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AFFECTIVE PROFILES OF INSTAGRAM CONTENT ON ADOLESCENT SUICIDE AND PREVENTION:

An AI-Based Affective Analysis

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ABSTRACT

This study analyses the affective profiles of visual content related to adolescent suicide and prevention on Instagram using affective artificial intelligence. A total of 283 images from public profiles were examined by inferring sentiment, dominant emotion, and emotional intensity from textual elements embedded within the images. Results indicate a clear predominance of neutral sentiment and a gradual increase in positive sentiment, particularly in professional and institutional accounts, with limited presence of negative content. Findings provide relevant insights for the ethical design of preventive digital messages targeting adolescents.

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1. Introduction

During adolescence, suicide is a phenomenon that disrupts young people's lives and profoundly affects their social environment. Addressing this reality from any perspective is complex, as suicidal behaviour constitutes a major public health concern whose prevalence increases across developmental stages.

Suicide sometimes perceibed as an escape route from overwhelming psychological and emotional distress. There are risk factors that can have a negative influence, such as those linked to the individual's environment, whether family or social, and even mental disorders (Ávila et al., 2024). In this regard, it is worth considering the role of communicative contexts, such as the digital environment, where realities that generate emotional distress are displayed and adolescents are exposed to content about suicide and mental health.

Social media is part of the digital context. It is becoming increasingly important because it offers not only preventive messages and awareness-raising resources, but also narratives of suffering. Much of the information circulating in these digital spaces is produced by non-professionals. Sometimes the conversations generated around these resources lead to an exchange of information that promotes an atmosphere that has a negative impact on the most vulnerable people with suicidal ideation (López, 2020).

The purpose of this work is to contribute to this field of study, based on the analysis of affective profiles inferred from visual content on adolescent suicide through the Instagram platform. An observational and exploratory approach is adopted to analyse public images on this network using affective artificial intelligence tools.

The originality of this study lies in its methodological approach, which is based on the automated analysis of visual content, centred on affective profiles. This approach will provide an in-depth understanding of the emotional context derived from the visual content to which the adolescent population is exposed, providing empirical evidence for the design of preventive messages.

2. Adolescence, emotional vulnerability and suicidal behaviour

Adolescence is a developmental stage characterised by heightened individual vulnerability. This vulnerability derives from profound cognitive, affective and social changes. It involves a special sensitivity to context, leading to opportunities for growth as well as greater psychological risks. Currently, with the impact of technology, this vital process is influenced by the digital environment, generating new forms of emotional exposure through the visual content available on the network.

During adolescence, processes such as the search for meaning in life and even the development of one's own personal identity or self-concept (Pérez-Torres, 2024) intensify, resulting in heightened reactivity to emotional and social stimuli.

Visual content linked to psychological distress, suicide, or despair takes on special relevance when interacting with the developmental processes characteristic of adolescence (Raiziene et al., 2022). It is essential to analyse the emotional charge of this visual content in order to measure its impact on the adolescent population.

From a neurodevelopmental perspective, adolescence is characterised by asynchronous brain development between the systems linked to emotional reactivity and those responsible for cognitive development and behavioural self-regulation. This desynchronisation generates an imbalance that translates into impulsive reactions without anticipation of possible consequences. In addition, adverse experiences characterised by stress that occur in the environment play an important role, potentially affecting aspects such as memory or emotional regulation itself. Therefore, adolescent brain maduration is a complex neurodevelopmental process requiring careful interpretation of behavioural manifestations (Serrano-Martínez and Juaneda, 2025).

Therefore, as highlighted, this emotional vulnerability is influenced by the digital environment. Adolescents represent one of the social groups most exposed to visual content on digital platforms such as social media. Reviews show that, at this stage, repeated exposure to negative visual

content is associated with increasing levels of psychological and emotional distress (Odgers and Jensen, 2020).

From this perspective, it is pertinent to reflect on the emotional burden of visual content associated with suicide, identifying profiles on social media that share preventive images and narratives of despair, which impact adolescents' sensitivity to emotional and symbolic stimuli.

3. Adolescent suicide: risk factors and preventive strategies

Adolescent suicide is a multifactorial phenomenon, including mental health problems (depression or anxiety), factors related to the social and family environment, and even academic factors.

