

# Mental Health News during the COVID-19 Pandemic: A 3-year analysis in Paraguay

## Noticias sobre Salud Mental durante la pandemia de COVID-19: Un análisis de 3 años en Paraguay

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### ABSTRACT

**Introduction.** The connection between news sources and the connotation of mental health articles in Paraguay during the COVID-19 pandemic (2020-2023) significantly impacted public opinion about mental health. **Objective.** This study analyzed news on mental health in Paraguay in the context of the COVID-19 pandemic. **Material and methods.** A descriptive retrospective study of all news articles on mental health published in the three primary newspapers of the country between May 2020 and May 2023 was conducted. The keywords were depressive disorders, anxiety disorders, bipolar disorder, schizophrenia, and mental health issues. **Results.** A total of 534 news were examined, 39.5% published by *La Nación* newspaper, 33.1% in 2023, and in 88.4% the author's identity and gender were not specified. Of the writing characteristics, 99.8% were written in the third person, 62.7% had a human-interest context, 48.5% had a neutral connotation, 65.7% focused on health and well-being, and 7.5% written by health experts. The year of publication was statistically associated to connotation ( $p=0.003$ ) and context ( $p<0.001$ ). **Conclusion.** The media has paid significant attention to mental health. Despite the objectivity provided by third-person narration, problems arise because of a lack of author identification. To encourage balanced and non-polarized reporting, it is crucial to incorporate expert voices and promote the framing of mental health stories as "human interest".

**Palabras clave:** mental health; news; newspaper article; COVID-19; Paraguay

### RESUMEN

**Introducción.** La conexión entre las fuentes de noticias y la connotación de los artículos sobre salud mental en Paraguay durante la pandemia de COVID-19 (2020-2023) impactó significativamente en la opinión pública sobre la salud mental. **Objetivo.** analizar las noticias sobre salud mental en Paraguay en el contexto de la pandemia COVID-19. **Material y métodos.** Se realizó un estudio descriptivo retrospectivo de todos los artículos periodísticos sobre salud mental publicados en los tres principales periódicos del país entre mayo de 2020 y mayo de 2023. Las palabras clave fueron trastornos depresivos, trastornos de ansiedad, trastorno bipolar, esquizofrenia y problemas de salud mental. **Resultados.** Se examinaron 534 artículos periodísticos, 39,5% publicados por el diario *La Nación*, 33,1% en 2023 y en 88,4% no se especificó la identidad ni el género del autor. De las características de redacción, el 99,8% estaban escritos en tercera persona, 62,7% pertenecían a un contexto de interés humano, 48,5% tenían una connotación neutra, 65,7% se centraban en la salud y el bienestar y el 7,5% escritos por expertos en salud. El año de publicación se asoció significativamente con la connotación ( $p=0,003$ ) y con el contexto ( $p<0,001$ ). **Conclusión.** Los medios de comunicación han prestado gran atención a la salud mental. A pesar de la objetividad que aporta la narración en tercera persona, surgen problemas por la falta de identificación del autor. Para fomentar una información equilibrada y no polarizada, es crucial incorporar voces expertas y promover el encuadre de las historias de salud mental como "interés humano".

**Key words:** salud mental; noticias; artículo de periódico; COVID-19; Paraguay

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## INTRODUCTION

It is imperative to acknowledge the paramount importance of mental health in everyday life, particularly during the COVID-19 pandemic, which has significantly affected the well-being of individuals<sup>(1,2)</sup>. Widespread isolation, economic uncertainty, and fear of illness have exacerbated these effects<sup>(3-5)</sup>. Therefore, it is crucial to conduct an analysis of news articles to examine how mental health information has been disseminated, which topics have been most frequently addressed, and how the discourse surrounding mental health in Paraguay has been constructed.

The dissemination of information and news reporting on mental health during the COVID-19 pandemic played a pivotal role in shaping public opinion, perception, and comprehension of mental health issues. Consequently, it is important to scrutinize the process of selecting information sources and crafting news stories in this domain to evaluate the reliability and credibility of media coverage.

The decision to analyze the attributes of news sources and newsrooms is driven by the imperative to comprehend the caliber and reliability of the intelligence that has been disseminated to the public<sup>(6,7)</sup>. The year of publication and the author's gender plays a critical role in evaluating the timeliness and credibility of the sources. Furthermore, a thorough examination of writing characteristics, such as the type of grammar, context, connotation, and topic of the article, is crucial in identifying patterns in the manner mental health-related information is portrayed<sup>(8)</sup>.

