



Effects of message framing and video remix on health misinformation correction using short video applications

Rachel Hoi Yan Au ¹

 0000-0002-0466-7748

Qiuyi Kong ^{2,3}

 0000-0002-9925-139X

Yunya Song ⁴

 0000-0001-5159-1689

Ruqing Chen ¹

 0009-0009-5174-6068

Kelly Yee Lai Ku ^{1*}

 0000-0001-6592-1941

¹ Hong Kong Baptist University, Hong Kong SAR, CHINA

² Bay Area School of Applied Psychological Sciences, Beijing Normal University at Zhuhai, Zhuhai, CHINA

³ Beijing Key Laboratory of Applied Experimental Psychology, National Demonstration Center for Experimental Psychology Education (Beijing Normal University), Faculty of Psychology, Beijing Normal University, Beijing, CHINA

⁴ The Hong Kong University of Science and Technology, Hong Kong SAR, CHINA

* Corresponding author: kellyku@hkbu.edu.hk

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ABSTRACT

Short video applications (SVAs) have become prominent health information sources for adolescents, where they actively seek, share, and learn about health information. These platforms host diverse health information and provide an environment where misinformation is particularly “sticky,” especially around stigmatized issues such as eating disorders (ED), which are highly visible among adolescents. Misconceptions regarding ED, such as framing restrictive eating as lifestyle choices or failing to recognize ED in men, pose significant health risks for a vulnerable age group. Addressing health misinformation in these digital environments is critical, yet communication research has yet to establish effective correction strategies tailored to SVAs. This study examined the efficacy of remix videos that pair corrections with ED misinformation to counter related misconceptions on SVAs. Using a 2 × 2 + 1 experimental design, we tested 294 Chinese adolescents aged 15-17 who viewed either an ED misinformation-only video or remix correction videos that visually combined misinformation with rebuttals using platform remix tools. Remix corrections varied by message framing (fact-based vs. narrative-based) and remix format (sequential “stitch” vs. side-by-side “duet”). We measured cognitive, affective, and behavioral outcomes. Videos featuring the lived experience of a male patient were particularly effective in improving attitudes and reducing stigma, especially in side-by-side duet formats, which produced downstream effects on adolescents’ willingness to support peers with ED. Results showed that videos as brief as one minute were sufficient to produce measurable correction outcomes, underscoring the potential of platform-specific remix techniques in combating health misinformation within adolescents’ native digital environments.

Keywords: health misinformation, misinformation correction, eating disorders, social media, short video applications, adolescents

INTRODUCTION

The digital revolution has fundamentally transformed the ways in which people create, share, and respond to information (Clarke, 2012). This transformation has given rise to digital media platforms with distinct affordances that shape how individuals produce, circulate, and evaluate content (McMullan, 2020). These online environments foster diverse and creative forms of interaction, supporting participatory cultures in which users actively co-create and engage with digital content (Kaye, 2022; O'Toole, 2023). Through such participation, users develop meaningful social and emotional connections with one another (Kelty & Erickson, 2018). Within this evolving media ecology, short video applications (SVAs), most exemplified by TikTok, have become especially influential. TikTok's design emphasizes rapid, personalized, and participatory viewing experiences via repeated interaction with short, user-generated videos (Lu et al., 2022; Xu et al., 2023), making it evolve from an entertainment platform into a dominant social space that shapes everyday communication practices, particularly among younger audiences.

Reflecting its cultural and communicative reach, TikTok now attracts over one billion monthly active users worldwide, with more than 30% under the age of 20 (Doyle, 2024). Among adolescents, it has become one of the most frequently used social media platforms, with approximately one in five teens reporting daily, near-constant content consumption (Faverio & Sidoti, 2025). This intense engagement rivals that of more established traditional social networking sites such as Instagram (Anderson & Jiang, 2018), highlighting a broader shift in how young users consume, interpret, and participate in online media environments.

Given the widespread popularity of SVAs among adolescents, many young users turn to the platform to access health-related information. Adolescents do not only passively consume health information on these platforms (Hayes et al., 2020; Taba et al., 2023) but also co-construct it by exchanging ideas and knowledge (Nguyen & Diederich, 2023). Under participatory digital cultures (Denniss & Lindberg, 2025), SVAs enable peer-to-peer health communication where credibility often relies on relatability rather than expertise (Lau et al., 2025). This renders SVAs fertile ground for misinformation. Prior research has documented the prevalence of misinformation across traditional social networking sites and video-streaming platforms (Demuyakor et al., 2021). SVAs similarly harbor false or misleading health information that contradicts scientific evidence (Kirkpatrick & Lawrie, 2024). Users increasingly rely on such unverified content to make health decisions, such as using videos on SVAs to self-diagnose and understand their own mental illnesses (Avella, 2024), posing significant public health challenges (Das et al., 2026).

The characteristics of SVAs further exacerbate the dissemination of health misinformation. SVAs deliver audio-visual content in a fast-paced manner that allows infinite scrolling and constant consumption (Tolorunleke et al., 2025). The ephemeral nature of the content (Xu et al., 2023) creates fears of missing out, encouraging more intensified user engagement (Rifkin et al., 2025). Audio-visual content is often more vivid than content in other modalities, as combining two sensory modalities enhances the sense of realism, believability, and relatability (Sundar, 2008; Sundar et al., 2021). Thus, SVAs encourage rapid peripheral processing more so than traditional social media (Xu et al., 2023), rendering misinformation on these platforms particularly "sticky" (Bhargava et al., 2023). The recommendation algorithm amplifies the problem, as users who begin with neutral health content may be directed towards increasingly extreme or scientifically unfounded content (Blackburn & Hogg, 2024).

Some health topics shared on SVAs are particularly challenging for public health promotion, as their sensitivity and stigma make them especially susceptible to misinformation. The present study focused on a high-risk health topic: eating disorders (ED), including anorexia nervosa, bulimia nervosa, and binge-ED (American Psychiatric Association, 2013). This topic was selected because misinformation about ED damages adolescents' body image, leading to deleterious consequences on their physical and mental health (Georgiou et al., 2025). Content on SVAs often contains misinformation about the causes, symptoms, and treatments of these conditions (Griffiths et al., 2024; Lookingbill et al., 2023). A previous study found that over 35% of analyzed TikTok videos about ED contained misleading claims (Lookingbill et al., 2023). They create misconceptions that present restrictive eating as lifestyle choices (Mond et al., 2006) and that fail to recognize ED in men (Greenberg & Schoen, 2008). Some even explicitly promote unrealistic thinness ideals and encourage disordered eating behaviors (Mento et al., 2021).

ED misinformation on SVAs creates significant barriers to acquiring accurate health information and developing informed attitudes toward mental health conditions. The mixture of authentic and misleading ED information creates cognitive overload, rendering information discernment difficult (van Merriënboer & Ayres, 2005). ED misinformation presented in vivid audio-visual format (Ruiz-Centeno et al., 2025) particularly damages the body image and self-esteem of young users (Georgiou et al., 2025; Mento et al., 2021), increasing their risks for ED (Rohde et al., 2015). This creates an acute public health challenge given that a substantial proportion of SVA users are adolescents (Xu et al., 2023), who are highly vulnerable to the detrimental effects of health misinformation owing to their rapid cognitive and socioemotional development (Ma et al., 2025). Misinformation intervention strategies on SVAs thus become critical for effective public health communication, with researchers calling for ED misinformation corrections that align with the participatory nature in the digital spaces where young people naturally consume health information (Georgiou et al., 2026).