Adolescents face daily challenges that can affect them emotionally, such as educational pressure, the search for identity, substance abuse, low self-esteem, etc. The lack of emotional support in this scenario turns these situations into real risk factors for suicide (Jiménez and Jaramillo-Zambrano, 2025).

According to the World Health Organization (WHO, 2025), suicide is the third leading cause of death among people aged 15 to 29, with more than 720,000 people dying by suicide. This alarming situation highlights the need to identify risk factors and protective factors in order to reduce this incidence.

In this regard, from the perspective of adolescent suicide prevention, the key lies in identifying these risk factors. In many cases, the lack of communication about suicidal thoughts, given the social stigma associated with them, as well as the lack of tools to address emotional disorders, contribute significantly to the social isolation of adolescents. Carbón et al. (2025), in their study on adolescent suicide, highlight the main risk factors and strategies for addressing the social problem of adolescent suicide. The identified risk factors that increase the vulnerability of adolescents are:

> Mental disorders. Depression, anxiety, and stress lead to emotional dysregulation, which increases the likelihood of suicidal thoughts. This difficulty in regulating emotions increases the risk.
>
> Abuse and trauma. Physical, sexual or emotional abuse, whether in childhood or adolescence, is linked to suicide in the post-puberty stages, resulting from post-traumatic stress.
>
> Bullying. Bullying in school settings, as well as cyberbullying, amplifies despair, insecurity and low self-esteem in adolescents, leading to suicide risks.
>
> Social isolation. Experiencing social exclusion, disconnection or hopelessness is common among those who do not feel supported by an adequate social network, increasing suicidal thoughts.
>
> Family factors. Teenagers who come from dysfunctional families, with experiences derived, for example, from situations of domestic violence, are at greater risk of suicide.
>
> Impact of social media. Inappropriate use of social media such as Instagram or TikTok is associated with increased personal dissatisfaction among adolescents, causing social and emotional problems that lead to greater vulnerability to suicide.

According to Carbón et al. (2025), the following strategies for preventing adolescent suicide are particularly noteworthy:

- School interventions. School environments should include awareness-raising initiatives to combat the stigma surrounding issues such as suicide, develop coping skills, and promote mental health.
- Psychological therapy and psychosocial support. Cognitive-behavioural therapy is particularly effective in addressing suicidal thoughts in adolescents, helping them to identify thought patterns and develop coping strategies as part of the process.

The identification of risk factors and preventive strategies for adolescent suicide shows that suicide risk cannot be analysed exclusively from an individual perspective, but must take into account the social and symbolic contexts in which adolescents live their daily lives.

In this sense, the digital environment represents a space for emotional expression and socialisation. However, continued exposure to inappropriate content related to suicide and represented through visual content increases emotional vulnerability at this stage of development. Consequently, it is essential to analyse the visual content of the digital environment from a pedagogical perspective of adolescent mental health.

4. Digital environment, affective AI and adolescent mental health

Social media is one of the main contexts for socialisation among adolescents, providing access to information and spaces for emotional expression. Analysing the digital environment is key to understanding its influence on adolescent mental health, as its impact should not be interpreted exclusively in terms of risks or benefits, but rather as a complex phenomenon that influences the vulnerability inherent in adolescence (Odgers and Jensen, 2020).

At the socio-educational level, there is concern about constant connectivity and the harm it can cause to adolescents' mental health. During adolescence, sensitivity to social and symbolic stimuli is greater, and when combined with overexposure to digital content on social media, this may create conditions conducive to emotional overload.

This emotional exposure influences their affective states, their emotional regulation process, and their perception of their own psychological well-being.

Some studies have shown that the use of digital platforms such as social media as tools for social comparison and exposure to negative content is linked to higher levels of emotional distress, depressive symptoms, anxiety, and suicidal ideation in adolescents (Twenge et al., 2018).

Adolescents not only express their experiences through digital platforms, but also consume the emotional experiences of others. Studies show that emotional states can be transmitted through digital content, even when there is no direct interaction, thus supporting the existence of emotional contagion processes through these online environments (Kramer et al., 2014).

In this context, affective computing emerged from the need to detect and model individuals' emotional states in order to advance technologically. Progress is being made in devices and tools capable of recognising, interpreting and replicating human emotions. In educational contexts, these advances focus on offering a more personalised learning experience (Bosquez et al., 2018).