The relationship between the characteristics of news sources and the connotation of mental health-related articles in Paraguay during the COVID-19 pandemic years 2020-2023, played a crucial role in shaping public perceptions of mental health<sup>(9)</sup>. The connotation of news articles can significantly influence audience perceptions of the severity of mental health issues as well as attitudes towards individuals affected by mental disorders<sup>(10,11)</sup>. Thus, the primary aim of this study was to examine the characteristics of mental health-related news in Paraguay during the pandemic to understand its potential impact on public perception.

## MATERIAL AND METHODS

### Design and sampling

This was an observational, descriptive, retrospective study of prevalence and cross-association<sup>(12,13)</sup>. Non-probabilistic sampling was used in consecutive cases. All news articles containing information on mental health published in the three primary newspapers of the country (*ABC Color*, *Última Hora*, *La Nación*) between May 2020 and May 2023, within the context of the COVID-19 pandemic in Paraguay, were included. This study focused on identifying mentions of depressive disorders, anxiety disorders, bipolar disorder, schizophrenia, and mental health issues.

### Data Collection

In our study, we collected all news articles published during the period under investigation and identified relevant sources of information containing the keywords "depression," "anxiety," "bipolar disorder," "schizophrenia," or "schizophrenic," "mental health," or "depressed," "anxiety disorder," "mental health awareness," or "mental illness."

### Variables

The following variables were selected based on the work of Arneaud et al.<sup>(14)</sup>:

a. Characteristics of the news sources: Year of publication (2020, 2021, 2022, 2023), identification, and gender of the author (male, female).

b. Writing style: Type of grammar (first person, third person), context (criminal, educational, human interest, incidental reference, medical/scientific, metaphor), connotation (positive, negative, neutral), article topic (crime, death, death by suicide, economics/finance, education, environment, health and wellness, legal/justice, mental health awareness, politics, pop culture, social/family, sports), and health expert articles (yes, no).

The article's connotation was determined based on the subjective assessments of the researchers and the overall tone of the text concerning mental health disorders, consistent with similar studies<sup>(14)</sup>.

## Data analysis

Data analysis was conducted using the statistical package Jamovi version 2 and RStudio version 2023.09.0+463. Categorical variables were summarized in the tables and figures. A chi-square test with a significance level of 5% was used to determine the relationships between the variables. The dichotomized outcome variable was utilized in the chi-square model, grouping "positive connotation" and "neutral-negative connotation."

## Ethical considerations

This study was approved by the Department of Medical Psychology of the National University of Asunción School of Medical Sciences, Paraguay. The data were handled with confidentiality, equality, and justice following the principles outlined in the Declaration of Helsinki.

## RESULTS

A total of 534 news articles on mental health were published between 2020 and 2023, 39.5% were issued by *La Nación*, 33.1% were published in 2023, and 88.4% of the news articles did not specify the gender of the author. Table 1

**Table 1.** Characteristics of news sources (N=534)

Characteristics	n	%
<b>Newspaper</b>		
La Nación	211	39.5
ABC Color	195	36.5
Última Hora	128	24.0
<b>Year of publication</b>		
2020	104	19.5
2021	99	18.5
2022	154	28.8
2023	177	33.1
<b>Author's identification and gender</b>		
Not disclosed	472	88.4
Yes, Female	48	9.0
Yes, Male	14	2.6

With regard to the writing style of the news articles, it was observed that 99.8% were written in third person, 62.7% were presented in a human-interest context, 48.5% had a neutral tone, 65.7% focused on health and well-being, and 7.5% were authored by a health expert (as shown in Table 2).

**Table 2.** Writing style of the news (N=534)

Characteristics	n	%
<b>Type of grammar</b>		
Third person	533	99.8
First-person	1	0.2
<b>Context</b>		
Metaphor	6	1.1
Educational	19	3.6
Medical/scientific	30	5.6
Incidental reference	144	27
Human interest	335	62.7
<b>Connotation</b>		
Neutral	259	48.5
Positive	93	17.4
Negative	182	34.1
<b>Article topic</b>		
Crime	3	0.6
Social/family	3	0.6
Economy/finance	4	0.7
Legal/justice	6	1.1
Environment	7	1.3

Death	7	1.3
Politics	8	1.5
Sports	19	3.6
Education	31	5.8
Pop culture	31	5.8
Awareness	32	6.0
Suicide	32	6.0
Health and wellness	351	65.7
<b>Health expert author</b>		
Yes	40	7,5
No	494	92,5

In the bivariate analysis, a statistically significant relationship was uncovered between the year of publication and connotation ( $\chi^2=19.6$   $gl=6$   $p=0.003$ ) and with the context of publication ( $\chi^2=39.4$   $gl=8$   $p<0.001$ ) (see Table 3 for details).