Beyond serving as sources of misinformation, SVAs nonetheless represent promising venues for brief misinformation correction that meet adolescents in their native digital spaces. Past research has established effective strategies for combating misinformation on traditional social networking sites like Facebook, Instagram, and YouTube (Walter & Tukachinsky, 2020), with corrections reducing misconceptions about vaccines (Vraga & Bode, 2018), COVID-19 (Rosenberg et al., 2020), and Mpox (Ku et al., 2025). As digital consumption shifts toward audio-visual media, recent work has begun to isolate the specific efficacy of video-based corrections. SVAs offer opportunities for misinformation interventions that display corrections alongside misinformation (Yang et al., 2019). These brief videos can be shared via algorithmically curated feeds that reach young users in their native digital spaces (Iodice & Papapicco, 2021). Previous work has found that exposure to TikTok misinformation correction videos improved users' ability to distinguish between authentic and false content (Bhargava et al., 2023) and promoted health behaviors (Li et al., 2025).

Extending on prior findings, the current work examined the potential of utilizing the remix tools of SVAs to create correction videos. SVAs offer built-in features that enable users to record their own content alongside an original video as it plays (Vizcaíno-Verdú & Abidin, 2023). Users often employ these features to react to or comment on other user-generated videos (Abidin, 2021), making remix-based interaction a core user experience that represents the native communicative language of SVAs (Zulli & Zulli, 2022). This opens the possibility of using these features for misinformation correction. Unlike traditional correction approaches that present rebuttals in isolation from the original claims, correction videos created through these remix features can situate corrective information directly alongside the misinformation (Sharevski et al., 2025). This connects corrections with the original false content and facilitates co-activation of accurate and inaccurate representations in working memory, supporting knowledge revision (Kendeou & O'Brien, 2014). The platforms' recommendation system further augmented this benefit by algorithmically linking remix correction videos to their source videos. This approach allows corrective content to gain access to the same audience as the original misinformation, helping to solve the persistent problem where corrections typically reach a smaller audience than the original false content (Vosoughi et al., 2018).

In sum, we investigated how correction videos varying in message framing and platform-specific video remix affordances influence their effectiveness in combating ED misinformation, contrasting fact-based corrections with narrative-based messages grounded in lived experiences, either presented after or alongside misinformation. We examined multiple intervention outcomes, including misconception correction, knowledge acquisition, attitude improvement, stigma reduction, peer-support intentions, and content-sharing intentions. Findings contributed evidence-based insights for designing video interventions that use the unique affordances of SVAs to counter health misinformation among adolescents.

Video Remix Affordances of SVAs: Stitch and Duet

SVAs offer interactive features that encourage user participation and creative collaboration. Users can remix videos with other user-generated clips (O'Toole, 2023), a feature commonly used for entertainment, such as layering a personal music performance alongside an existing music video (Kaye, 2022; Quick & Maddox, 2024). Usage of these features can be extended to health communication and promotion, as users can remix clips containing health misinformation to create correction videos, integrating the two into one video that represents a reaction or commentary on the original false content (Abidin, 2021). This can be done by utilizing SVAs' built-in remix tools stitch and duet, which provide distinct temporal and visual structures

(Bhandari & Bimo, 2022). Stitch presents videos in a sequential structure, placing corrections after the original misinformation. Duet presents videos side by side, placing corrections alongside the original misinformation.

The comparative effects of using stitch versus duet can be theorized through the cognitive theory of multimedia learning (Mayer, 2024). Stitch mirrors established refutational message structures in misinformation correction, which creates a clear structure that facilitates logical processing of corrections (Ariasi & Mason, 2011). However, it creates a spatial split-attention effect that imposes a temporal gap between information (Schroeder & Cenkci, 2018). This increases cognitive load by requiring users to maintain the original misleading claims in working memory while processing the subsequent correction (Paas et al., 2003). This may weaken the mental association between the false claims and the correction, hindering understanding and reducing correction effectiveness.

By contrast, duet presents corrections alongside original misinformation, which can divide users' attention between two competing visual streams. With misleading content often being more entertaining (Zhu et al., 2020) and engaging (Baghdadi et al., 2023), corrections may lose users' attention. Nevertheless, duet utilizes the spatial contiguity principle, which suggests that knowledge acquisition is more effective when related content is spatially close (Schroeder & Cenkci, 2018). The immediate comparison between false and accurate information reduces the cognitive load required to detect the discrepancies between them, allowing users to more easily grasp the two opposing views (Ginns, 2006).

Message Framing: Fact-Based and Narrative-Based

Misinformation corrections can also be presented using different framing strategies, which have been reported to influence varied cognitive, affective, and behavioral outcomes. Research identifies fact-based and narrative-based framing as two primary strategies (Song et al., 2025). Fact-based framing relies on evidence, statistics, and expert testimony to directly refute misinformation. Despite previously shown effectiveness of this approach in belief and knowledge change (Zebregs et al., 2015), fact-based corrections may fail to sustain viewers' attention necessary for cognitive processing in entertainment-driven digital environments (Wirz & Zai, 2025). Some studies also showed inconsistencies in its effectiveness (e.g. Ku et al., 2025; Nyhan et al., 2020) and occasional backfire effects (Walter & Murphy, 2018), with its effectiveness contingent upon preexisting beliefs and receptivity to corrections (Dan & Coleman, 2025).

By contrast, narrative-based framing has emerged as a viable approach that enhances engagement in digital environments (Aminpour et al., 2022). The anonymity of SVAs encourages sharing first-person lived experience of ED (Au & Cosh, 2022; Klug et al., 2022). These humanized narratives transformed clinical knowledge into relatable content, which can enhance understanding of the complex conditions and challenge negative stereotypes (Bonnamy et al., 2025; Musić et al., 2022). Also, with both content creators and viewers being uncelebrated, the perceived social distance between them is reduced (Orben & Dunbar, 2017). This cultivates parasocial relationships (Bhattacharya, 2023; Yuksel & Labrecque, 2016), a bond felt for content creators by viewers (Hartmann & Goldhoorn, 2011; Kaňková et al., 2024), generating a sense of intimacy (Baldor, 2022) and emotional attachment that can feel personal and authentic (Giles, 2002). Viewing short videos that depict real-life struggles and recovery stories of ED may then create unique social connection that evokes empathic responses. Thus, combining clinical facts with experiential engagement may create a promising way to develop positive attitudes and reduce stigma towards stigmatized conditions like ED (Thörel & Thörel, 2024).

Moreover, message framing and video remix formats may interact to enhance the effectiveness of ED misinformation corrections. When a video is remixed and created on SVAs as a correction of ED misinformation, those presented in stitch format resemble a rebuttal, whereas those presented in duet format simulate a social response. Thus, duet may foreground the contrast between misinformation and lived experience of ED, amplifying the impact of the narrative-based strategy.

Evaluating Correction Effectiveness Across Multiple Outcomes

The effectiveness of misinformation corrections on SVAs must be evaluated on multiple dimensions. An important outcome is misconception correction. Widespread misunderstandings of ED include the belief that they only affect young females (Sonnevile & Lipson, 2018) and that they are less serious than other mental health conditions (Klump et al., 2009). These misconceptions become major barriers to treatment and support

(Hamilton et al., 2022). Deeply held misconceptions can be resistant to modification (Dan & Coleman, 2025; Palminteri et al., 2017), even after being explicitly corrected (Ecker et al., 2022). We therefore measured reduction in misconceptions as a primary outcome.

