECORFAN® All rights reserved.

This painting describes a type of surgery that, according to written accounts, consisted of removing a stone that caused the man's madness. It illustrates the medieval custom of believing that madmen had a stone lodged in their heads. However, some minor operations were entrusted to barbers, who were responsible for pulling teeth without the use of anesthesia (Fig. 5). On the other hand, the medieval imagination believed that toothaches are painful because they are inhabited by demons and worms. This idea remained unchanged until the 18th century.

Figure 5 Letter "D" of the manuscript *Omne bonum*, Royal 6 E VI, fol. 503v., James le Palmer, 1360-1375. British Library, London

In general, pain and moral suffering cannot be separated. This is the case with the situation of the medieval recluses (Fig. 6). These women were volunteers who, in their youth, were locked up as undead. Protected by the ecclesiastical hierarchies and fed by the municipalities, they had a propitiatory function for the cities. Walled up in a cell that was too small, dedicated to suffering or prayer, living on public charity, the recluses were familiar figures in the Middle Ages. And if in our time reclusion has become synonymous with punishment, it has long embodied a form of spiritual perfection. At the same time, for hundreds of women left behind and marginalized, it could at least represent a last honorable refuge.

Figure 6 «Perceval in conversation with his recluse aunt ». Ms. 343, fol. 21v. BNF, Paris

But “la réclusion volontaire est certainement la forme de mort au monde la plus rigoureuse que le christianisme ait conçue […] La réclusion permet d’éclairer en particulier les liens étroits qui lient la femme et la mort” (L’Hermite Leclercq, 1994, p. 151).

Despite the exceptional spiritual and symbolic function that the recluses had, they could not fight against sadness, an automatic response of the organism, a psychic manifestation that responds to unfavorable circumstances, painful and persistent states, deficiencies of resources, negative and anguishing thoughts and frustrations of all kinds.

One of the manifestations of sadness was acedia, a disease marked by “l’instabilité, l’incapacité de tenir des engagements, la perte de sens et la désespérance” (Nault, s.d.), (Fig. 7). It is the monastic tradition that has named "acedia" to this kind of spiritual laziness that at certain hours reaches the monks or those who dedicate themselves to an ascetic life of silence and prayer ; it is not for nothing that this affliction has been called "the demon of noon". In christian circles, the first to speak of it was Evagrius the Pontic, one of the desert Fathers of the fourth century.

ECORFAN® All rights reserved.

Figure 7 "Acedia", The Seven Deadly Sins and The Four Last Human Steps. Jérôme Bosch, 1475-1480. Museo Nacional del Prado Madrid

In the Middle Ages, women were often punished by their husbands, being locked up, beaten and even killed by them. The following image shows a husband beating his wife in front of servants or neighbors, with no one coming to his aid (Fig. 8).

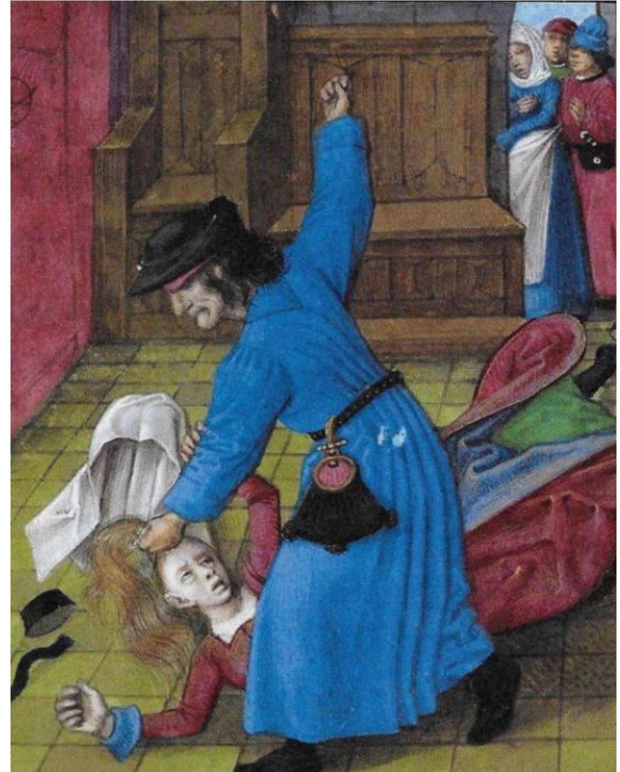


Figure 8 *Roman de la Rose,* detail of the manuscript copied ca. 1490-1500 in Bruges. British Library, London.