This recognition of emotions is more effective when done multimodally, that is, with a combination of various media. This is possible with the recognition of visual, auditory and physiological data, among others (D'mello and Kory, 2015). In addition, several studies have shown that the very textuality of a message can convey specific emotional states and that its analysis allows emotions and attitudes to be inferred directly from words and linguistic constructions used in digital content (Huan et al., 2022).

In this regard, artificial intelligence offers new methodological horizons for evaluating emotional content in digital environments. It also facilitates the study of large volumes of data, including images and videos, enabling sensitive analyses such as those of information on adolescent suicide available online.

Images in the digital environment are highly relevant, as they have a great capacity to evoke emotional responses without the need for significant cognitive mediation. Some systematic reviews (Keles et al., 2020) have determined that this repeated exposure to negative visual content on social media has an implicit emotional charge that is harmful to adolescents' mental health. Keles et al. (2020) found that time spent on social media, activity on social media, and possible addiction to social media were clearly correlated with depression, anxiety, and psychological distress.

Linked to self-destructive behaviour, the digital environment is a space with multiple messages of various kinds, focusing on preventive content, testimonials and even problematic representations of emotional suffering. Certain patterns of exposure to this content related to self-

harm and suicide are associated with an increased risk of self-harm in emotionally vulnerable young people, especially when it is not preventive in nature (Marchant et al., 2017).

Overall, the available bibliographic evidence allows us to conceptualise the digital environment as a complex emotional context, shaped by risk factors and protective factors for adolescent suicide. Analysing the emotional impact of content is key to designing preventive and ethically responsible strategies to contribute to the emotional well-being of adolescents.

5. Objectives

The growing circulation of visual content related to suicide and its prevention on social media raises questions about the type of emotional load to which adolescents are exposed in everyday digital environments. Instagram has established itself as a space for disseminating preventive messages, narratives of emotional distress, and awareness-raising resources.

The affective characteristics of the visual content disseminated condition the impact of the posts. In this context, the primary objective of this study is:

- To analyse the affective profiles inferred through affective artificial intelligence tools in Instagram visual content related to adolescent suicide prevention and narratives associated with suicidal ideation.

The ultimate purpose is to identify predominant emotional patterns that can be considered potentially protective or, conversely, associated with heightened emotional vulnerability in the digital visual environment. Specifically, the specific objectives of this work are:

- To describe the general sentiment of the visual content analysed (positive, neutral, or negative).
- To identify the dominant emotions inferred from the text present in the images.
- To analyse the emotional intensity of the content disseminated.
- To explore the distribution of these affective profiles according to relevant contextual variables, such as the source hashtag, the type of account posting, the preliminary narrative of the message, and the presence of explicit help information.

Based on these analyses, the aim is to provide empirical evidence that will contribute to the design of more balanced, effective and ethically responsible preventive visual messages aimed at the adolescent population.

6. Method

6.1. Study design

An observational, cross-sectional, computational study was conducted, based on the automated analysis of visual content from a publicly accessible social network.

The study follows the digital content analysis methodologies applied to mental health research, incorporating affective artificial intelligence tools as an instrument of emotional inference.

From a communicative perspective, the analysis focuses on the affective tone of the visual message, understood as a resource for emotional framing and not as a measure of the recipient's emotional experience. Consequently, the study focuses on the affective characteristics of the content disseminated rather than evaluating the direct psychological impact on audiences.

The study worked exclusively with posts available on public Instagram profiles. Consequently, the design complies with the ethical principles of research with open-access digital data and minimises any risk to third parties.

6.2. Sample

The sample consisted of individual visual posts disseminated on Instagram and explicitly related to adolescent suicide and its prevention. The unit of analysis was each published image, regardless of the number of associated interactions or the size of the potential audience.

The material was selected through a systematic search using nine predefined hashtags in Spanish, all directly linked to suicide prevention, suicidal ideation, or mental health in adolescents. The hashtags used were:

- #autolisis
- #depresionadolescente
- #hablarsalva
- #prevenciondelsuicidio
- #prevenciondelsuicidioadolescente
- #prevencionsuicidioadolescente
- #saludmentaladolescente
- #stopsuicidios
- #suicidioadolescente

Priority was given to the use of hashtags that were specific enough to ensure the thematic relevance of the content, but frequent enough to allow for a broad and diverse sample to be obtained.