Moreover, it is important to examine ED knowledge acquisition, which is a related but distinct cognitive outcome. Misconception correction refers to revising beliefs that contradict evidence, whereas knowledge acquisition refers to retaining new accurate information (Murphy & Mason, 2006). These two processes can operate independently (Murphy & Alexander, 2004). It is possible that individuals abandon misconceptions without acquiring correct understanding, or they simultaneously hold contradictory misconceptions alongside accurate knowledge. This distinction is particularly relevant for health misinformation corrections, in which effectiveness requires not only reducing false beliefs but also establishing accurate understanding.

Another important outcome is attitudinal change, defined as the changes in evaluative judgments varying in valence (Petty et al., 1997). The relationship between misconception correction and attitude change is complex and often inconsistent in the literature (Nyhan et al., 2020). While some studies showed that debunking vaccine misinformation improves vaccination attitudes (Schmid & Betsch, 2019), others found persistent negative attitudes even after successful misconception correction (Thornicroft et al., 2016). Because attitude change more strongly predicts health behaviors than cognitive change (Keer et al., 2010), attitudes is a crucial misinformation correction outcome.

Negative attitudes can develop into stigmatized responses that harm affected individuals. Mischaracterizing ED as lifestyle choices (Blackburn & Hogg, 2024) or vanity-seeking behaviors (Griffiths, 2021) reinforces stigmatization that blames the affected individuals (Doley et al., 2017). Interpersonal stigma, when accepted and incorporated into the identity of individuals diagnosed with ED, forms self-stigma (Corrigan & Rao, 2012). Healthy individuals can also form anticipated self-stigma when they project the application of these stigmatizing attitudes to themselves if they are to develop an ED (Heath et al., 2018). Since both interpersonal stigma (Linville et al., 2012) and self-stigma (Lannin et al., 2015) are major barriers to symptom disclosure and support seeking, reduction of both interpersonal stigma and self-stigma is important to measure.

Attitudes can have downstream consequences on health behaviors. According to the theory of planned behavior (Ajzen, 1991), attitudes predict behavioral intentions, which predict actual behaviors. Behavioral intentions to support affected individuals are particularly relevant in corrections of ED misinformation given the widespread stigmatization surrounding these conditions and the tendency toward illness concealment among affected individuals (Vandereycken & Van Humbeeck, 2008). If negative and stigmatizing attitudes are reduced, supportive behaviors towards affected individuals can increase, facilitating early intervention (Mills et al., 2023). Therefore, examining the pathway from attitude change to behavioral intentions to provide support can provide valuable insights for ED interventions.

Lastly, correction message shareability is an important yet often overlooked outcome. For misinformation corrections to be effective on SVAs, they need to be considered credible to motivate sharing them beyond the content creators' networks (Barta & Andalibi, 2021). False information, due to its novelty and emotion-provoking nature, typically outpaces accurate content on social media (Vosoughi et al., 2018). Given the diminishing effects of single exposure over time (Swire-Thompson et al., 2020), misinformation corrections must motivate sharing behavior to achieve wider distribution and sustain impact through peer networks.

Study Context

Using a single-exposure experimental design, we examined the effectiveness of misinformation correction videos that provided accurate ED information as a response to misinformation and tested how message framing and platform video remix affordances influence various outcomes. We contrasted fact-based corrections that present clinical data with narrative-based corrections that incorporate the lived experiences of a male ED patient, presented either after (stitch) or alongside (duet) misinformation. We measured cognitive, affective, and behavioral outcomes, including misconception correction, knowledge acquisition, attitude improvement, stigma reduction, and peer-support promotion. If correction videos that match the typical length and style of content on SVAs can effectively reduce misconceptions, they would represent cost-efficient and scalable correction strategies.

This study targeted Chinese adolescents aged 15 to 17 years, who were selected for their high engagement with SVAs and vulnerability to ED misconceptions during a key developmental stage (Ma et al., 2025; Wang & Togher, 2024). To reflect authentic platform experiences, all experimental stimuli were created in the style of Chinese TikTok (Douyin). This platform has a large adolescent user base (Chao et al., 2023) and shows prevalence of ED misinformation (Hu et al., 2023). The platform also shows technical compatibility with the experimental design, as it supports stitch and duet video remix formats (Radovanović, 2022). While the experimental stimuli were created in the style of Chinese TikTok, the underlying design principles were expected to generalize to corrections across similar SVAs.

Hypotheses

H1: Compared to misinformation without correction, exposure to correction videos will significantly

- (a) increase perceived credibility of the video,
- (b) increase sharing intention of the video,
- (c) reduce ED misconceptions,
- (d) enhance knowledge,
- (e) improve attitudes,
- (f) reduce interpersonal stigma,
- (g) reduce anticipated self-stigma, and
- (h) promote peer support intentions.

H2: Compared to fact-based framing, narrative-based framing will significantly

- (a) improve attitudes,
- (b) reduce interpersonal stigma,
- (c) reduce self-stigma, and
- (d) promote peer support intentions.

H3: Duet video remix format will enhance the effectiveness of narrative-based corrections on

- (a) attitudes,
- (b) interpersonal stigma,
- (c) self-stigma, and
- (d) peer support intentions.

H4: Attitudes will mediate the relationship between exposure to correction videos and peer support intentions.

METHODS

Design

The study employed a 2 (message framing: narrative-based vs. fact-based) × 2 (video remix format: stitch vs. duet) + 1 (control) experimental design (Figure 1). Five TikTok videos were created representing each condition (Figure 2). Participants were randomly assigned to watch one of the five videos and answer questions about the videos and ED. We adopted a post-test-only randomized design, measuring cognitive, affective, and behavioral outcomes. This is the standard protocol for stigma-related research (Shadish et al., 2002), as administering pre-test measures of knowledge, attitudes, and stigma carries a risk of pretest sensitization where participants who have just reported their stigma-related attitudes may infer the study's purpose and respond in a socially desirable manner to the subsequent manipulation. The study was granted ethical approval by the institution in which the study was conducted. Research materials and data are available at <https://osf.io/qtrwg>.