For their wives, considered most of the time as an object belonging to them, the husbands were at the same time fathers and bosses. They suffered daily not only from physical pain, but also from psychological after-effects that plunged them into states of extreme anxiety, so that, feeling powerless, an abysmal depression led them to *desperatio.*

> Le désespoir n'est pas seulement la condition du pécheur qui se retrouve privé de toute possibilité de rédemption. Il est aussi un vice. En effet, en tant que tristesse excessive, le désespoir (*desperatio*) s'oppose à la vertu de l'espérance (*spes*). Tout comme la figure de l'endeuillé et celle du damné, la représentation du désespoir en tant que vice reprend encore une fois les signes visuels de l'affliction. Dans *Le Roman de la Rose*, parmi les différents portraits de vices qui sont peints ou sculptés sur la muraille d'un verger, se trouve celui de Tristesse (Marcoux, 2011, p. 2).

ECORFAN® All rights reserved.

Figure 9 «Sadness». *Les enluminures du Roman de la Rose,* Ms. P. A. 23, f°5v, XIVème siècle, Bibliothèque Municipale de la Part-Dieu, Lyon

In this image we see a desperate woman tearing her dress and pulling out her hair (Fig. 9). In the end, the unbearable suffering leads to suicide.

> Le mot « suicide » n'existait pas au Moyen Age. Il n'est apparu qu'aux XVIIe-XVIIIe siècles […] Le Moyen Age n'employait pas un mot, mais des périphrases diverses : « être homicide de soi-même », « s'occir soi-même », « se meurtrir » ... Toutes définissaient un homicide dont l'auteur était en même temps la victime. Mais assurément, le suicidé était considéré avant tout comme l'auteur d'un crime, non comme sa victime. Or un homicide au Moyen Age n'était pas l'équivalent d'un homicide aujourd'hui : pour son auteur, et même, en dehors des cas de suicide, pour la victime (cas de « mort subite »), il était une terrifiante option sur l'au-delà. Ainsi en allait-il en particulier du suicide (Schmitt, 1976, p. 4).

The christian church therefore excommunicated people who attempted to commit suicide and those who finally did, so that they could not be buried in the sacredness of the christian church.

Figures 10, 11 Details of the miniatures of the manuscript "Le suicide de Pancharus", *Puissance d'amours,* Ms. 526, f. 10, XIVth century. Richard de Fournival. Dijon Municipal Library. Photo IRHT; rights of the community, CNRS and MCC

ECORFAN® All rights reserved.

ECORFAN Journal-Republic of El Salvador
December 2021, Vol.7 No.13 34-43

Figure 12 Full page of the manuscript "Le suicide de Pancharus", *Puissance d'amours,* Ms. 526, f. 10, XIVth century. Richard de Fournival. Dijon Municipal Library. Photo IRHT; rights of the community, CNRS and MCC

The preceding images could well be allegories of suicide (Figs. 10, 11, 12). They evoke the tragic character of Pancharus who, desperate to have killed by mistake his beloved, the queen of Femenia, commits suicide:

> Pancharus, sénéchal et connétable de Trace, qui, trop épris de la reine de Femenie, négligeait de défendre les terres de son seigneur. Celui-ci, pour lui faire oublier la dame, l'envoya hors du pays. Mais Pancharus revint de nuit et pénétra secrètement dans la chambre où son amie dormait. Ayant entendu deux respirations sortir du lit, il crut que sa dame le trompait et la transperça de son épée ; puis découvrit le lit et reconnut que c'était, non un rival, mais une petite chienne qui « alenoit si fort ». De désespoir, il se tua (Langlois, 1904, p. 109).