The following inclusion criteria were established:

- Publicly accessible posts
- Visual content explicitly related to suicide, suicide prevention, or adolescent mental health
- Publications tagged with any of the selected hashtags.

Generic content on emotional wellbeing without a clear thematic reference, duplicate posts, and materials without relevant informational or narrative content were excluded.

The final sample consisted of N = 283 images, published between 2020 and 2026, from accounts of various types (institutional, informative/professional, and non-professional).

This sample size is adequate for descriptive and comparative analyses in digital content studies and allows for the identification of consistent affective patterns in the visual environment analysed.

6.3. Instruments and variables

A structured data extraction matrix was developed in Microsoft Excel for data collection, in which descriptive and contextual variables corresponding to each image included in the sample were systematically recorded.

These variables included the source hashtag, the year of publication, the number of interactions (likes), the type of account issuing the content, the preliminary narrative of the content, the presence of text in the image, the literal text contained in the image, the presence of helpful information (telephone numbers and/or links), as well as other relevant visual elements, such as the number of people represented, the dominant colour palette, identifiable visual symbols, and the text accompanying the image. These variables allowed the analysed content to be contextualised and subsequently facilitated cross-referencing with the inferred affective profiles.

The analysis of the affective dimension of the content was carried out using an affective artificial intelligence tool based on natural language processing (NLP), specifically the iWeaver AI platform. This tool was applied exclusively to the text present in the images (infographics, written messages and visual textual elements), given that a significant proportion of the sample lacked representations of people or facial expressions to be analysed.

iWeaver AI uses language models trained for the automated identification of emotional polarity and affective categories from text, allowing content to be classified according to three main affective variables: general sentiment (positive, neutral or negative), dominant emotion and level of emotional intensity (low, medium or high). However, like all automated sentiment analysis systems, its inferences are probabilistic and dependent on the training corpus. The system generates these inferences from semantic and contextual analysis of language, without direct human intervention in the emotional coding process.

The choice of this tool was based on several methodological reasons:

- Suitability for analysing large volumes of short, fragmentary text, characteristic of visual content on social media.
- Specific focus on affective and sentiment analysis, aligned with the objectives of the study.
- Possibility of applying the analysis systematically and uniformly to the entire corpus.
- Accessibility via a web interface, which facilitates the replicability of the procedure without the need for complex technical installations.

Artificial intelligence was used as an affective coding tool, with the aim of reducing the subjectivity inherent in manual coding and minimising researcher bias in the assignment of emotional categories.

The results obtained using iWeaver AI were subsequently incorporated into the data matrix and treated as categorical variables for descriptive and comparative statistical analysis.

Following methodological recommendations in studies using automated affective analysis systems, the results were interpreted as inferred indicators of the emotional tone of the content, and not as direct representations of the emotional state of users, thus respecting the epistemological limits of the use of AI in social, educational, and psychological research.

6.4. Procedure

The procedure was carried out in several phases. First, a systematic search of Instagram posts was conducted using the selected hashtags, accessing only public content. Images that met the inclusion criteria were manually recorded in the data matrix, along with their contextual and descriptive variables.

In a second phase, the text present in each image was extracted and analysed using the selected affective AI tool. The results of the emotional analysis were reviewed and organised by assigning each image its corresponding sentiment values, dominant emotion and emotional intensity.

Finally, the complete database was cleaned and prepared for analysis using pivot tables, which allowed descriptive frequency analyses to be performed and the distribution of affective profiles to be explored based on the contextual variables collected.

7. Results

The analysis of the 283 visual-textual contents on adolescent suicide published on Instagram shows a clear predominance of a neutral emotional tone (n = 164; 57.9%), followed by contents with positive sentiment (n = 104; 36.7%). Messages with negative sentiment are in the minority (n = 11; 3.9%), as are those categorised as mixed (n = 4; 1.4%).

The distribution of emotional categories is markedly asymmetrical. Neutral and positive content accounts for more than 94% of total posts, while messages with explicit negative connotations are practically residual. From a communicative perspective, this imbalance suggests the presence of a discursive strategy aimed at emotional restraint, avoiding potentially disturbing narratives on a highly sensitive topic such as adolescent suicide.