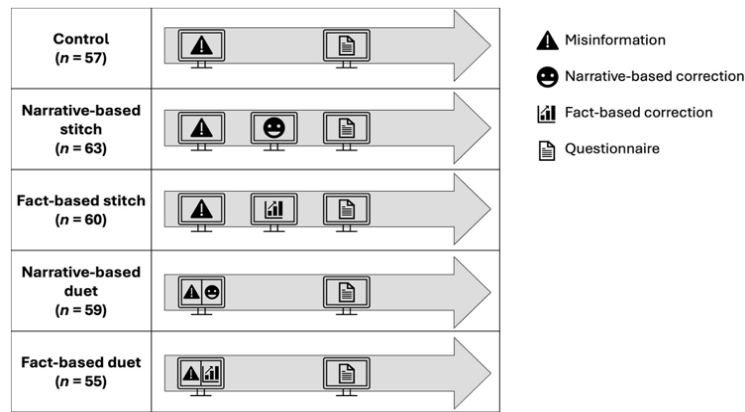


Figure 1. The experimental design (the authors' own work)

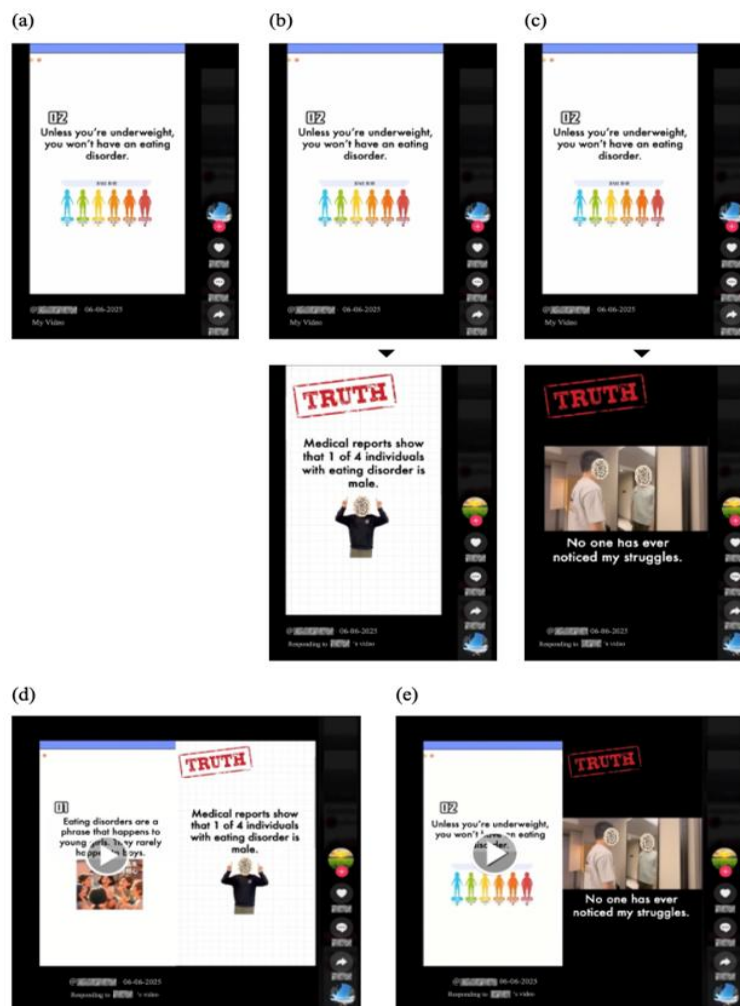


Figure 2. Screenshots of the videos created (with English translation): (a) misinformation video, (b) fact-based stitch video (top video followed by bottom video), and (c) narrative-based stitch video (top video followed by bottom video), (d) fact-based duet video, and (e) narrative-based duet video (all faces in these screenshots have been blurred to maintain actor confidentiality) (the authors' own work)

Participants

An *a priori* power analysis to achieve at least 80% power ($f = 0.175$; $\alpha = .05$) using G*Power 3.1 (Faul et al., 2007) indicated a required sample size of $N = 295$ for a one-way ANOVA (comparing five conditions) and $N = 259$ for a 2×2 factorial ANOVA for detecting interaction effects.

Table 1. Full transcript of lines in the videos (English translation)

Video condition	Scripts
Misinformation	<i>How much do you know about eating disorders? Eating disorders are common issues that happen during the teenage years. They mainly affect girls—boys rarely get them. It's a phase during adolescence. If you're not underweight, you don't need to worry about it. Eating disorders are just from dieting too much—you just need to eat more, and you'll be fine.</i>
Fact-based	<i>The truth about eating disorders that you need to know: eating disorders are psychosomatic illnesses where patients experience disrupted eating patterns and emotions. They might become obsessed with food, weight, or body shape and might try to control their weight through dieting, binge eating, or taking laxatives. Medical research shows that 1 in 4 patients is male. Only 6% of patients are underweight - most patients look 'normal.' Eating disorders have a higher mortality rate than depression. It isn't just extreme dieting - it's a fatal illness.</i>
Narrative-based	<i>"I always feel like there are two persons inside my body - one is me, and the other is 'it.' 'It' is the eating disorder, a psychosomatic illness where patients experience disrupted eating patterns and emotions. They might become obsessed with food, weight, or body shape and might try to control their weight through dieting, binge eating, or taking laxatives. The mirror says my body looks normal, but 'it' whispers: "not thin enough." Medical research shows that 1 in 4 patients is male, and only 6% of patients are underweight, so no one notices my struggle. I want to eat, but 'it' grabs me by the throat. It isn't extreme dieting - it's a fatal illness. My doctor told me it has a higher mortality rate than depression. Eating disorder is slowly consuming my life.</i>

The target population comprised senior secondary school students enrolled in public secondary education in China, with eligibility contingent on having access to Douyin. A convenience sampling strategy was used at the school level, in combination with random assignment to experimental conditions at the individual level. As access to minors in educational settings requires institutional approval, the participating school, a public co-education school in an urban area, was recruited through the professional networks of the research team. The schools served as a recruitment and administration venue rather than a unit of treatment. The present study examines how adolescents evaluate and respond to misinformation and corrective messages encountered in social media environments rather than classroom or curriculum-based interventions. A total of 294 Mainland Chinese senior secondary school students (aged 15-17, $M = 16.48$, $SD = 0.60$, 64.3% female, 35.4% male) participated. Only students with both parental consent and personal assent were allowed to participate, with the option to withdraw anytime. Participants received USD\$3 as a token of appreciation upon completion.

Procedure

Participants completed the procedure using a smartphone or computer. Participants were randomly assigned to view one of five short videos. Participants in the misinformation-only condition viewed a video presenting three false claims about ED as factual. Those in the remaining four conditions viewed a corrective response placed together with the same misleading claims, varying in message framing approach and video remix format. Afterward, all participants completed a questionnaire measuring perceived video credibility, sharing intention, ED misconceptions, knowledge, attitudes, stigma, and peer support intentions. For debriefing, participants received a fact sheet explaining the study purpose and providing evidence-based ED health information (e.g., Chesney et al., 2014; Gorrell & Murray, 2019).

Materials

Five videos were created to represent the different experimental conditions, each maintaining consistent production quality and near 60-second duration. The video clips were initially recorded using smartphones to replicate the typical production methods employed on SVAs (İlhan & Evran, 2025). The videos were designed to mirror real-life mental health content on SVAs, incorporating popular stylistic elements such as trending background music, visual transitions, on-screen text overlays, and sound effects. Chinese TikTok-specific interface elements were subsequently overlaid on the video clips.

The transcript of all five videos is presented in [Table 1](#). The misinformation video featured animation with text and graphics presenting three common ED misconceptions as factual, selected based on research identifying prevalent ED misunderstandings (O'Connor et al., 2021). Narrative-based correction videos featured a male university student actor in the video sharing personal ED experiences, highlighting the impact

of ED on a gender whose experience of these conditions is often overlooked (Greenberg & Schoen, 2008). We incorporated the prevailing “day in the life” format popular on SVAs (Maulidiyah et al., 2025), offering realistic portrayals of lived experience of ED. Fact-based correction videos presented evidence-based clinical information and statistics with text overlays directly addressing misconceptions. The stitch videos played the misinformation clip first, followed by the correction. The duet videos played the misinformation and correction clips in split-screen format with alternating active segments, maintaining the visual pairing characteristic of duet while optimizing comprehension (Figure 2).