This fragment summarizes one of the stories in *Puissance d'amours*, a work by Richard de Fournival, canon of Amiens Cathedral, doctor and French poet of the 13th century. Part of the literary and cultural movement of Courtly Love, or Fin 'Amor as it is called in Occitan, this text is one of a series of works that served young knights in their apprenticeship and initiation to the game of love. Contrary to what one might think, the didactic and religious dimensions are present in this type of text. Consequently, if the suicide and the feeling which animates it are here a dramatic literary reason they are not less condemnable. "À la gesticulation succède alors le geste irrémédiable de l'autodestruction accompli ici à l'aide d'une épée que Pancharus plonge dans son abdomen. Ces […] images affirment ainsi, on ne peut plus clairement, le lien de causalité qui existe au Moyen Âge entre le désespoir et la damnation éternelle" (Marcoux, 2011, p. 5).

In conclusion, after these examples, it appears that it was necessary to live this medium aevum bearing the full weight of pain and suffering in order to gain eternal life. This was the only objective that the believer had to conquer. We must not forget that to the list of adverse situations we must add many others, such as war, the red horse of the Four Horsemen of the Apocalypse; the torture of heretics condemned to the stake; the memory of the calvary of the ancient christian martyrs and those of this era ; without omitting to mention the constant and silent affliction of the serfs working from dawn to dusk in execrable living conditions.

But, since the christian vision, the men and women of the Middle Ages have a powerful and unquestionable model in which they can contemplate their torments and sorrows reflected and compared: it is Jesus Christ. If he suffers, men also suffer with him. In the 13th century, representations of the crucifixion continued to grow. The image of the Crucified expresses all the anguish of the pain of a dying god in the image of the man.

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

December 2021, Vol.7 No.13 34-43

To come closer to this model, christians have an archetype, an exemplary and inspiring man : it is the subiectus, the submissive one, incarnated by Job, the biblical saint, who endures all the trials of Satan, authorized by God, without renouncing his faith and respecting the divine will : «The Lord gave and the Lord has taken away ; blessed be the name of the Lord ! ». However, let us not forget that this dark image of the Middle Ages is not the only one we can reconstruct. During these centuries, people enjoy life, have fun, celebrate and hope that evil will quickly dissipate and good will enter their lives without delay. After all, it is a doublé age that is not so different from ours.

References

Fuster, Ignasi (2004). “Perspectiva antropológica del sufrimiento”, *ESPÍRITU,* No. LIII. Barcelona : Balmes, pp. 263-277.

Hugo, Victor (1912). *Oeuvres complètes. Cromwell. Hernani,* Préface. Paris : L’imprimerie Nationale-La Librairie Ollendorff.

Isidoro de Sevilla, San (2004). *Etimologías*, Lib. IV. Madrid: BAC.

Langlois, Ernest (1904). « Quelques œuvres de Richard de Fournival », *Bibliothèque de l'École des chartes*, Tm. 65. Paris : Société de l’École des chartes, pp. 101-115.

Le Goff, Jacques (1995). *El hombre médiéval.* Madrid : Alianza Editorial.

L’Hermite-Leclercq, Paulette (1994). “La femme, la recluse et la mort”, *Muerte, religiosidad y cultura popular. Siglos XIII-XVIII.* Zaragoza: Institución “Fernando el Católico”, DPZ, Zaragoza, pp. 151-162.

Marcoux, Robert (2011). «Vultus velatus ou la figuration positive de la tristesse dans l’iconographie de la fin du Moyen Âge», *Médiévales: Langue, textes, histoire,* No. 61, Paris: Presses Universitaires de Vincennes, pp. 1-20.

Nault, Don Jean-Charles (s.d.). «Qu’est-ce que l’acédie? », *Aleteia.* https://questions.aleteia.org/articles/131/quest-ce-que-lacedie. Accessed: 10/11/2021.

Sociétés, Civilisations, 31ème année, No. 1. Paris: EHESS, pp. 3-28.