Table 1. General distribution of sentiment

Sentiment	
Mixed	4
Negative	11
Neutral	164
Positive	104
Grand total	**283**

Source: Own elaboration

7.1. Sentiment based on the source hashtag

The analysis of inferred sentiment based on the source hashtag shows significant differences in the emotional charge of visual content, associated with the narrative framing implicit in each tag. This

variability suggests that the use of the hashtag itself acts as a semantic-emotional marker of the content disseminated (Table 2).

Table 2. Distribution of inferred sentiment based on the source hashtag

Hashtags /Sentiment	Mixed	Negative	Neutral	Positive	Total
#autolisis	0	0	5	0	5
#depresionadolescente	0	0	26	7	33
#hablarsalva	1	0	2	8	11
#prevenciondelsuicidio	1	0	26	36	63
#prevenciondelsuicidioadolescente	0	1	12	3	16
#prevencionsuicidioadolescente	0	1	23	12	36
#saludmentaladolescente	1	0	35	12	48
#stopsuicidios	1	3	12	9	25
#suicidioadolescente	0	6	23	17	46
Grand total	**4**	**11**	**164**	**104**	**283**

Source: Own elaboration

Overall, the set of publications analysed (N = 283) shows a predominance of content classified as neutral (57.9%), followed by positive (36.7%), while negative (3.9%) and mixed (1.4%) content represent a minority proportion. However, this general distribution varies substantially depending on the hashtag used.

Hashtags explicitly focused on prevention show a higher proportion of positive sentiment, along with a clear reduction in negative content.

In particular, #prevenciondelsuicidio (n = 63) concentrates 57.1% of positive content (36 posts) and 41.3% of neutral content (26 posts), with a residual presence of mixed sentiment (1.6%) and an absence of negative sentiment. A similar pattern is observed in #hablarsalva (n = 11), where 72.7% of the content is classified as positive and 18.2% as neutral, reinforcing its clear focus on messages of support and encouraging people to seek help.

For their part, #prevencionsuicidioadolescente (n = 36) and #prevenciondelsuicidioadolescente (n = 16) maintain a predominantly neutral profile (63.9% and 75.0%, respectively), although with a significant proportion of positive content (33.3% and 18.8%) and a minimal presence of negative sentiment (≤ 6%). These results suggest a more informative and educational approach, with less explicit emotional charge, but aligned with responsible prevention strategies.

In contrast, hashtags associated with specific issues or more clinically charged narratives present a different affective profile. The hashtag #depresionadolescente (n = 33) is characterised by a high proportion of neutral content (78.8%), combined with 21.2% positive content and an absence of posts classified as negative. This pattern points to a predominantly psychoeducational treatment of the topic, with an emphasis on information and the normalisation of distress.

However, hashtags such as #suicidioadolescente (n = 46) and #stopsuicidios (n = 25) show a relative increase in negative sentiment. In the case of #suicidioadolescente, 13.0% of the content is classified as negative, along with 50.0% neutral and 37.0% positive. In #stopsuicidios, the proportion of negative sentiment rises to 12.0%, coexisting with 48.0% neutral content and 36.0% positive content. These hashtags therefore present a more heterogeneous affective profile, with a greater presence of alarmist messages or direct problematisation.

The hashtag #autolisis (n = 5) stands out for concentrating exclusively on neutral content, suggesting restricted and possibly more technical or descriptive use, without a marked explicit emotional charge, although its low frequency prevents robust conclusions from being drawn.

From a comparative perspective, preventive hashtags show a moderate-high positive narrative effect, increasing the proportion of content with positive sentiment by 20 to 35 percentage points compared to hashtags focused on the problem. In contrast, hashtags directly associated with

suicide or its prevention present a mild risk narrative effect, characterised by greater emotional dispersion and a significant presence of negative sentiment.

These results indicate that hashtags do not act solely as thematic descriptors, but also as emotional framing devices capable of modulating the affective tone of visual content disseminated on Instagram. The choice of hashtag therefore emerges as a key strategic element in the design of visual messages on adolescent suicide prevention.

7.2. Sentiment according to the type of issuing account

When examining sentiment by account type, systematic differences are observed in the proportion of positive and negative messages, pointing to a modulating effect of the sender on the emotional tone of the content (Table 3).