Measurements

After watching the video, participants completed the questionnaire. All scales were translated to Chinese, using the usual back-translation procedure. Items within scales were randomized, and the presentation order of conceptually related measures was randomized among themselves.

Perceived video credibility

Participants rated the accuracy, authenticity, and believability of the viewed content on 7-point scales (1 = strongly disagree; 7 = strongly agree; $\alpha = .95$), adapted from prior credibility research (Appelman & Sundar, 2016). A sample item is “the video content was accurate.”

Sharing intention

Participants rated their willingness to share the viewed content on a 7-point scale using the statement “I will share this video” (1 = strongly disagree; 7 = strongly agree), consistent with measures used in social media sharing research (Lee & Ma, 2012).

ED misconception

Participants rated the credibility on 7-point scales (1 = extremely uncredible; 7 = extremely credible) of three claims about ED presented in the experimental stimuli: “ED are serious psychosomatic disorders,” “ED also affect men,” and “ED require professional support.” This approach was adapted from previous work (Vraga & Bode, 2018). Each statement was treated separately as in prior work (Feldhege et al., 2022), as they reflected different aspects of ED misconceptions.

ED knowledge

Participants read seven statements about ED, selected from prior work about common ED misconceptions (Bulik, 2016; Feldhege et al., 2022). A sample statement is “ED affect people of all genders.” Participants judged whether each statement was true, false, or uncertain. We used the proportion of accurate judgment of ED claims and the confidence level (proportion of selecting “uncertain”) to assess ED knowledge, following procedures of previous work (Feldhege et al., 2022).

ED attitudes: Opinion scale

The attitudes of participants towards ED were first gauged using the 6-item opinions scale (Crisafulli et al., 2010) on 5-point scales (1 = strongly disagree; 5 = strongly agree). A sample item is “individuals with ED are to blame for their condition.”

ED attitudes: Checklist method

Attitudes were also assessed using an adapted checklist method (Ku et al., 2025; Owen et al., 2010), which allowed participants to simultaneously endorse positive, negative, and neutral attitudes, capturing the ambivalence that often characterizes attitudes toward stigmatized health conditions. In this task, participants selected as many descriptors as they liked from 14 terms that reflected their attitudes. These items were categorized as positive (e.g., “supportive”), negative (e.g., “self-destructive”), or neutral (e.g., “condition”). Positive and negative words were selected from common words in recovery and stigma research, respectively (de Vos et al., 2017; Guy et al., 2022). Neutral words were selected from professional healthcare webpages describing ED (NHS England, 2021). Participants were given a score of 0 or 1 for each valence of attitudes, indicating whether they selected at least one descriptor of that category.

ED interpersonal stigma

Participants read a vignette about a teenager with ED symptoms (Mond et al., 2006) and then completed the ED stigma scale (Crisafulli et al., 2010). The scale contains four subscales: trivial, vain, weak, and blame. Participants indicated agreement with statements reflecting negative stereotypes towards that teenager with ED on 5-point scales (1 = strongly disagree; 5 = strongly agree; $\alpha = .88$). A sample item is "she is self-centered."

ED self-stigma

Anticipated self-stigma was measured by asking participants to rate how much shame they would feel if they had an ED. Participants responded to five items ($\alpha = .79$) adapted from the shame subscale of the self-stigma of depression scale (Barney et al., 2010), on 5-point scales (1 = strongly disagree; 5 = strongly agree). These items are appropriate for ED as well as they also reflect the typical shame felt by patients with ED (Keith et al., 2009). An example item is "I will feel shameful." We added one item to measure reluctance to reveal their conditions (i.e., "I will not want others to know"), as illness concealment is common for persons with ED (O'Connor et al., 2021).

Peer support behavioral intention

We measured intention to support peers with ED using four items ($\alpha = .86$) adapted from the European health literacy survey questionnaire (HLS-EU-Q47; Sørensen et al., 2013), a measure of health literacy behavior. We asked participants to imagine that one of their peers suffers from ED and report their willingness to do various behaviors to support them (1 = extremely unwilling; 7 = extremely willing). A sample item is "encourage them to get professional help."

Pilot Testing

We piloted the video clips created with university students who are active social media users ($n = 24$). They were assigned to watch one of the clips (misinformation video $n = 7$; fact-based video $n = 7$; narrative-based video $n = 10$) and answered questions about the authenticity and relatability of the video content: "To what extent does this video resemble an authentic TikTok video that users of the age group 16 to 18 will likely encounter?" "How closely does this video align with typical TikTok content in terms of styles, editing, and themes?" and "How likely will this video appear in an adolescent user's algorithmic feed?" Participants' ratings did not differ significantly across the three video clips on any of the three questions ($ps \geq .335$).

RESULTS

We conducted a series of one-way ANOVAs to examine the effects of remix correction videos addressing misinformation on each of the continuous dependent variables. Planned contrasts were conducted for any significant main effects to compare the pooled effects of the four experimental groups against the control group. We then conducted a series of 2 (message frame) $\times$ 2 (video remix) between-participants ANOVAs ($n = 237$), comparing only the four experimental groups while removing the control group from the analyses. Significant interaction effects were probed using simple effects tests. Levene's tests were used to test the assumption of homogeneity of variance. When this assumption is violated, for one-way ANOVAs, F-ratios were corrected using Welch's F. Robust 2 $\times$ 2 ANOVAs (20% trimmed means; 2,000 bootstrap resampling) were conducted using the WRS2 package (Mair & Wilcox, 2020) in R. Yuen's test for trimmed means (Yuen, 1974) was used to probe any significant robust interaction effects. For the checklist method measuring ED attitudes, which produced dichotomous outcomes, we used Chi-square tests and logistic regression analyses. Descriptive statistics of the variables are presented in [Table 2](#).

Perceived Video Credibility

The one-way ANOVA on perceived video credibility showed significant group differences, $F(4, 142.95) = 14.23, p < .001, \eta_p^2 = 0.24$, 95% confidence interval (CI) [0.15, 0.31] (Welch's correction). The planned contrast showed that all four correction videos were perceived as more credible than the misinformation video, $t(289) = -9.47, p < .001$, Cohen's $d = -1.40$, 95% CI [-1.71, -1.09]. The 2 $\times$ 2 ANOVA produced no significant results ($ps \geq .321$).

