# Optimizing Health Communication on Social Media

## The Role of Creative Elements

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## Introduction

- TikTok is an increasingly important platform for public health messaging, especially among younger audiences.
- Traditional frameworks (e.g., DISCERN) focus on accuracy, but methods to optimize engagement are less studied.
- This study developed the AIDAA framework (Attention, Interest, Desire, Action, Aesthetic) to evaluate how creative elements drive engagement.

## Methods

**SAMPLE:** 80 TikTok videos from health-focused accounts (”Medfluencers"), selected using neutral search terms on a new account to minimize bias.

**ENGAGEMENT RATE:** Calculated as (Likes + Comments + Shares + Saves) ÷ Views.

**AIDAA FRAMEWORK:** A novel rubric rating five creative elements from 0–5 each with total score out of 25 (Fig. 1):

- **Attention:** Capturing viewers' interest in the first few seconds.
- **Interest:** Sustaining engagement beyond the opening.
- **Desire:** Building emotional connection and credibility.
- **Action:** Prompting specific behaviors or next steps.
- **Aesthetic Appeal:** Visual and production quality.

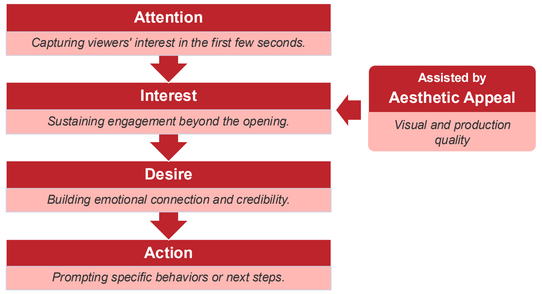



**Figure 1:** AIDAA framework outlining creative factors that influence engagement with health-related TikTok videos.

## Methods (continued)

**SCORING:** Seven independent reviewers rated each video based on the AIDAA rubric.

**FINAL SCORES:** Median values across reviewers were used for each AIDAA component.

**STATISTICAL ANALYSIS:** Spearman’s rank correlation assessed the relationship between AIDAA scores and engagement rates. Significance threshold set at $p < 0.05$.

**Table 1. Summary of Baseline Engagement and AIDAA Scoring Metrics**

| | |
|---|---|
| Mean Engagement Rate (%) | 3.99% |
| Range of Engagement Rate (%) | 0.58% – 9.78% |
| Mean AIDAA Total Score | 16.5 (out of 25) |
| Mean Attention Score | 3.7 (out of 5) |
| Mean Interest Score | 3.6 (out of 5) |
| Mean Desire Score | 2.9 (out of 5) |
| Mean Action Score | 3.0 (out of 5) |
| Mean Aesthetic Appeal Score | 3.3 (out of 5) |

## Results

- Mean Engagement Rate: 3.99% (range 0.58%–9.78%).
- Mean AIDAA Score: 16.5 out of 25.
- Higher AIDAA scores moderately correlated with higher engagement ($\rho = 0.503$, $p < 0.05$).
- Interest, Desire, Action, and Aesthetic Appeal each showed significant correlations with engagement.

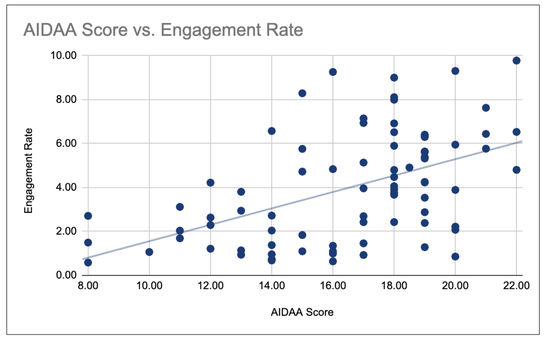



**Figure 2:** Scatterplot demonstrating the relationship between AIDAA score and TikTok engagement rate.

**Table 2. Correlation of AIDAA Components with Engagement**

| Comparison | Spearman’s ρ | Significant ($p < 0.05$)? |
|---|---|---|
| AIDAA Score vs Engagement | 0.503 | Yes |
| Attention vs Engagement | 0.106 | No |
| Interest vs Engagement | 0.278 | Yes |
| Desire vs Engagement | 0.464 | Yes |
| Action vs Engagement | 0.435 | Yes |
| Aesthetic Appeal vs Engagement | 0.427 | Yes |

## Conclusion

- Creative elements significantly influence engagement with health-related TikTok videos.
- Interest, Desire, Action, and Aesthetic Appeal were each significantly associated with higher engagement, while Attention alone was not.
- Focusing solely on factual accuracy may be insufficient; creative strategies are critical for optimizing health communication reach and impact.
- The AIDAA framework offers a practical tool for evaluating and improving the creative design of social media health messaging.
- Results may be influenced by TikTok’s algorithmic factors or the subjective nature of scoring creative elements.
- Future work should explore how creative elements influence behavior change beyond initial engagement.
- Broader validation of the AIDAA framework across different social media platforms is warranted.

## References

1. Chavda J. Pew Research Center, 2024.
2. Neiger BL et al. Health Promotion Practice, 2012.
3. Kirkpatrick CE, Lawrie LL. JMIR Infodemiology, 2024.

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