Schmitt, Jean-Claude (1976). «Le suicide au Moyen Âge», *Annales. Économies, Sociétés, Civilisations*, 31ème année, No. 1. Paris: EHESS, pp. 3-28.

The Catholic Bible, New American Bible-Vatican. https://www.vatican.va/archive/ENG0839/__P5.HTM. Accessed: 2/11/2021.

Voltaire (1773). *Essai sur les mœurs et l'esprit des nations,* Tm. IV. Neuchâtel: Imprimerie de la Société Typographique de Neuchâtel.

ISSN-On line: 2414-4886
ECORFAN® All rights reserved.

Article

ECORFAN Journal-Republic of El Salvador

Month, Year Vol.1 No.1 1-15-[Using ECORFAN]

[Title in Times New Roman and Bold No. 14 in English and Spanish]

Surname (IN UPPERCASE), Name 1st Author†*, Surname (IN UPPERCASE), Name 1st Coauthor, Surname (IN UPPERCASE), Name 2nd Coauthor and Surname (IN UPPERCASE), Name 3rd Coauthor

Institutional Affiliation of Author including Dependency (No.10 Times New Roman and Italic)

<u>*International Identification of Science - Technology and Innovation*</u>

ID 1st Author: (ORC ID - Researcher ID Thomson, arXiv Author ID - PubMed Author ID - Open ID) and CVU 1st author: (Scholar-PNPC or SNI-CONACYT) (No.10 Times New Roman)

ID 1st Coauthor: (ORC ID - Researcher ID Thomson, arXiv Author ID - PubMed Author ID - Open ID) and CVU 1st coauthor: (Scholar or SNI) (No.10 Times New Roman)

ID 2nd Coauthor: (ORC ID - Researcher ID Thomson, arXiv Author ID - PubMed Author ID - Open ID) and CVU 2nd coauthor: (Scholar or SNI) (No.10 Times New Roman)

ID 3rd Coauthor: (ORC ID - Researcher ID Thomson, arXiv Author ID - PubMed Author ID - Open ID) and CVU 3rd coauthor: (Scholar or SNI) (No.10 Times New Roman)

(Report Submission Date: Month, Day, and Year); Accepted (Insert date of Acceptance: Use Only ECORFAN)

Abstract (In English, 150-200 words)

Objectives
Methodology
Contribution

Keywords (In English)

Indicate 3 keywords in Times New Roman and Bold No. 10

Abstract (In Spanish, 150-200 words)

Objectives
Methodology
Contribution

Keywords (In Spanish)

Indicate 3 keywords in Times New Roman and Bold No. 10

Citation: Surname (IN UPPERCASE), Name 1st Author, Surname (IN UPPERCASE), Name 1st Coauthor, Surname (IN UPPERCASE), Name 2nd Coauthor and Surname (IN UPPERCASE), Name 3rd Coauthor. Paper Title. ECORFAN Journal-Republic of El Salvador. Year 1-1: 1-11 [Times New Roman No.10]

* Correspondence to Author (example@example.org)
† Researcher contributing as first author.

© ECORFAN Journal-Republic of El Salvador

ECORFAN Journal-Republic of El Salvador
Month, Year Vol.1 No.1 1-15-[Using ECORFAN]

Introduction

Text in Times New Roman No.12, single space.

General explanation of the subject and explain why it is important.

What is your added value with respect to other techniques?

Clearly focus each of its features

Clearly explain the problem to be solved and the central hypothesis.

Explanation of sections Article.

Development of headings and subheadings of the article with subsequent numbers

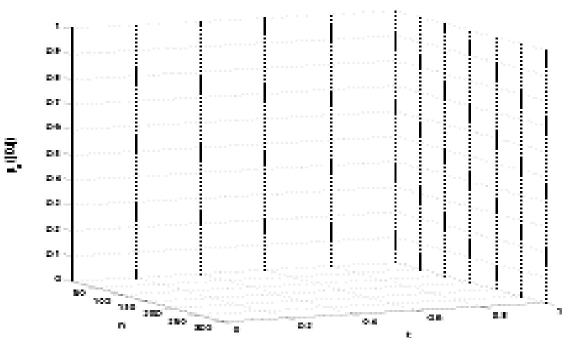
[Title No.12 in Times New Roman, single spaced and bold]

Products in development No.12 Times New Roman, single spaced.