Table 2. Means (standard deviations) for continuous variables and number (percentage) for categorical variables as a function of experimental condition

	Control (n = 57)	Narrative-based		Fact-based	
		Stitch (n = 63)	Duet (n = 59)	Stitch (n = 60)	Duet (n = 55)
Video credibility	3.40 (1.85)	5.14 (1.17)	5.39 (1.31)	5.43 (1.26)	5.35 (1.23)
Sharing intention	3.26 (2.23)	4.59 (1.90)	5.09 (1.77)	4.28 (2.03)	4.38 (1.95)
"ED are disorders" credibility	4.05 (1.43)	5.65 (1.31)	5.48 (1.44)	5.32 (1.51)	5.24 (1.26)
"ED affect men" credibility	5.74 (0.97)	6.22 (1.04)	6.15 (1.34)	5.82 (1.14)	5.91 (1.06)
"ED require support" credibility	5.09 (1.20)	5.94 (1.26)	6.10 (1.21)	5.40 (1.61)	5.62 (1.27)
Knowledge accuracy	0.62 (0.22)	0.81 (0.17)	0.72 (0.19)	0.78 (0.03)	0.76 (0.24)
Knowledge confidence	0.39 (0.20)	0.25 (0.14)	0.31 (0.17)	0.27 (0.17)	0.31 (0.18)
Opinion scale	2.00 (0.40)	2.14 (0.46)	2.10 (0.50)	1.99 (0.54)	1.90 (0.45)
Positive attitude (%)	48 (0.84)	52 (0.83)	53 (0.90)	49 (0.82)	44 (0.80)
Negative attitude (%)	30 (0.53)	24 (0.38)	18 (0.31)	36 (0.60)	30 (0.55)
Neutral attitude (%)	47 (0.82)	51 (0.81)	50 (0.85)	47 (0.78)	50 (0.91)
Other-stigma	2.38 (0.61)	2.28 (0.49)	2.08 (0.51)	2.27 (0.57)	2.36 (0.50)
Trivial	1.95 (0.83)	1.84 (0.67)	1.66 (0.66)	1.87 (0.79)	1.94 (0.63)
Vain	2.22 (0.83)	2.12 (0.68)	1.93 (0.67)	2.06 (0.67)	2.19 (0.66)
Weak	2.72 (0.72)	2.62 (0.69)	2.38 (0.65)	2.66 (0.81)	2.66 (0.64)
Blame	2.73 (0.63)	2.63 (0.64)	2.45 (0.65)	2.60 (0.73)	2.78 (0.61)
Self-stigma	2.59 (0.72)	2.75 (0.91)	2.85 (0.80)	2.85 (1.08)	2.91 (0.93)
Peer support intention	6.05 (1.09)	6.05 (0.96)	6.24 (0.91)	5.91 (1.11)	5.87 (0.97)

Sharing Intention

The one-way ANOVA on sharing intention showed significant group differences, $F(4, 143.63) = 6.01, p < .001, \eta_p^2 = 0.08$, 95% CI [0.03, 0.14] (Welch's correction). Correction videos were more likely to be shared than the misinformation video, $t(289) = -4.52, p < .001$, Cohen's $d = -0.67$, 95% CI [-0.96, -0.37]. The 2×2 ANOVA showed a significant main effect for message frame, $F(1, 233) = 4.08, p = .044, \eta_p^2 = 0.02$, 95% CI [0.00, 0.06], with narrative-based videos ($M = 4.84, SE = 0.17$) more likely to be shared than fact-based videos ($M = 4.33, SE = 0.18$). The main effect for video remix and the interaction effect were not significant ($ps \geq .233$).

ED Misconceptions: "ED Are a Phase"

For the ED as "just a phrase" misconception, one-way ANOVA showed group differences, $F(4, 289) = 11.90, p < .001, \eta_p^2 = 0.14$, 95% CI [0.07, 0.21]. Participants in the misinformation condition considered the statement "ED are serious psychosomatic disorders" less credible than those in experimental conditions (pooled), $t(289) = -6.64, p < .001$, Cohen's $d = 0.98$, 95% CI [-1.28, -0.68]. The 2×2 ANOVA produced no significant results ($ps \geq .114$).

ED Misconceptions: "ED Only Affect Females"

For the gender distribution misconception, the one-way ANOVA was not significant ($p = .076$). However, the 2×2 ANOVA showed a significant message frame effect, $F(1, 233) = 4.71, p = .031, \eta_p^2 = 0.02$, 95% CI [0.00, 0.07], with narrative-based video viewers ($M = 6.19, SE = 0.10$) finding the claim "ED also affect men" more credible than fact-based video viewers ($M = 5.86, SE = 0.11$).

ED Misconceptions: "ED Do Not Require Treatment"

For the treatment misconception, one-way ANOVA showed group differences, $F(4, 143.88) = 6.28, p < .001, \eta_p^2 = 0.07$, 95% CI [0.02, 0.13], with those in the misinformation condition considering the statement "ED require professional support" less credible than those in experimental conditions, $t(289) = -3.47, p < .001$, Cohen's $d = 0.51$, 95% CI [-0.81, -0.22]. The 2×2 ANOVA revealed a significant message frame effect, $F(1, 233) = 8.48, p = .004, \eta_p^2 = 0.04$, 95% CI [0.004, 0.09], with narrative-based video viewers ($M = 6.02, SE = 0.12$) finding the statement "ED require professional support" more credible than fact-based video viewers ($M = 5.51, SE = 0.13$).

ED Knowledge

ED knowledge accuracy showed significant group differences, $F(4, 142.87) = 8.02, p < .001, \eta_p^2 = 0.10$, 95% CI [0.03, 0.16] (Welch's correction). Experimental groups showed higher accuracy (72.1%-81.1%) than the misinformation group (61.7%), $t(289) = -4.94, p < .001$, Cohen's $d = -0.73$, 95% CI [-1.03, -0.43]. A robust 2×2 ANOVA showed no significant main effects ($ps \geq .196$) but a marginally significant message frame $\times$ video remix interaction, $F(1, 233) = 3.32, p = .071, \eta_p^2 = 0.02$, 95% CI [0.00, 0.07]. Yuen's simple effects tests showed that, for narrative-based videos, knowledge accuracy was higher in duet formats ($M = 0.81, SD = 0.17$) than stitch formats ($M = 0.72, SD = 0.19$), $t(73.64) = 2.88, p = .005$.

Knowledge confidence showed significant group differences, $F(4, 289) = 6.05, p < .001, \eta_p^2 = 0.08$, 95% CI [0.02, 0.13], with experimental groups reporting lower uncertainty (25.2%-31.2%) about their ED knowledge than the misinformation group (39.3%), $t(289) = 4.33, p < .001$, Cohen's $d = 0.64$, 95% CI [0.34, 0.93]. The 2×2 ANOVA showed no significant main effects ($ps \geq .630$) but a significant interaction effect, $F(1, 233) = 5.44, p = .021, \eta_p^2 = 0.02$, 95% CI [0.00, 0.07], with narrative-based duet videos producing the lowest knowledge uncertainty ($M = 0.25, SD = 0.14$).

ED Attitudes: Opinion Scale

For ED attitudes indicated by the opinion scale, significant group differences emerged ($p = .044$), but the contrast was not significant ($p = .650$). The 2×2 ANOVA showed a significant effect for message frame, $F(1, 233) = 7.72, p = .006, \eta_p^2 = 0.03$, 95% CI [0.00, 0.09], with narrative-based videos ($M = 1.95, SE = 0.04$) producing lower negative attitudes than fact-based videos ($M = 2.12, SE = 0.05$). There was no significant main effect for video remix nor interaction effect ($ps \geq .305$).

ED Attitudes: Checklist Method

A chi-square test showed group differences in negative attitude word endorsement, $\chi^2(4) = 14.50, p = .006$. Participants viewing the fact-based stitch video ($Z = 2.27$) were more likely to while those viewing the narrative-based duet video ($Z = -2.83$) were less likely to endorse negative attitude words than the other groups. Logistic regression showed that message frame predicted the endorsement of negative attitude words, $b = -0.89$, Wald $\chi^2(1) = 5.81, p = .016$, with narrative-based framing reducing the likelihood of having negative attitudes (OR = 0.41). There were no significant findings for positive or neutral attitude word endorsement ($ps \geq .071$).