**Table 3.** Relationship between connotations and publication characteristics (N=534).

Characteristics	Connotation						p-value
	Neutral (n=259)		Positive (n=93)		Negative (n=182)		
	n	%	n	%	n	%	
<b>Newspaper</b>							0,09
La Nación	97	18.2	48	9.0	66	12,4	
ABC Color	98	18.4	24	4.5	73	13,7	
Última Hora	64	12.0	21	3.9	43	8,1	
<b>Year of publication</b>							0,003
2020	44	8.2	14	2,6	46	8.6	
2021	50	9.4	13	2.4	36	6.7	
2022	87	16.3	20	3.7	47	8.8	
2023	78	14.6	46	8.6	53	9.9	
<b>Author's gender</b>							0,323
Not disclosed	225	42.1	79	14.8	168	31.5	
Female	27	5.1	11	2.1	10	1.9	
Male	7	1.3	3	0.6	4	0.7	
<b>Type of grammar</b>							NA
Third person	258	48.3	93	17,4	182	34.1	
First person	1	0.2	0	0.0	0	0.0	
<b>Context</b>							< 0,001
Metaphor	3	0.6	1	0.2	2	0.4	
Educational	12	2.2	5	0.9	2	0.4	
Medical/scientific	16	3.0	4	0.7	10	1.9	
Incidental reference	51	9.6	15	2.8	78	14.6	
Human interest	177	33.1	68	12.7	90	16.9	
<b>Health expert Author</b>							0,274
Yes	23	4,3	8	1.5	9	1.7	
No	236	44,2	85	15.9	173	32.4	

## DISCUSSION

A thorough examination of news articles related to mental health in Paraguay from 2020 to 2023 was conducted. Our findings provide valuable insights into the communication of mental health news during the COVID-19 pandemic in Paraguay by highlighting several key aspects.

In total, 534 news items related to mental health were identified. This suggests a notable level of interest in and media coverage of the topic of paramount importance during the pandemic. Most of these were published in the *La Nación* newspaper. Furthermore, 2023 accounts for the highest number of news items, accounting for 33.1% of the total. This surge in coverage during the year 2023 might be attributed to a heightened public awareness of mental health issues due to the pandemic<sup>(7,16)</sup>.

A noteworthy observation concerning the attributes of the news articles was that in almost 90% of the cases, the identification and sex of the author were not specified. This

is a persistent issue in Paraguayan publications, where the author's name is often not mentioned, which differs from most publications worldwide<sup>(17)</sup>. The lack of specification may suggest a deficiency in transparency regarding news authorship or a common practice in which the gender of the author is deemed irrelevant to the subject matter of the news item. However, it is imperative to recognize that the inclusion of author information can impart additional credibility and context to news stories<sup>(18)</sup>.

Considering the attributes of newswriting, several discernible patterns have emerged. The overwhelming majority of news accounts were conveyed in third person, indicating an objective approach to reporting, which is of utmost importance in ensuring accurate coverage of mental health<sup>(18)</sup>.

It is of note that most of the news stories, comprising more than half, were framed within the context of "human interest." This methodology is crucial for fostering an emotional connection with readers and emphasizing the significance of mental health within the realm of genuine human experiences. Furthermore, the fact that 65.7% of news stories targeted "health and wellness" issues underscores the valid concern for raising mental health awareness as an integral element of the overall well-being of the population. This contrasts with other studies where the news primarily focused on criminal activities<sup>(14,19-21)</sup>.

In terms of news connotations, 48.5% presented a neutral tone, which can be considered a balanced approach to mental health coverage, avoiding polarization, and promoting an accurate representation of mental health problems. Of the news articles, 34.1% had a negative connotation, which is less than that reported in a similar study<sup>(14)</sup>.

Although only 7.5% of news items were penned by health experts, the incorporation of these voices can serve as a reliable foundation for mental health information and guidance. This is attributable to the limited number of mental health specialists in Paraguay<sup>(22,23)</sup>.

Bivariate analysis revealed a significant correlation between the connotation of news articles and both the year of publication and the context in which the news was written. This correlation may indicate a shift in the way mental health is portrayed over time, potentially reflecting the growing concern for mental health amidst the pandemic and its impact on public perception<sup>(1)</sup>.

When interpreting the results of this study, it is imperative to appreciate the significance of precise and impartial communication in mental health. Media can contribute significantly to raising consciousness and combating the stigma surrounding mental health disorders. The study's findings emphasize the necessity of increased transparency in news authorship and a fair and objective approach to reporting news stories related to mental health.

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