Including graphs, figures and tables-Editable

In the article content any graphic, table and figure should be editable formats that can change size, type and number of letter, for the purposes of edition, these must be high quality, not pixelated and should be noticeable even reducing image scale.

[Indicating the title at the bottom with No.10 and Times New Roman Bold]



Graphic 1 Title and *Source (in italics)*

Should not be images-everything must be editable.

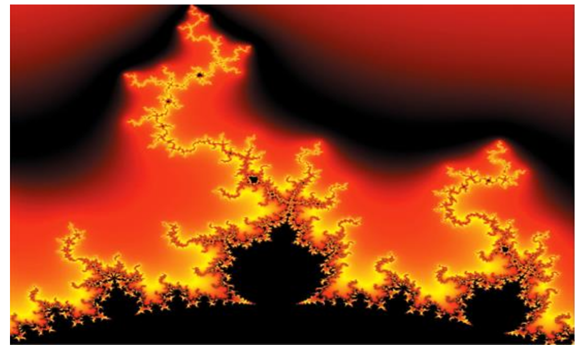


Figure 1 Title and *Source (in italics)*

Should not be images-everything must be editable.

Table 1 Title and *Source (in italics)*

Should not be images-everything must be editable.

Each article shall present separately in **3 folders**: a) Figures, b) Charts and c) Tables in .JPG format, indicating the number and sequential Bold Title.

For the use of equations, noted as follows:

$$Y_{ij} = \alpha + \sum_{h=1}^{r} \beta_h X_{hij} + u_j + e_{ij} \qquad (1)$$

Must be editable and number aligned on the right side.

Methodology

Develop give the meaning of the variables in linear writing and important is the comparison of the used criteria.

Results

The results shall be by section of the article.

Annexes

Tables and adequate sources

Thanks

Indicate if they were financed by any institution, University or company.

Conclusions

Explain clearly the results and possibilities of improvement.

ISSN 2414-4886
ECORFAN® All rights reserved

References

Use APA system. Should not be numbered, nor with bullets, however if necessary numbering will be because reference or mention is made somewhere in the Article.

Use Roman Alphabet, all references you have used must be in the Roman Alphabet, even if you have quoted an Article, book in any of the official languages of the United Nations (English, French, German, Chinese, Russian, Portuguese, Italian, Spanish, Arabic), you must write the reference in Roman script and not in any of the official languages.

Technical Specifications

Each article must submit your dates into a Word document (.docx):

Journal Name
Article title
Abstract
Keywords
Article sections, for example:

1. Introduction
2. Description of the method
3. Analysis from the regression demand curve
4. Results
5. Thanks
6. Conclusions
7. References

Author Name (s)
Email Correspondence to Author
References

Intellectual Property Requirements for editing:

-Authentic Signature in Color of Originality Format Author and Coauthors

-Authentic Signature in Color of the Acceptance Format of Author and Coauthors

ECORFAN® All rights reserved

Reservation to Editorial Policy

ECORFAN Journal-Republic of El Salvador reserves the right to make editorial changes required to adapt the Articles to the Editorial Policy of the Journal. Once the Article is accepted in its final version, the Journal will send the author the proofs for review. ECORFAN® will only accept the correction of errata and errors or omissions arising from the editing process of the Journal, reserving in full the copyrights and content dissemination. No deletions, substitutions or additions that alter the formation of the Article will be accepted.

Code of Ethics - Good Practices and Declaration of Solution to Editorial Conflicts

Declaration of Originality and unpublished character of the Article, of Authors, on the obtaining of data and interpretation of results, Acknowledgments, Conflict of interests, Assignment of rights and Distribution.

The ECORFAN-Mexico, S.C Management claims to Authors of Articles that its content must be original, unpublished and of Scientific, Technological and Innovation content to be submitted for evaluation.