ED Stigma

While self-stigma showed no significant effects in the one-way ANOVA and 2×2 ANOVA ($ps > .229$), stigma towards others with ED varied by condition. The one-way ANOVA showed significant group differences ($p = .026$), but the contrast was not significant ($p = .095$). The 2×2 ANOVA showed a significant main effect for message frame, $F(1, 233) = 4.11, p = .044, \eta_p^2 = 0.02$, 95% CI [0.00, 0.06], and a message frame $\times$ video remix interaction, $F(1, 233) = 4.49, p = .035, \eta_p^2 = 0.02$, 95% CI [0.00, 0.07]. For narrative-based videos, interpersonal stigma was lower in duet format ($M = 2.08, SD = 0.51$) than stitch format ($M = 2.28, SD = 0.49$), $F(1, 233) = 4.31, p = .039$. For fact-based videos, there were no differences between stitch ($M = 2.27, SD = 0.57$) and duet ($M = 2.36, SD = 0.50$) formats. For duet videos, interpersonal stigma was lower in narrative-based than fact-based framing, $F(1, 233) = 8.27, p = .004$. For stitch videos, there were no differences between message frames, $F(1, 233) = 0.004, p = .947$. The significant interaction effects were mainly driven by the blame subscale, $F(1, 233) = 4.28, p = .040, \eta_p^2 = 0.02$, 95% CI [0.00, 0.07], showing that the narrative-based duet video reduced blame towards persons with ED. The main effect for video remix format was not statistically significant ($p = .439$).

Peer Support Behavioral Intentions

While the one-way ANOVA did not show significant differences on peer support behavioral intentions ($p = .324$), the 2×2 ANOVA showed a marginally significant message frame effect, $F(1, 233) = 3.84, p = .051, \eta_p^2 = 0.02$, 95% CI [0.00, 0.06], with narrative-based corrections ($M = 6.14, SE = 0.09$) producing slightly higher support intention than fact-based corrections ($M = 5.89, SE = 0.09$). The video remix effect and the interaction effect were not significant ($ps \geq .382$). We further tested whether the effect of message framing (fact-based coded = 0; narrative-based = 1) on peer support behavioral intentions was mediated by negative ED attitudes

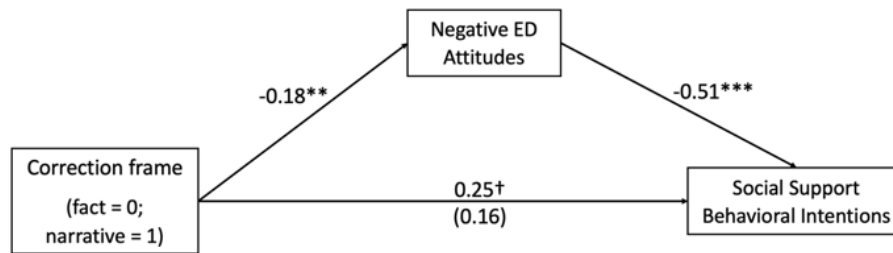


Figure 3. The mediation of ED attitude between narrative-based corrections and social support behavioral intention (the authors' own work)

(measured by opinion scale), based on 1000 bootstrap resamples. The confidence intervals for the indirect effects reported were 95% bias-corrected bootstrap confidence intervals. The results showed a significant indirect effect of correction frame on peer support behavioral intentions via ED negative attitudes, $ab = 0.09$, $SE = 0.04$, 95% CI [0.03, 0.19] (Figure 3). Narrative-based corrections predicted lower negative attitudes, $b = -0.18$, $SE = 0.06$, 95% CI [-0.30, -0.05], and negative attitudes predicted lower behavioral intention to provide social support, $b = -0.51$, $SE = 0.13$, 95% CI [-0.76, -0.27]. When accounting for the indirect effect, the direct effect of instructional message frame on behavioral intention to support persons with ED became nonsignificant, $b = 0.16$, $SE = 0.13$, 95% CI [-0.12, 0.42].

Summary

In sum, our findings demonstrated that brief videos mirroring content on SVAs produced effective outcomes, successfully correcting ED misconceptions, enhancing knowledge, and reducing negative attitudes and stigma (**H1** supported). Correction videos incorporating lived experiences of ED exhibited superior effects in correcting misconceptions, reducing negative attitudes and stigma, and promoting peer support intentions (**H2** supported). The effects of narratives on knowledge acquisition and stigma reduction were further enhanced by placing corrections alongside the original misinformation (**H3** partially supported). Negative attitudes were reduced after viewing narrative-based videos, which in turn predicted greater motivation to support peers with ED (**H4** supported).

DISCUSSION

The current findings highlighted how participatory digital media environments reshape the way health misinformation can be challenged. As communication increasingly occurs within socially interactive and algorithmically curated online platforms, the effectiveness of corrective messages depends not only on factual accuracy but also on their fit with the engagement norms of these spaces. This study examined remix correction videos that visually integrate ED misinformation and its correction on SVAs among adolescents. SVAs enable peer-to-peer health communication where users actively share and reinterpret content (Lau et al., 2025), but this same participatory culture also amplifies misinformation (Kirkpatrick & Lawrie, 2024). Our results suggested that effective corrections require adapting to adolescents' fast-paced, visually oriented, and emotionally expressive engagement styles on these platforms (Kelty & Erickson, 2018; Xu et al., 2023).

Using remix features of SVAs to create reaction videos to misinformation offers a promising way to work within adolescents' everyday digital spaces. This strategy acknowledged that adolescents do not independently seek out corrections on SVAs. Instead, corrections must meet them where misinformation circulates. Remix correction videos on SVAs connect the original misinformation with its correction within the same video, which increases the likelihood of misinformation and its corrections being co-activated in working memory, facilitating their integration and enabling revision of prior knowledge (Kendeou & O'Brien, 2014). Remix correction videos further gain distribution through algorithmic linkages to the original misinformation. This redirects the same attention-capturing features that amplify misinformation toward the corrective messages, enabling just-in-time corrections when young users encounter misinformation.

Narrative-based corrections, in particular, emerge as a promising approach for health misinformation correction on SVAs. Rather than relying solely on factual evidence, narrative-based remix correction videos embed misinformation corrections within personal stories (Moyer-Gusé, 2008), sustaining users' attention

and engagement (Sangalang et al., 2019). The personal nature of lived experience allows users to become immersed in the stories, enhancing their believability (Lu & Jin, 2024). Narratives also motivate viewers to process the content through experiential instead of analytical pathways, reducing their psychological resistance to the conveyed messages (Green, 2006). This approach increases receptivity to novel ideas that challenge preexisting beliefs (Kreuter et al., 2007; Palminteri et al., 2017), facilitating belief change. Consistent with previous work showing the effectiveness of lived experience in formal ED training (Bonnamy et al., 2025), our findings demonstrated that depicting lived experience in videos on SVAs successfully reduced misconceptions about the conditions.