Table 3. Sentiment - account type

Account type	Mixed	Negative	Neutral	Positive	Grand total
Informative/professional	2	5	99	59	165
Institutional/official	1	2	33	19	55
Non-professional	1	4	32	26	63
Grand total	**4**	**11**	**164**	**104**	**283**

Source: Own elaboration

Informative or professional accounts (n = 165) show a clear predominance of neutral sentiment (n = 99; 60.0%), followed by positive sentiment (n = 59; 35.8%). Negative (n = 5; 3.0%) and mixed (n = 2; 1.2%) messages are clearly marginal. This profile suggests communication focused on psychoeducation and the transmission of information, with conscious regulation of emotional impact.

In institutional or official accounts (n = 55), the pattern is similar, although with a slightly higher proportion of neutrality: 60% of the content is neutral (n = 33), and 34,5% is positive (n = 19). Negative (n = 2; 3.7%) and mixed (n = 1; 1.9%) content maintain a token presence.

In contrast, non-professional accounts (n = 63) show a less emotionally restrained distribution. Although neutral sentiment continues to be in the majority (n = 32; 50,8%), the proportion of positive content decreases slightly (n = 26; 39.3%) and that of negative content increases (n = 4; 6.6%), approximately doubling the proportion observed in professional and institutional accounts.

This relative increase in negative sentiment in non-professional accounts, although limited in absolute terms, constitutes a relevant effect at the communicative level, as it indicates greater negative emotional expression when discourse is not mediated by professional or institutional criteria.

7.3. Sentiment and presence of helpful information

The intersection between sentiment and the presence of helpful information (telephone numbers, links, or both) reveals one of the most theoretically relevant findings of the study (Table 4).

Table 4. Sentiment - helpful information

Sentiment / Helpful information	Mixed	Negative	Neutral	Positive	Overall total
Links	/	/	7	4	11
No	3	9	136	79	227
Telephone numbers	1	2	19	18	40
Telephone numbers and links	/	/	2	3	5
Grand total	**4**	**11**	**164**	**104**	**283**

Source: Own elaboration

Most publications do not include any explicit support resources (n = 227; 80,2%). Within this group, content with neutral (n = 136; 59,9%) and positive (n = 79; 34,8%) sentiment predominates, while negative (n = 9; 4.0%) and mixed (n = 3; 1.3%) sentiment remain in the minority.

In contrast, content that does include helpline numbers (n = 40) has a different emotional distribution: 47,5% is neutral (n = 19) and 45% is positive (n = 18), with virtually no negative sentiment (2,5%). Messages that include both telephone numbers and links (n = 5) focus exclusively on neutral and positive feelings.

From a narrative point of view, these data show a clear disconnect between preventive tone and resource activation: even when the message is positive, the probability of it including help information remains low. This pattern suggests that preventive discourse on Instagram relies more on the emotional climate than on direct guidance to seek help, which may limit its actual preventive effectiveness.

7.4. Evolution of sentiment over time (2020-January 2026)

The analysis of sentiment by year of publication shows a clear evolution over the period studied (Table 5).

Between 2020 and 2022, more than 65% of the content is concentrated in neutral sentiment, with a still limited presence of positive messages. From 2023 onwards, there is a sustained increase in positive sentiment, peaking in 2025, when positive content represents 43.8% of the annual total (57 out of 130 posts).

Negative sentiment consistently remains below 5% in all the years analysed, with no significant peaks, reinforcing the idea of a stable communicative norm of avoiding negative tones when discussing adolescent suicide on social media.

Table 5. Sentiment - year of publication of content

Year of publication	Mixed	Negative	Neutral	Positive	Total
2020	/	/	9	5	14
2021	/	1	6	1	8
2022	/	1	23	5	29
2023	/	3	23	8	34
2024	1	2	32	16	51
2025	3	4	66	57	130
2026	/	/	5	12	17
Grand total	**4**	**11**	**164**	**104**	**283**

Source: Own elaboration

This gradual shift towards more positive messages in the years following the pandemic can be interpreted as a discursive adjustment of the digital ecosystem in response to the documented increase in mental health problems among adolescents, prioritising narratives of hope and prevention over alarmist approaches.