The Authors signing the Article must be the same that have contributed to its conception, realization and development, as well as obtaining the data, interpreting the results, drafting and reviewing it. The Corresponding Author of the proposed Article will request the form that follows.

Article title:

– The sending of an Article to ECORFAN Journal-Republic of El Salvadoremanates the commitment of the author not to submit it simultaneously to the consideration of other series publications for it must complement the Format of Originality for its Article, unless it is rejected by the Arbitration Committee, it may be withdrawn.

– None of the data presented in this article has been plagiarized or invented. The original data are clearly distinguished from those already published. And it is known of the test in PLAGSCAN if a level of plagiarism is detected Positive will not proceed to arbitrate.

– References are cited on which the information contained in the Article is based, as well as theories and data from other previously published Articles.

– The authors sign the Format of Authorization for their Article to be disseminated by means that ECORFAN-Mexico, S.C. In its Holding Republic of El Salvador considers pertinent for disclosure and diffusion of its Article its Rights of Work.

– Consent has been obtained from those who have contributed unpublished data obtained through verbal or written communication, and such communication and Authorship are adequately identified.

– The Author and Co-Authors who sign this work have participated in its planning, design and execution, as well as in the interpretation of the results. They also critically reviewed the paper, approved its final version and agreed with its publication.

– No signature responsible for the work has been omitted and the criteria of Scientific Authorization are satisfied.

– The results of this Article have been interpreted objectively. Any results contrary to the point of view of those who sign are exposed and discussed in the Article.

Copyright and Access

The publication of this Article supposes the transfer of the copyright to ECORFAN-Mexico, SC in its Holding Republic of El Salvador for its ECORFAN Journal-Republic of El Salvador, which reserves the right to distribute on the Web the published version of the Article and the making available of the Article in This format supposes for its Authors the fulfilment of what is established in the Law of Science and Technology of the United Mexican States, regarding the obligation to allow access to the results of Scientific Research.

Article Title:

Name and Surnames of the Contact Author and the Coauthors	Signature
1.	
2.	
3.	
4.	

Principles of Ethics and Declaration of Solution to Editorial Conflicts

Editor Responsibilities

The Publisher undertakes to guarantee the confidentiality of the evaluation process, it may not disclose to the Arbitrators the identity of the Authors, nor may it reveal the identity of the Arbitrators at any time.

The Editor assumes the responsibility to properly inform the Author of the stage of the editorial process in which the text is sent, as well as the resolutions of Double-Blind Review.

The Editor should evaluate manuscripts and their intellectual content without distinction of race, gender, sexual orientation, religious beliefs, ethnicity, nationality, or the political philosophy of the Authors.

The Editor and his editing team of ECORFAN® Holdings will not disclose any information about Articles submitted to anyone other than the corresponding Author.

The Editor should make fair and impartial decisions and ensure a fair Double-Blind Review.

Responsibilities of the Editorial Board

The description of the peer review processes is made known by the Editorial Board in order that the Authors know what the evaluation criteria are and will always be willing to justify any controversy in the evaluation process. In case of Plagiarism Detection to the Article the Committee notifies the Authors for Violation to the Right of Scientific, Technological and Innovation Authorization.

Responsibilities of the Arbitration Committee

The Arbitrators undertake to notify about any unethical conduct by the Authors and to indicate all the information that may be reason to reject the publication of the Articles. In addition, they must undertake to keep confidential information related to the Articles they evaluate.
Any manuscript received for your arbitration must be treated as confidential, should not be displayed or discussed with other experts, except with the permission of the Editor.

The Arbitrators must be conducted objectively, any personal criticism of the Author is inappropriate.

The Arbitrators must express their points of view with clarity and with valid arguments that contribute to the Scientific, Technological and Innovation of the Author.

The Arbitrators should not evaluate manuscripts in which they have conflicts of interest and have been notified to the Editor before submitting the Article for Double-Blind Review.

Responsibilities of the Authors

Authors must guarantee that their articles are the product of their original work and that the data has been obtained ethically.