Beyond cognitive change, attitudinal change is a particularly important outcome when addressing stigmatized health conditions. The present study focused on ED, often stigmatized health conditions. Negative attitudes and stigma towards ED often delay symptom disclosure and treatment-seeking (Mills et al., 2023). While self-stigma showed no significant group differences in our study, narrative-based framing significantly reduced adolescents' negative attitudes and interpersonal stigma towards ED. These findings likely reflect viewers' perceived emotional intimacy with the creators (Yuksel & Labrecque, 2016). Participatory culture on SVAs goes beyond content sharing and allows users to collectively build emotionally meaningful connections with one another (Kelty & Erickson, 2018). This encourages patients to open up about their struggles with ED, signaling authenticity around a stigmatized condition and evoking empathic responses (Allen & Bird, 2019). Humanized narratives transformed clinical knowledge into relatable content, motivating viewers to see the content as emotionally meaningful interactions rather than informational transmissions (Kreuter et al., 2007). Thus, our findings suggested that effective misinformation corrections on entertainment-driven platforms should combine clinical facts with experiential engagement when targeting stigmatized conditions.

It is important to note that narrative-based framing reduced negative attitudes but failed to increase positive ones, suggesting that positive and negative attitudes towards ED might operate as distinct psychological dimensions rather than opposite ends of a single continuum. While our corrections effectively neutralized harmful attitudes such as those framing ED as vanity-driven lifestyle choices, fostering supportive attitudes might require additional efforts and strategies. Future interventions could incorporate recovery stories that demonstrate resilience and highlight the role of support systems to further develop positive attitudes (Linville et al., 2012), shifting adolescents from misconceptions to genuine understanding.

Our findings demonstrated an important pathway from attitude change to behavioral outcomes. Narrative-based corrections influenced peer support intentions via their effects on reducing negative attitudes towards ED. Viewing the lived experience created a sense of emotional intimacy (Yuksel & Labrecque, 2016), evoking empathic responses to the struggles of ED. This motivated viewers to not only adjust their attitudes towards this stigmatized group but also to actively provide social support. Support can facilitate illness disclosure and help-seeking, which is critical for conditions where shame often leads to concealment (Swan & Andrews, 2003). Since behavioral intentions serve as strong indicators of actual behaviors (Armitage & Conner, 2001), this cascade from a correction video to potential peer support behaviors represented an important mechanism through which misinformation correction may ultimately contribute to early intervention for persons with ED.

The findings also highlighted the critical yet often overlooked dimension of message shareability in health misinformation correction. For correction videos to be effective, they should become shareable social content to signal awareness and support, in order to extend their reach beyond initial viewers on SVAs (Barta & Andalibi, 2021). While previous correction efforts prioritizing accuracy may struggle to drive content dissemination among young users, the brevity of a one-minute correction video encourages more viewers to watch it through to the end, allowing corrections to reach broader audiences. Incorporating lived experience in these videos can further enhance shareability by creating parasocial relationships between content creators and viewers (Yuksel & Labrecque, 2016), rendering the content more relatable than clinical facts (Sangalang et al., 2019). Thus, correction videos using narrative-based framing provided a vital mechanism for algorithmic amplification, creating the repeated exposures necessary to sustain their impact in algorithm-driven environments.

Lastly, our comparison of the video remix affordances of SVAs revealed that using duet to present narrative-based corrections and misinformation side by side consistently outperformed stitch in facilitating

both knowledge acquisition and stigma reduction. The side-by-side presentation created immediate visual juxtaposition, allowing users to process misinformation and corrections simultaneously rather than sequentially. In line with the spatial contiguity principle (Schroeder & Cenkci, 2018), this format reduced cognitive load and enhanced elaboration through immediate contrasts between misinformation and its correction. Importantly, whereas presenting corrections after misinformation resembles rebuttals, presenting the two alongside each other shows a person's emotional reactions towards misinformation in real-time. Our findings suggested that simulated social interaction created a more immediate empathetic connection that challenges ED stigma, highlighting the relevance of platform affordances in intervention design.

We noted several limitations. First, we only examined immediate correction effects, which may diminish over time (Ecker et al., 2020). Second, we tested single exposure to misinformation and correction videos, whereas users of SVAS typically encounter multiple videos about a topic. Third, we relied on a post-test-only design without baseline measurements of participants' prior knowledge, attitudes, or stigma levels. Although participants were randomly assigned and experimental effect consistently observed, comparability across conditions on baseline measures was not assessed. Consequently, group equivalence on these focal constructs was established probabilistically rather than empirically, and the possibility of imbalance cannot be entirely excluded. Fourth, our controlled experimental setting did not fully replicate the complex digital environment of SVAs that users navigate daily. Real-world usage of SVAs involves distractions, varying attention spans, and social validation metrics such as likes and comments that shape content perception. Fifth, although the participating school functioned as a recruitment venue only, the sampling drawn in a single site was not statistically representative of all Chinese senior secondary students. Students in private, vocational, or rural schools might differ in digital literacy and socioeconomic background in ways that moderate the magnitude of the observed effects. This limited the generalizability of the findings, and replication across a broader range of school types and regions is needed. Finally, the present study solely focused on ED misinformation corrections on TikTok among Chinese adolescents, limiting the generalizability of the findings to other countries or platforms.

Future research should address these limitations by testing multiple exposure scenarios with repeated and varied misinformation and correction doses to better approximate real-world content consumption patterns, collecting real platform engagement data to validate experimental findings. To investigate the generalizability of the findings about the impact of our correction strategies, future work should explore their effectiveness across broader health topics, diverse audience segments, and different digital platforms. Future studies should also employ broader sampling frameworks to replicate the current findings across diverse school types, regions, and countries. Importantly, as the features of SVAs continuously evolve, ongoing assessment of how new platform affordances can be utilized remains crucial for developing adaptive misinformation interventions for public health communication and promotion.

CONCLUSION

As SVAs continue to evolve, our work underscored the importance of developing health misinformation correction strategies that can thrive within emerging digital spaces, offering new pathways to reach adolescents with accurate and humanized content in their native digital environments. The current findings offered empirical support for a strategy that aligns with the cognitive and psychological processes that drive misinformation correction in these entertainment-driven digital environments. Exposure to a brief misinformation correction video featuring humanized lived experience of health conditions can effectively address misconceptions and stigmatizing attitudes. These results suggested that resources should be shifted toward producing high volumes of short, rapid-response videos rather than lengthy misinformation correction materials. Health educators can achieve meaningful outcomes by creating content that incorporates lived experience to resonate with young users and evoke their empathic responses towards stigmatized groups.

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Ethics declaration: This study was approved by the Institutional Review Board at Hong Kong Baptist University on 11 June 2025 with approval number REC-24-25-05-06. Written informed consent was obtained from participants and their parents or legal guardians through the school administration. Participants were informed of the voluntary nature of participation and of their right to withdraw at any time without penalty, and all received an electronic debriefing explaining the purpose of the study upon completion. No directly identifying information was recorded, and the data cannot be linked to individual participants. Data are stored securely, accessible only to the principal investigator, and are handled in accordance with the institution's policy; they will be retained for three years before secure deletion.

AI statement: During the preparation of this manuscript, the authors used Anthropic's Claude to improve the clarity and readability of the text and to assist in identifying relevant literature. All content was written by the authors, and all AI-suggested sources were independently located and verified against the original publications. Generative AI was not used to generate data, conduct analyses, or produce figures. The authors reviewed and edited the output and takes full responsibility for the content of the publication.

Declaration of interest: The authors declared no competing interest.

Data availability: Data analyzed during this study are available at <https://osf.io/qtrwg>.

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