7.5. Main findings

Overall, the results show that communication about adolescent suicide on Instagram is characterised by:

- A clear predominance of neutral sentiment, especially in professional and institutional accounts.
- A growing use of positive sentiment in recent years.
- A low presence of negative sentiment, regardless of account type or year.
- A low incorporation of helpful information, even in messages with a positive or preventive tone.

These patterns raise important questions about the actual preventive effectiveness of this type of content and open the door to future research that analyses not only the emotional tone, but also its impact on adolescents' perception, identification and behaviour.

8. Discussion

The findings of this study characterise the affective load of visual content available on Instagram, linked to adolescent suicide and considering its preventive nature. Neutrality emerges as the dominant communicative pattern, especially that shared by professional and institutional accounts. This reality reflects a communication strategy focused on emotional restraint and the transmission of information on a sensitive social issue.

However, affective classification should be interpreted as a characteristic of the content and not as a direct indicator of the psychological impact or preventive effect on adolescents, as these effects depend on individual, developmental, and contextual variables not addressed in this study.

From this perspective, the results provide information on the emotional tone of the digital visual environment, but do not allow causal inferences to be made about the emotional experience of the recipients. The low percentage of content with negative sentiment, even in hashtags directly linked to suicide, reinforces the idea of an implicit communication norm aimed at avoiding potentially disturbing narratives.

This finding is consistent with international recommendations on the media treatment of suicide, which warn of the risk of adopting sensationalist or overly alarmist approaches. The influence of the media is an important issue that should not be overlooked, as providing irresponsible information can lead to the potential triggering of suicidal behaviour, reducing the protective effect that media such as social networks should have by offering quality information (Sisask and Värnik, 2012).

Complementarily, an increase in positive sentiment is observed throughout the period analysed, although this does not imply a greater presence of support resources for the adolescent population. This fact highlights an imbalance between the initial objective of the message, which follows a positive emotional tone, and the lack of existing suicide prevention and support resources.

This progressive increase, particularly evident in the post-pandemic period, suggests an adaptation of the communication approach in response to the rise in mental health problems among adolescents. In this regard, we highlight the role of the so-called *Papageno* effect, i.e., the impact of media content related to suicide in acting as a preventive effect, presenting potentially protective information and reducing sensationalist information (Niederkrotenhaler et al., 2018).

However, the data also reveal a disconnect between positive emotional tone and the explicit inclusion of support resources, raising important questions about the actual preventive effectiveness of this content in digital contexts.

9. Conclusions

This study concludes that visual content related to adolescent suicide and its prevention disseminated on Instagram generally presents a restrained affective profile, predominantly neutral and progressively more positive in recent years. This pattern is more clearly observed in professional and institutional accounts, suggesting a more regulated management of the message's emotional impact.

These findings are particularly relevant for the design of psychoeducational materials and prevention campaigns aimed at adolescents, as the emotional tone of the visual message emerges as a key element in promoting the reception of content without increasing emotional distress or psychological discomfort at a particularly vulnerable stage of development.

Likewise, the variability detected depending on the type of issuing account, the hashtag used, and the presence of support resources provides useful empirical criteria to guide more effective and ethically responsible preventive communication strategies in digital environments.

From a methodological perspective, this study demonstrates the usefulness of affective artificial intelligence for the systematic analysis of visual content on social networks such as

Instagram. This analysis allows the emotional climate of the content to be described, following an ethical approach to research on adolescent suicide.

Several limitations must be acknowledged. On the one hand, the analysis developed focuses exclusively on a single digital platform, limiting generalisation to other digital environments. On the other hand, emotional inference is based on the text present in the selected images, evaluating the emotional charge inferred in the visual environment, but not the actual impact of the content on adolescents.

Future research could consider comparing different digital platforms, assessing the impact of content found on the mental health of the adolescent population, and conducting reception studies to further explore the relationship between affective tone, message perception, and preventive behaviour.

References

Ávila Granda, L. E., Moreno Guerra, M. M., and Guacho Aucancela, L. (2024). Adolescent suicide: A latent problem in Latin America. Literature review. *Ciencia Latina: Revista Multidisciplinar, 8*(1), 12013–12030.