Authors must ensure that they have not been previously published or that they are not considered in another serial publication.
Authors must strictly follow the rules for the publication of Defined Articles by the Editorial Board.

The authors have requested that the text in all its forms be an unethical editorial behavior and is unacceptable, consequently, any manuscript that incurs in plagiarism is eliminated and not considered for publication.

Authors should cite publications that have been influential in the nature of the Article submitted to arbitration.

Information services

Indexation - Bases and Repositories

RESEARCH GATE (Germany)
GOOGLE SCHOLAR (Citation indices-Google)
REDIB (Ibero-American Network of Innovation and Scientific Knowledge- CSIC)
MENDELEY (Bibliographic References Manager)

Publishing Services

Citation and Index Identification H
Management of Originality Format and Authorization
Testing Article with PLAGSCAN
Article Evaluation
Certificate of Double-Blind Review
Article Edition
Web layout
Indexing and Repository
ArticleTranslation
Article Publication
Certificate of Article
Service Billing

Editorial Policy and Management

San Quentin Avenue, R 1-17 Miralvalle - San Salvador-El Salvador. Phones: +52 1 55 6159 2296, +52 1 55 1260 0355, +52 1 55 6034 9181; Email: contact@ecorfan.org www.ecorfan.org

ECORFAN®

Chief Editor
ALAS-SOLA, Gilberto Américo. PhD

Executive Director
RAMOS-ESCAMILLA, María. PhD

Editorial Director
PERALTA-CASTRO, Enrique. MsC

Web Designer
ESCAMILLA-BOUCHAN, Imelda. PhD

Web Diagrammer
LUNA-SOTO, Vladimir. PhD

Editorial Assistant
TREJO-RAMOS, Iván. BsC

Translator
DÍAZ-OCAMPO, Javier. BsC

Philologist
RAMOS-ARANCIBIA, Alejandra. BsC

Advertising & Sponsorship

(ECORFAN® El Salvador), sponsorships@ecorfan.org

Site Licences

03-2010-032610094200-01-For printed material, 03-2010-031613323600-01 For Electronic material,03-2010-032610105200-01-For Photographic material,03-2010-032610115700-14-For the facts Compilation,04-2010-031613323600-01-For its Web page,19502-For the Iberoamerican and Caribbean Indexation,20-281 HB9-For its indexation in Latin-American in Social Sciences and Humanities,671-For its indexing in Electronic Scientific Journals Spanish and Latin-America,7045008-For its divulgation and edition in the Ministry of Education and Culture-Spain,25409-For its repository in the Biblioteca Universitaria-Madrid,16258-For its indexing in the Dialnet,20589-For its indexing in the edited Journals in the countries of Iberian-America and the Caribbean, 15048-For the international registration of Congress and Colloquiums. financingprograms@ecorfan.org

Management Offices

San Quentin Avenue, R 1-17 Miralvalle - San Salvador-El Salvador.

ECORFAN Journal-Republic of El Salvador

"Euthanasia: decided and informed end in human development"

RAMOS-JAUBERT, Rocío Isabel, CEPEDA-GONZÁLEZ, María Cristina, MUÑOZ- LÓPEZ, Temístocles and RAMÍREZ- CHÁVEZ, Jorge

Universidad Autónoma de Coahuila

Clínica de Otorrinolaringología

"Intimate partner violence in women attending an urban health center"

MORENO-MONCLUB, Luisa Xiomara, CORTAZA-RAMÍREZ, Leticia, HERNÁNDEZ-RAMÍREZ, Zayra Vanessa and CRUZ-AVALOS, Geraldine

Universidad Veracruzana

"Optimizing global processing time in the detection of depression related patterns in social networks"

MARTINEZ-DIAZ, Damian, LUNA-ROSAS, Francisco Javier, MEDIAN-VELOZ, Gricelda and MALO-TORRES, Miriam

Instituto Tecnológico de Aguascalientes

"Seeing and thinking about suffering in the Middle Ages"

SÁNCHEZ USÓN, María José

Universidad Autónoma de Zacatecas