Bosquez, V., Sanz, C., Baldassarri, S. S., Ribadeneira, E., Valencia, G., Barragán Arnal, R., Camacho, Á., Shauri Romero, J., and Camacho Castillo, L. A. (2018). Affective computing: Emotions, technologies, and their relationship with virtual education. *TALENTOS Research Journal, 5*(1), 94–103.

Carbón Sandoval, A., Clemente Martínez, L., Giménez Gil, L., López Suárez, S., Moreno Lambea, C., & Sánchez Rueda, P. (2025). Adolescent suicide: Risk factors and prevention strategies. *Health Research Journal, 6*(5).

D'mello, S. K., & Kory, J. (2015). A Review and Meta-Analysis of Multimodal Affect Detection Systems. *ACM Computing Surveys, 47*(3), 1–36. https://doi.org/10.1145/2682899

Huan, J. L., Sekh, A. A., Quek, C., et al. (2022). Emotionally charged text classification with deep learning and sentiment semantic. Neural Computing and Applications, 34(8), 2341–2351. https://doi.org/10.1007/s00521-021-06542-1

Jiménez, T., and Jaramillo-Zambrano, A. E. (2025). Life satisfaction and suicide risk in adolescents. *Psicología UNEMI, 9*(16), 29–39.

Keles, B., McCrae, N., & Grealish, A. (2020). A systematic review: the influence of social media on depression, anxiety, and psychological distress in adolescents. *International Journal of Adolescence and Youth*, *25*(1), 79–93. https://doi.org/10.1080/02673843.2019.1590851

Kramer, A. D. I., Guillory, J. E., & Hancock, J. T. (2014). Experimental evidence of massive-scale emotional contagion through social networks. *Proceedings of the National Academy of Sciences of the United States of America, 111*(24), 8788–8790. https://doi.org/10.1073/pnas.1320040111

López Martínez, L. F. (2020). Suicide, adolescence, social networks, and the internet. *Norte de Salud Mental, 17*(63).

Marchant A, Hawton K, Stewart A, Montgomery P, Singaravelu V, Lloyd K, et al. (2017) A systematic review of the relationship between internet use, self-harm and suicidal behaviour in young people: The good, the bad and the unknown. *PLoS ONE, 12*(8): e0181722. https://doi.org/10.1371/journal.pone.0181722

Niederkrotenthaler, T., Voracek, M., Herberth, A., Till, B., Strauss, M., Etzersdorfer, E., & Sonneck, G. (2010). Role of media reports in completed and prevented suicide: Werther versus Papageno effects. *British Journal of Psychiatry*, *197*(3), 234–243. doi: 10.1192/bjp.bp.109.074633

Odgers, C. L., & Jensen, M. R. (2020). Annual research review: Adolescent mental health in the digital age: Facts, fears, and future directions. *Journal of Child Psychology and Psychiatry, 61*(3), 336–348. https://doi.org/10.1111/jcpp.13190

World Health Organisation. (2025, 25 March). *Suicide* [Fact sheet]. https://www.who.int/es/news-room/fact-sheets/detail/suicide

Pérez-Torres, V. (2024). Social networks: a digital social mirror for identity development during adolescence. *Curr Psychol,* 43, 22170–22180. https://doi.org/10.1007/s12144-024-05980-z

Raiziene, S., Erentaite, R., Pakalniskiene, V., Grigutyte, N., & Crocetti, E. (2022). Patterns of identity formation and online activities in adolescence. *Identity*, *22*(2), 150–165. https://doi.org/10.1080/15283488.2021.1960839

Serrano-Martínez, C., and Juaneda Ayensa, E. (Eds.). (2025). *Adolescence and comprehensive health: Biopsychosocial and community foundations for intervention* (1st ed.). University of La Rioja.

Sisask, M., & Värnik, A. (2012). Media Roles in Suicide Prevention: A Systematic Review. *International Journal of Environmental Research and Public Health, 9*(1), 123–138. https://doi.org/10.3390/ijerph9010123

Twenge, J. M., Joiner, T. E., Rogers, M. L., & Martin, G. N. (2017). Increases in depressive symptoms, suicide-related outcomes, and suicide rates among U.S. adolescents after 2010 and links to increased new media screen time. *Clinical Psychological Science, 6*(1), 3–17. https://doi.org/10.1177/2167702617723376